MEDICINOVA INC
Form S-4/A
November 18, 2009
Table of Contents

As filed with the Securities and Exchange Commission on November 18, 2009

Registration No. 333-161969

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

Amendment No. 3

to

FORM S-4

REGISTRATION STATEMENT

Under

The Securities Act of 1933

MEDICINOVA, INC.

(Exact name of Registrant as specified in its charter)

Delaware	2834	33-0927979
(State or Other Jurisdiction of Incorporation or Organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

4350 La Jolla Village Drive, Suite 950

San Diego, CA 92122

Tel: (858) 373-1500

(Address, including zip code, and telephone number, including area code, of Registrant s principal executive offices)

Shintaro Asako

Chief Financial Officer

MediciNova, Inc.

4350 La Jolla Village Drive, Suite 950

San Diego, CA 92122

Tel: (858) 373-1500

Fax: (858) 373-7000

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

David E. Schulman	**Andrew A. Sauter**	**Brett D. White**
William J. Tuttle	**Chief Executive Officer, President**	**Jennifer Fonner DiNucci**
Dechert LLP	**and Chief Financial Officer**	**Cooley Godward Kronish LLP**
1775 I Street, N.W.	**Avigen, Inc.**	**Five Palo Alto Square**
Washington, D.C. 20006	**1301 Harbor Bay Parkway**	**3000 El Camino Real**
Tel: (202) 261-3300	**Alameda, California 94502**	**Palo Alto, CA 94306**

Fax: (202) 261-3333 **Tel: (510) 748-7150** **Tel: (650) 843-5000**

Fax: (510) 748-7155 **Fax: (650) 849-7400**

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effectiveness of this registration statement and the satisfaction or waiver of all other conditions under the merger agreement described herein.

If the securities being registered on this Form are being offered in connection with the formation of a holding company and there is compliance with General Instruction G, check the following box. ¨

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act.

Large accelerated filer ¨	Accelerated filer ¨
Non-accelerated filer ¨ (Do not check if a smaller reporting company)	Smaller reporting company x

If applicable, place an X in the box to designate the appropriate rule provision relied upon in conducting this transaction:

Exchange Act Rule 13e-4(i) (Cross-Border Issuer Tender Offer) ¨

Exchange Act Rule 14d-1(d) (Cross-Border Third-Party Tender Offer) ¨

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

Table of Contents

The information in this joint proxy statement/prospectus is not complete and may be changed. We may not issue or sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary joint proxy statement/prospectus is not an offer to sell these securities, and we are not soliciting any offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY- SUBJECT TO COMPLETION-DATED NOVEMBER 18, 2009

PROPOSED MERGER YOUR VOTE IS VERY IMPORTANT

The board of directors of MediciNova, Inc. and Avigen, Inc. each have approved a merger in which the businesses of MediciNova and Avigen will be combined. We are sending this joint proxy statement/prospectus to you to ask you to vote to adopt the Agreement and Plan of Merger by and among MediciNova, Absolute Merger, Inc. and Avigen, dated as of August 20, 2009, or the Merger Agreement, and certain other matters described herein.

The Merger Agreement provides that, upon the terms and subject to the conditions set forth therein, Absolute Merger, Inc., a wholly-owned subsidiary of MediciNova, or Absolute Merger, will merge with and into Avigen, with Avigen continuing as the surviving entity and wholly-owned subsidiary of MediciNova. We refer to this transaction as the Merger.

Under the terms of the Merger Agreement, at the effective time of the Merger, each share of Avigen s common stock, together with the associated preferred stock purchase right, or Avigen common stock, will be cancelled and extinguished and automatically converted into the right to receive:

one of the following:

for each share of Avigen common stock with respect to which an election to receive cash has been made, the right to receive cash equal to the First Payment Consideration (as defined herein) and Second Payment Consideration (as defined herein), if any;

for each share of Avigen common stock for which an election to receive secured convertible notes to be issued by MediciNova, or the Convertible Notes, which will be governed by the indenture by and between MediciNova and American Stock Transfer & Trust Company, LLC, or the Indenture, described under the section of this joint proxy statement/prospectus entitled Description of Convertible Notes has been made, the right to receive one Convertible Note with a face value equal to the First Payment Consideration and Second Payment Consideration, if any; or

for each share of Avigen common stock with respect to which no valid election has been made, the right to receive cash equal to 50 percent of the First Payment Consideration and Second Payment Consideration, if any, and Convertible Notes with a face value equal to 50 percent of the First Payment Consideration and Second Payment Consideration, if any; and

one Contingent Payment Right, or a CPR, granting the holder thereof the rights described under the section entitled Certain Terms of the Merger Agreement and the CPR Agreement Contingent Payment Rights herein.

MediciNova common stock is listed on the NASDAQ Global Market, or Nasdaq, under the symbol MNOV and on the Hercules Market of the Osaka Securities Exchange, or the OSE, under the code 4875, and Avigen common stock is listed on Nasdaq under the symbol AVGN.

Your vote is very important. MediciNova and Avigen cannot complete the Merger unless (1) the MediciNova stockholders vote to adopt the Merger Agreement and approve the issuance of the Convertible Notes and (2) the Avigen stockholders vote to adopt the Merger Agreement. **Your failure to vote will have the same effect as a vote against the Merger.**

MediciNova and Avigen each will hold a special meeting of stockholders to vote on proposals related to the Merger. The special meetings will be held at the dates, times and locations set forth below. Whether or not you plan to attend your company s special meeting, please take the time to submit your proxy either by completing and mailing the enclosed proxy card or using the telephone or Internet voting procedures described on your proxy card as soon as possible. If your shares of MediciNova common stock or Avigen common stock are held in an account with a bank, broker or other nominee, you must instruct your bank, broker or other nominee how to vote those shares.

Table of Contents

For MediciNova stockholders:

December 17, 2009 at 3:00 p.m. Pacific Standard Time at Northern Trust Tower, 4370 La Jolla Village Drive, Suite 210, San Diego, California 92122.

For Avigen stockholders:

December 17, 2009 at 3:00 p.m. Pacific Standard Time at 1301 Harbor Bay Parkway, Alameda, California 94502.

The board of directors of MediciNova recommends that MediciNova stockholders vote FOR adoption of the Merger Agreement and approval of the issuance of the Convertible Notes and FOR any adjournment of the MediciNova special meeting, if necessary, to solicit additional proxies.

The board of directors of Avigen recommends that Avigen stockholders vote FOR adoption of the Merger Agreement and FOR any adjournment of the Avigen special meeting, if necessary, to solicit additional proxies.

This joint proxy statement/prospectus gives you detailed information regarding the special meetings and the Merger. We urge you to read this joint proxy statement/prospectus carefully including Risk Factors beginning on page 22 for a discussion of risks relating to the Merger.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved the Convertible Notes and MediciNova common stock to be issued upon conversion thereof or passed upon the adequacy or accuracy of this joint proxy statement/prospectus. Any representation to the contrary is a criminal offense.

This joint proxy statement/prospectus is dated November 18, 2009 and is first being mailed to MediciNova stockholders and Avigen stockholders on or about November 19, 2009.

Table of Contents

MEDICINOVA, INC.

4350 La Jolla Village Drive, Suite 950

San Diego, CA 92122 (858) 373-1500

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

TO BE HELD ON DECEMBER 17, 2009

Dear MediciNova Stockholder:

On behalf of the board of directors of MediciNova, Inc., a Delaware corporation, we are pleased to deliver this joint proxy statement/prospectus relating to the proposed merger by which MediciNova, Inc. is proposing to acquire Avigen, Inc., a Delaware corporation, pursuant to that certain Agreement and Plan of Merger, dated as of August 20, 2009, among MediciNova, Absolute Merger, Inc., a Delaware corporation and direct wholly-owned subsidiary of MediciNova, and Avigen, Inc. A special meeting of stockholders of MediciNova, Inc. will be held on December 17, 2009 at 3:00 p.m. Pacific Standard Time at Northern Trust Tower, 4370 La Jolla Village Drive, Suite 210, San Diego, California 92122 for the following purposes:

Proposal No. 1. To consider and vote upon the adoption of the Merger Agreement and issuance of the Convertible Notes; and

Proposal No. 2. To consider and vote upon an adjournment of the MediciNova special meeting, if necessary, if a quorum is present, to solicit additional proxies if there are not sufficient votes in favor of Proposal No. 1.

The MediciNova special meeting will also address such other business as may properly come before the MediciNova special meeting or any adjournment or postponement thereof.

The record date for the determination of stockholders entitled to notice of, and to vote at, the MediciNova special meeting and any adjournment or postponement thereof is October 30, 2009. Only stockholders of record at the close of business on that date are entitled to notice of, and to vote at, the MediciNova special meeting. At the close of business on the record date, MediciNova had outstanding and entitled to vote 12,103,969 shares of common stock.

Your vote is important. The affirmative vote of the holders of a majority of the outstanding shares of MediciNova common stock on the record date for the MediciNova special meeting is required for approval of Proposal No. 1 above. The affirmative vote of the holders of a majority of the votes cast in person or by proxy at the MediciNova special meeting is required to approve Proposal No. 2 above. THE APPROVAL OF PROPOSAL NO. 1 IS A CONDITION TO THE COMPLETION OF THE MERGER. Even if you plan to attend the MediciNova special meeting in person, we request that you sign and return the enclosed proxy card or vote by telephone or by using the Internet as instructed on the enclosed proxy card and thus ensure that your shares will be represented at the MediciNova special meeting if you are unable to attend. If you sign, date and mail your proxy card without indicating how you wish to vote, your proxy will be counted as a vote in favor of each of Proposal Nos. 1 and 2 above. If you fail to return your proxy card or vote by telephone or by using the Internet, your shares will not be counted for purposes of determining whether a quorum is present at the MediciNova special meeting, and the effect will be a vote against the adoption of the Merger Agreement and issuance of the Convertible Notes. If you do attend the MediciNova special meeting and wish to vote in person, you may withdraw your proxy and vote in person.

The accompanying joint proxy statement/prospectus describes the Merger and the actions to be taken at the special meeting and provides additional information about the parties involved. Please give this information your careful attention.

Table of Contents

It is important that your shares are represented at the special meeting. Even if you plan to attend the meeting in person, we hope that you will either complete and mail the enclosed proxy card or use the telephone or Internet voting procedures described on your proxy card as soon as possible. This will not limit your right to attend or vote at the meeting.

By Order of the Board of Directors,

Yuichi Iwaki, M.D., Ph.D.

President, Chief Executive Officer and Director

San Diego, California

November 18, 2009

THE MEDICINOVA BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT THE MERGER IS ADVISABLE AND FAIR TO, AND IN THE BEST INTERESTS OF, MEDICINOVA AND ITS STOCKHOLDERS, AND RECOMMENDS THAT MEDICINOVA STOCKHOLDERS VOTE FOR PROPOSAL NO. 1 TO ADOPT THE MERGER AGREEMENT AND APPROVE THE ISSUANCE OF THE CONVERTIBLE NOTES. THE MEDICINOVA BOARD OF DIRECTORS ALSO RECOMMENDS THAT MEDICINOVA STOCKHOLDERS VOTE FOR PROPOSAL NO. 2 TO ADJOURN THE SPECIAL MEETING, IF NECESSARY, IF A QUORUM IS PRESENT, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF ADOPTION OF THE MERGER AGREEMENT AND ISSUANCE OF THE CONVERTIBLE NOTES.

Table of Contents

AVIGEN, INC.

1301 Harbor Bay Parkway

Alameda, California 94502

NOTICE OF SPECIAL MEETING OF STOCKHOLDERS

TO BE HELD ON DECEMBER 17, 2009

Dear Avigen Stockholder:

On behalf of the board of directors of Avigen, Inc., a Delaware corporation, we are pleased to deliver this joint proxy statement/prospectus relating to the proposed merger by which MediciNova, Inc., a Delaware corporation, is proposing to acquire Avigen, Inc. pursuant to that certain Agreement and Plan of Merger, dated as of August 20, 2009, among MediciNova, Absolute Merger, Inc., a Delaware corporation and direct wholly-owned subsidiary of MediciNova, and Avigen, Inc. A special meeting of stockholders of Avigen, Inc. will be held on December 17, 2009 at 3:00 p.m. Pacific Standard Time at 1301 Harbor Bay Parkway, Alameda, California 94502 for the following purposes:

Proposal No. 1. To consider and vote upon the adoption of the Merger Agreement; and

Proposal No. 2. To consider and vote upon an adjournment of the Avigen special meeting, if necessary, if a quorum is present, to solicit additional proxies if there are not sufficient votes in favor of Proposal No. 1.

The Avigen special meeting will also address such other business as may properly come before the Avigen special meeting or any adjournment or postponement thereof.

The record date for the determination of stockholders entitled to notice of, and to vote at, the Avigen special meeting and any adjournment or postponement thereof is October 30, 2009. Only stockholders of record at the close of business on that date are entitled to notice of, and to vote at, the Avigen special meeting. At the close of business on the record date, Avigen had outstanding and entitled to vote 29,836,365 shares of common stock.

Your vote is important. The affirmative vote of the holders of a majority of the outstanding shares of Avigen common stock on the record date for the Avigen special meeting is required for approval of Proposal No. 1 above. The affirmative vote of the holders of a majority of the votes cast in person or by proxy at the Avigen special meeting is required to approve Proposal No. 2 above. THE APPROVAL OF PROPOSAL NO. 1 IS A CONDITION TO THE COMPLETION OF THE MERGER. Even if you plan to attend the Avigen special meeting in person, we request that you sign and return the enclosed proxy card or vote by telephone or by using the Internet as instructed on the enclosed proxy card and thus ensure that your shares will be represented at the Avigen special meeting if you are unable to attend. If you sign, date and mail your proxy card without indicating how you wish to vote, your proxy will be counted as a vote in favor of each of Proposal Nos. 1 and 2 above. If you fail to return your proxy card or vote by telephone or by using the Internet, your shares will not be counted for purposes of determining whether a quorum is present at the Avigen special meeting, and the effect will be a vote against the adoption of the Merger Agreement. If you do attend the Avigen special meeting and wish to vote in person, you may withdraw your proxy and vote in person.

Please do not send any certificates representing your Avigen common stock at this time.

The accompanying joint proxy statement/prospectus describes the Merger and the actions to be taken at the special meeting and provides additional information about the parties involved. Please give this information your careful attention.

Table of Contents

It is important that your shares are represented at the special meeting. Even if you plan to attend the meeting in person, we hope that you will either complete and mail the enclosed proxy card or use the telephone or Internet voting procedures described on your proxy card as soon as possible. This will not limit your right to attend or vote at the meeting.

By Order of the Board of Directors

Sincerely,

ANDREW SAUTER

President and Chief Executive Officer

Alameda, California

November 18, 2009

THE AVIGEN BOARD OF DIRECTORS HAS DETERMINED THAT THE MERGER AGREEMENT AND THE MERGER ARE ADVISABLE, FAIR TO AND IN THE BEST INTERESTS OF AVIGEN AND ITS STOCKHOLDERS, AND RECOMMENDS THAT AVIGEN STOCKHOLDERS VOTE FOR PROPOSAL NO. 1 TO ADOPT THE MERGER AGREEMENT. THE AVIGEN BOARD OF DIRECTORS ALSO RECOMMENDS THAT AVIGEN STOCKHOLDERS VOTE FOR PROPOSAL NO. 2 TO ADJOURN THE SPECIAL MEETING, IF NECESSARY, IF A QUORUM IS PRESENT, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF ADOPTION OF THE MERGER AGREEMENT.

Table of Contents

ADDITIONAL INFORMATION

This joint proxy statement/prospectus incorporates important business and financial information about MediciNova, Inc. and Avigen, Inc. from documents filed with the Securities and Exchange Commission, or the SEC, that are not included in or delivered with this joint proxy statement/prospectus.

MediciNova will provide you with copies of this information relating to it, without charge, upon written or oral request to:

MediciNova, Inc.

4350 La Jolla Village Drive, Suite 950

San Diego, CA 92122

Tel: (858) 373-1500

Avigen will provide you with copies of this information relating to it, without charge, upon written or oral request to:

Avigen, Inc.

1301 Harbor Bay Parkway

Alameda, California 94502

Tel: (510) 748-7150

In order to receive timely delivery of the documents in advance of your stockholder meeting, you must request this information no later than December 8, 2009.

You may also obtain these documents at the SEC s website, *www.sec.gov*, and you may obtain certain of these documents at MediciNova s website, *www.medicinova.com*, by going to the Investor Relations section and at Avigen s website, *www.avigen.com*, by going to the Investors section.

You should rely only on the information contained in this joint proxy statement/prospectus to vote on the matters set forth herein. No one has been authorized to provide you with information that is different from that contained in this joint proxy statement/prospectus. This joint proxy statement/prospectus is dated November 18, 2009. You should not assume that the information contained in this joint proxy statement/prospectus is accurate as of any date other than that date. Neither the mailing of this joint proxy statement/prospectus to MediciNova stockholders or Avigen stockholders nor the issuance by MediciNova of Convertible Notes in connection with the Merger will create any implication to the contrary.

This joint proxy statement/prospectus does not constitute an offer to sell, or a solicitation of an offer to buy, any securities, or the solicitation of a proxy, in any jurisdiction to or from any person to whom it is unlawful to make any such offer or solicitation in such jurisdiction. Information contained in this joint proxy statement/prospectus regarding MediciNova has been provided by MediciNova, and information contained in this joint proxy statement/prospectus regarding Avigen has been provided by Avigen.

Table of Contents

TABLE OF CONTENTS

	Page
QUESTIONS AND ANSWERS ABOUT THE MERGER	1
SUMMARY	6
SELECTED HISTORICAL AND UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL DATA	17
RISK FACTORS	22
FORWARD-LOOKING STATEMENTS	63
THE SPECIAL MEETING OF MEDICINOVA STOCKHOLDERS	64
THE SPECIAL MEETING OF AVIGEN STOCKHOLDERS	67
THE MERGER	70
CERTAIN TERMS OF THE MERGER AGREEMENT AND THE CPR AGREEMENT	101
MEDICINOVA S BUSINESS	120
AVIGEN S BUSINESS	149
MEDICINOVA S MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATION	157
MEDICINOVA S QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK	172
AVIGEN S MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATION	173
AVIGEN S QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK	189
MEDICINOVA MANAGEMENT	190
CORPORATE GOVERNANCE	195
COMPENSATION DISCUSSION AND ANALYSIS	196
CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS	207
MEDICINOVA SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT	208
AVIGEN SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT	210
MARKET PRICES AND DIVIDENDS ON COMMON STOCK AND RELATED STOCKHOLDER MATTERS	212
MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES OF THE MERGER	215
UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL STATEMENTS	221
DESCRIPTION OF COMMON STOCK	230
DESCRIPTION OF CONVERTIBLE NOTES	233
COMPARISON OF STOCKHOLDER RIGHTS AND CORPORATE GOVERNANCE MATTERS	240
LEGAL MATTERS	245
EXPERTS	245
WHERE YOU CAN FIND MORE INFORMATION	245
INDEX TO MEDICINOVA S CONSOLIDATED FINANCIAL STATEMENTS	FI-1
INDEX TO AVIGEN S FINANCIAL STATEMENTS	FI-40
ANNEX A - AGREEMENT AND PLAN OF MERGER	A-1
ANNEX B - CONTINGENT PAYMENT RIGHTS AGREEMENT	B-1
ANNEX C - INDENTURE	C-1
ANNEX D - TRUST AGREEMENT	D-1
ANNEX E - ESCROW AGREEMENT	E-1
ANNEX F - FORM OF OPINION OF LADENBURG THALMANN & CO. INC	F-1
ANNEX G - FORM OF OPINION OF RBC CAPITAL MARKETS CORPORATION	G-1
ANNEX H - COPY OF SECTION 262 OF THE DELAWARE GENERAL CORPORATION LAW	H-1

Table of Contents

QUESTIONS AND ANSWERS ABOUT THE MERGER

The following are some questions that you, as a stockholder of MediciNova or Avigen, may have regarding the Merger, and the answers to those questions. You are urged to read carefully this joint proxy statement/prospectus and the other documents referred to in this joint proxy statement/prospectus in their entirety because the information in this section does not provide all of the information that might be important to you with respect to the Merger and the other matters being considered at the special meetings. Additional important information is contained in the annexes to this joint proxy statement/prospectus.

Q: Why am I receiving this joint proxy statement/prospectus?

A: You are receiving this joint proxy statement/prospectus because you were a stockholder of record of MediciNova or Avigen as of the close of business on October 30, 2009, the record date for the MediciNova special meeting, or October 30, 2009, the record date for the Avigen special meeting. MediciNova and Avigen are sending this joint proxy statement/prospectus and the form of proxy card to solicit your proxy to vote upon certain matters at their respective special meetings.

Q: What is the Merger?

A: MediciNova and Avigen have agreed to the Merger, pursuant to which Avigen will become a wholly-owned subsidiary of MediciNova. Under the terms of the Merger Agreement, which has been approved by both companies boards of directors, Avigen stockholders will have the right to elect to receive an amount currently estimated at approximately $1.24 per share in either cash or Convertible Notes to be issued by MediciNova. Approximately $1.19 of this consideration will be paid at the closing, and approximately $0.05 will be paid at June 30, 2010. As set forth in the Merger Agreement and described herein, both payments are subject to certain potential adjustments. See Certain Terms of the Merger Agreement Merger Agreement First Payment Consideration and Certain Terms of the Merger Agreement Merger Agreement Second Payment Consideration. In addition, Avigen s stockholders will be entitled to one CPR for each share of Avigen common stock, which will entitle holders under certain circumstances to the payments described under Certain Terms of the Merger Agreement and the CPR Agreement Contingent Payment Rights CPR Payments.

Q: What matters will be considered at the special meetings?

A: At the MediciNova special meeting, MediciNova stockholders will be asked to vote to adopt the Merger Agreement and approve the issuance of the Convertible Notes. At the Avigen special meeting, Avigen stockholders will be asked to vote to adopt the Merger Agreement.

Q: What are the recommendations of the boards of directors of MediciNova and Avigen?

A: MediciNova s board of directors recommends that you vote **FOR** the adoption of the Merger Agreement and approval of the issuance of the Convertible Notes. Avigen s board of directors recommends that you vote **FOR** the adoption of the Merger Agreement.

Q: Why is this a joint proxy statement/proxy?

A: MediciNova and Avigen are delivering this joint proxy statement/prospectus to you as both a proxy statement of MediciNova and Avigen and a prospectus of MediciNova. It is a proxy statement of MediciNova because MediciNova s board of directors is soliciting proxies from MediciNova stockholders to vote on the adoption of the Merger Agreement and issuance of the Convertible Notes, and such proxies will

be used at the meeting or at any adjournment or postponement thereof. It is a proxy statement of Avigen because Avigen s board of directors is soliciting proxies from Avigen stockholders to vote on the adoption

Table of Contents

of the Merger Agreement, and such proxies will be used at the meeting or at any adjournment or postponement thereof. It is a prospectus of MediciNova because MediciNova is offering Convertible Notes to certain Avigen stockholders as part of the Merger.

Q: What is a proxy, and who is paying the costs to prepare this joint proxy statement/prospectus and solicit my proxy?

A: A proxy is your legal designation of another person to vote your shares of common stock. The document that designates someone as your proxy is also called a proxy or a proxy card.

MediciNova will pay all expenses of this solicitation as it pertains to MediciNova stockholders, including the cost of preparing and mailing this joint proxy statement/prospectus and the form of proxy card, and Avigen will pay all expenses of this solicitation as it pertains to Avigen stockholders, including the cost of preparing and mailing this joint proxy statement/prospectus and the form of proxy card.

Q: When do MediciNova and Avigen need to receive my proxy in order for my vote to count?

A: MediciNova and Avigen must receive your proxy the business day before their respective special meetings in order for your proxy to be voted at the applicable special meeting.

Q: What approval of each of MediciNova s and Avigen s stockholders is required to consummate the Merger?

A: The Merger Agreement must be adopted by the holders of a majority of the outstanding shares of MediciNova common stock and a majority of the outstanding shares of Avigen common stock. Failure to vote or abstention from voting will have the same effect as a vote **AGAINST** the matters submitted for consideration at the special meetings.

Q: How will abstentions be counted?

A: Abstentions are counted as present and entitled to vote for purposes of determining a quorum. Abstentions have the same effect as a vote **AGAINST** adoption of the Merger Agreement and the issuance of the Convertible Notes.

Q: What do I need to do now in order to vote?

A: After you have read this joint proxy statement/prospectus carefully, please respond as soon as possible so that your shares will be represented and voted at the appropriate special meeting by completing, signing and dating your proxy card or voting instruction card and returning it in the postage-paid envelope or voting by telephone or Internet as instructed on the proxy card or voting instruction card.

Q: How do I vote my shares if my shares are held in street name by my broker?

A: You should contact your broker or bank who holds your shares in street name. Your broker or bank can give you directions on how to instruct such broker or bank to vote your shares. Your broker or bank will not vote your shares unless the broker or bank receives appropriate instructions from you. Thus, if you do not give your broker or nominee specific instructions on how to vote for you or do not vote for yourself in accordance with the voting instructions on the proxy card being forwarded to you, your shares will be treated as present for the purposes of a quorum but will have the effect of a vote **AGAINST** such proposal. You should provide your broker or bank

with instructions as to how to vote your shares. You cannot vote shares held in street name by returning a proxy card to MediciNova or Avigen. In addition, if you are an Avigen stockholder, when you receive a form of election, you should follow your broker s or bank s instructions for making an election with respect to your shares of Avigen common stock.

Table of Contents

Q: When and where are the stockholder meetings and who may attend?

A: The MediciNova special meeting will take place at 3:00 p.m. Pacific Standard Time on December 17, 2009. The location of the MediciNova special meeting is the Northern Trust Tower, 4370 La Jolla Village Drive, Suite 210, San Diego, California 92122. Only MediciNova stockholders, their proxy holders and MediciNova s invited guests may attend the meeting.

The Avigen special meeting will take place at 3:00 p.m. Pacific Standard Time on December 17, 2009. The location of the Avigen special meeting is 1301 Harbor Bay Parkway, Alameda, California 94502. Only Avigen stockholders, their proxy holders and Avigen s invited guests may attend the meeting.

Q: Who is entitled to vote at the special meetings?

A: Only holders of shares of MediciNova common stock as of the record date for the MediciNova special meeting, which is October 30, 2009, are entitled to vote at the MediciNova special meeting, and only holders of shares of Avigen common stock as of the record date for the Avigen special meeting, which is October 30, 2009, are entitled to vote at the Avigen special meeting.

Q: How many votes do I have, and can I cumulate my vote?

A: You have one vote at the MediciNova special meeting for each share of MediciNova common stock that you held as of the record date for the MediciNova special meeting and one vote at the Avigen special meeting for each share of Avigen common stock that you held as of the record date for the Avigen special meeting. Cumulative voting is not allowed. As of the record date for the MediciNova special meeting, there were 12,103,969 shares of MediciNova common stock outstanding, and, as of the record date for the Avigen special meeting, there were 29,836,365 shares of Avigen common stock outstanding.

Q: What constitutes a quorum for the special meetings?

A: A majority of the outstanding shares having voting power being present in person or represented by proxy constitutes a quorum for each of the special meetings.

Q: Who will constitute the management and board of directors of the combined company?

A: The management and board of directors of the combined company will consist of the management and board of directors of MediciNova immediately prior to the Merger. The board of directors of the combined company is expected to be comprised of the following seven individuals: Jeff Himawan, Ph.D.; Alan W. Dunton, M.D.; Yuichi Iwaki, M.D., Ph.D.; Arlene Morris; Hideki Nagao; John K.A. Prendergast, Ph.D. and Hiroaki Shigeta. The senior management team of the combined company is expected to be comprised of: Yuichi Iwaki, M.D., Ph.D.; Shintaro Asako, CPA; and Masatsune Okajima.

Q: Are there risks associated with the Merger that I should consider in deciding how to vote?

A: Yes. There are a number of risks related to the Merger, the Convertible Notes, MediciNova and Avigen that are discussed in this joint proxy statement/prospectus. Please read with particular care the detailed description of the risks associated with the Merger beginning on page 22.

Q: When do you currently expect to complete the Merger?

A: MediciNova and Avigen currently expect to complete the Merger in the fourth quarter of 2009. However, MediciNova and Avigen cannot assure you when or if the Merger will occur. The companies must obtain the approval of MediciNova stockholders and Avigen stockholders at the special meetings and satisfy the closing conditions set forth in the Merger Agreement before the Merger can be completed.

Table of Contents

Q: If I am an Avigen stockholder, when must I elect the type of merger consideration that I prefer to receive?

A: Avigen stockholders who wish to elect the type of merger consideration they prefer to receive in the Merger should carefully review and follow the instructions set forth in the form of election that will be provided to Avigen stockholders together with this joint proxy statement/prospectus. The election deadline is 5:00 p.m. New York City time on the date of the Avigen special meeting. If an Avigen stockholder does not submit a properly completed and signed form of election to the exchange agent by the election deadline, such stockholder will receive 50 percent of the merger consideration in cash and 50 percent in Convertible Notes.

Q: If I am an Avigen stockholder, should I send in my Avigen stock certificates now?

A: No. After completion of the Merger, MediciNova will send you instructions for exchanging your Avigen stock certificates for the merger consideration.

Q: Are Avigen stockholders entitled to seek appraisal rights if they do not vote in favor of the adoption of the Merger Agreement?

A: Yes. Under Delaware law, record holders of Avigen common stock who do not vote in favor of the adoption of the Merger Agreement will be entitled to seek appraisal rights in connection with the Merger, and if the Merger is completed, obtain payment in cash of the fair value of their shares of Avigen common stock as determined by the Delaware Chancery Court, instead of the merger consideration. To exercise your appraisal rights, you must strictly follow the procedures prescribed by Delaware law and included as Annex H hereto. Failure to strictly comply with these provisions will result in a loss of the right of appraisal.

Q: What if I want to change my vote after I have delivered my proxy card or voted by telephone or Internet?

A: You may change your vote at any time before your proxy is voted at the applicable special meeting. If you are the record holder of your shares, you can do this in any of the three following ways:

- by sending a written revocation to the secretary of MediciNova or Avigen, as appropriate, in time to be received before the appropriate special meeting stating that you would like to revoke your proxy;
- by properly completing another proxy card that is dated later than the original proxy and returning it in time to be received before the appropriate special meeting;
- by providing proxy instructions via telephone or the Internet at a later date (a stockholder s latest telephone or Internet proxy is counted); or
- by voting in person at the appropriate special meeting if your shares of MediciNova common stock or Avigen common stock are registered in your name rather than in the name of a broker or bank.

If your shares are held in street name, you should contact your broker or bank to give it instructions to change your vote.

Will my vote be confidential?

Yes. MediciNova and Avigen will continue their practice of keeping the votes of all stockholders confidential. Stockholder votes will not be disclosed to MediciNova s or Avigen s directors, officers, employees or agents, except:

as necessary to meet applicable legal requirements;

in a dispute regarding authenticity of proxies and ballots;

Table of Contents

in the case of a contested proxy solicitation, if the other party soliciting proxies does not agree to comply with the confidential voting policy; or

when a stockholder makes a written comment on the proxy card or otherwise communicates the vote to management.

Q: Where is MediciNova s common stock traded?

A: MediciNova s common stock is traded and quoted on Nasdaq under the symbol MNOV and on the Hercules Market of the OSE under the code 4875.

Q: Where is Avigen s common stock traded?

A: Avigen s common stock is traded and quoted on Nasdaq under the symbol AVGN.

Q: Who can I call with questions about the special meetings or the Merger?

A. If you are a MediciNova stockholder and you have questions about the Merger or the MediciNova special meeting or you need additional copies of this joint proxy statement/prospectus, or if you have questions about the process for voting or if you need a replacement proxy card, you should contact:

Advantage Proxy
24925 13th Place South
Des Moines, Washington 98198
(206) 870-8565

If you are an Avigen stockholder and you have questions about the Merger or the Avigen special meeting or you need additional copies of this joint proxy statement/prospectus, or if you have questions about the process for voting or if you need a replacement proxy card, you should contact:

Investor Relations
Avigen, Inc.
1301 Harbor Bay Parkway
Alameda, California 94502
(510) 748-7150

Q: Where can I find more information about the companies?

A: You can find more information about MediciNova and Avigen in this joint proxy statement/prospectus and from the various sources described under Where You Can Find More Information.

Table of Contents

SUMMARY

This summary highlights the material terms of the Merger and other material information contained or incorporated by reference in this joint proxy statement/prospectus. You should read carefully this entire joint proxy statement/prospectus and the documents referred to in this joint proxy statement/prospectus for a more complete description of the terms of the Merger and related agreements. The Merger Agreement is attached as Annex A and the forms of CPR Agreement and Indenture are attached as Annexes B and C, respectively, to this joint proxy statement/prospectus. You are encouraged to read the Merger Agreement as it is the legal document that governs the Merger, as well as these additional documents attached as Annexes hereto. In this joint proxy statement/prospectus, unless the context otherwise requires, MediciNova refers to MediciNova, Inc. and its subsidiaries, Avigen refers to Avigen, Inc. and Absolute Merger refers to Absolute Merger, Inc., a wholly-owned subsidiary of MediciNova.

The Companies

MediciNova, Inc.

MediciNova is a biopharmaceutical company focused on acquiring and developing novel, small molecule therapeutics for the treatment of diseases with unmet medical need with a specific focus on the U.S. market. Through strategic alliances, primarily with Japanese pharmaceutical companies, MediciNova holds rights to a diversified portfolio of clinical and preclinical product candidates, each of which MediciNova believes has a well-characterized and differentiated therapeutic profile, attractive commercial potential and patent assets having claims of commercially adequate scope.

MediciNova was incorporated under the laws of the State of Delaware in September 2000. MediciNova s principal executive offices are located at 4350 La Jolla Village Drive, Suite 950, San Diego, California 92122. MediciNova s telephone number is (858) 373-1500.

Absolute Merger, Inc.

Absolute Merger is a Delaware corporation and a wholly-owned subsidiary of MediciNova incorporated on August 17, 2009. Absolute Merger does not engage in any operations and exists solely to facilitate the Merger. Absolute Merger s principal executive offices are located at 4350 La Jolla Village Drive, Suite 950, San Diego, California 92122. Absolute Merger s telephone number is (858) 373-1500.

Avigen, Inc.

Avigen is a biopharmaceutical company that has focused on identifying and developing differentiated products to treat patients with serious disorders. Avigen s strategy was to conceive or acquire and develop opportunities that represent a positive return to Avigen stockholders. The company s current potential product is AV411, a glial attenuator, for neuropathic pain and opioid withdrawal and methamphetamine addiction.

Avigen was incorporated under the laws of the State of Delaware in October 1992. Avigen s principal executive offices are located at 1301 Harbor Bay Parkway, Alameda, California 94502. Avigen s telephone number is (510) 748-7150.

Ibudilast

Ibudilast is an orally available, small molecule therapeutic that has been in clinical development by MediciNova for the treatment of multiple sclerosis, or MS (MN-166), and by Avigen for the treatment of neuropathic pain and opiod withdrawal and drug addiction (AV411). Following completion of the Merger, MediciNova intends to integrate the two ibudilast-based product development programs and pursue discussions with potential partners to secure a strategic collaboration to advance the clinical development of the combined development programs.

Table of Contents

Special Meeting of MediciNova Stockholders

Date, Time and Place. The special meeting of MediciNova stockholders will be held on December 17, 2009, at 3:00 p.m. Pacific Standard Time at Northern Trust Tower, 4370 La Jolla Village Drive, Suite 210, San Diego, California 92122. At the special meeting, MediciNova stockholders will be asked to consider the proposal to adopt the Merger Agreement and approve the issuance of the Convertible Notes and the adjournment and postponement of the special meeting to a later date or time, if necessary or appropriate, to solicit additional proxies in the event there are insufficient votes at the time of the special meeting to adopt the Merger Agreement and approve the issuance of the Convertible Notes. The MediciNova special meeting also will address such other business as may properly come before the MediciNova special meeting or any adjournment or postponement thereof.

Record Date. Only MediciNova stockholders of record at the close of business on October 30, 2009 will be entitled to vote at the special meeting. Each share of MediciNova common stock is entitled to one vote. As of the record date, there were 12,103,969 shares of MediciNova common stock outstanding and entitled to vote at the special meeting.

Vote Required for Approval. To adopt the Merger Agreement and approve the issuance of the Convertible Notes, the holders of a majority of the outstanding shares of MediciNova common stock entitled to vote must vote in favor of the adoption of the Merger Agreement and approve the issuance of the Convertible Notes. Because adoption of the Merger Agreement and approval of the issuance of the Convertible Notes requires the affirmative vote of a majority of shares outstanding, a MediciNova stockholder s failure to vote or abstention from voting will have the same effect as a vote against approval of the issuance of the Convertible Notes.

To approve the proposal to adjourn or postpone the special meeting, if necessary or appropriate, a majority of the shares of MediciNova common stock present in person or represented by proxy at the special meeting and entitled to vote must vote in favor of such proposal. A MediciNova stockholder s failure to vote or abstention from voting will have no effect on the proposal for possible adjournment or postponement of the special meeting.

Share Ownership by Management. As of the record date, the directors and executive officers of MediciNova beneficially owned in the aggregate approximately 15.3 percent of the outstanding shares of MediciNova common stock entitled to vote at the special meeting.

Recommendation to MediciNova s Stockholders

MediciNova s board of directors has approved and adopted the Merger Agreement and approved the issuance of the Convertible Notes. The board of directors of MediciNova recommends that MediciNova stockholders vote **FOR** adoption of the Merger Agreement and the issuance of the Convertible Notes and **FOR** the approval of the proposal to adjourn or postpone the special meeting, if necessary or appropriate, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the Merger Agreement and approval of the issuance of the Convertible Notes at the time of the special meeting.

Special Meeting of Avigen Stockholders

Date, Time and Place. The special meeting of Avigen stockholders will be held on December 17, 2009, at 3:00 p.m. Pacific Standard Time at 1301 Harbor Bay Parkway, Alameda, California 94502. At the special meeting, Avigen stockholders will be asked to consider the proposal to adopt the Merger Agreement and the adjournment and postponement of the special meeting to a later date or time, if necessary or appropriate, to solicit additional proxies in the event there are insufficient votes at the time of the special meeting to adopt the Merger Agreement. The Avigen special meeting also will address such other business as may properly come before the Avigen special meeting or any adjournment or postponement thereof.

Table of Contents

Record Date. Only Avigen stockholders of record at the close of business on October 30, 2009 will be entitled to vote at the special meeting. Each share of Avigen common stock is entitled to one vote. As of the record date, there were 29,836,365 shares of Avigen common stock outstanding and entitled to vote at the special meeting.

Vote Required for Approval. To adopt the Merger Agreement, the holders of a majority of the outstanding shares of Avigen common stock entitled to vote must vote in favor of the adoption of the Merger Agreement. Because adoption of the Merger Agreement requires the affirmative vote of a majority of shares outstanding, an Avigen stockholder s failure to vote or abstention from voting will have the same effect as a vote against adoption of the Merger Agreement.

To approve the proposal to adjourn or postpone the special meeting, if necessary or appropriate, a majority of the shares of Avigen common stock present in person or represented by proxy at the special meeting and entitled to vote must vote in favor of such proposal. An Avigen stockholder s failure to vote or abstention from voting will have no effect on the proposal for possible adjournment or postponement of the special meeting.

Share Ownership by Management. As of the record date, the directors and executive officers of Avigen beneficially owned in the aggregate less than one percent of the outstanding shares of Avigen common stock entitled to vote at the special meeting.

Recommendation to Avigen s Stockholders

Avigen s board of directors has approved and adopted the Merger Agreement and approved the Merger. The board of directors of Avigen recommends that Avigen s stockholders vote **FOR** the adoption of the Merger Agreement and **FOR** the approval of the proposal to adjourn or postpone the special meeting, if necessary or appropriate, to solicit additional proxies if there are not sufficient votes in favor of the adoption of the Merger Agreement.

The Merger

At the effective time of the Merger, MediciNova s wholly-owned subsidiary, Absolute Merger, will be merged with and into Avigen, with Avigen continuing as the surviving corporation. Upon completion of the Merger, the directors and officers of Absolute Merger immediately prior to the Merger will become the directors and officers of the surviving corporation.

Under the terms of the Merger Agreement, at the effective time of the Merger, each share of Avigen common stock (and the associated preferred stock purchase right) will be cancelled and extinguished and automatically converted into the right to receive:

one of the following:

for each share of Avigen common stock with respect to which an election to receive cash has been made, the right to receive cash equal to the First Payment Consideration and Second Payment Consideration, if any;

for each share of Avigen common stock for which an election to receive Convertible Notes has been made, the right to receive one Convertible Note with a face value equal to the First Payment Consideration and Second Payment Consideration, if any;

for each share of Avigen common stock with respect to which no valid election has been made, the right to receive cash equal to 50 percent of the First Payment Consideration and Second Payment Consideration, if any, and Convertible Notes with a face value equal to 50 percent of the First Payment Consideration and Second Payment Consideration, if any; and

Table of Contents

one CPR granting the holder thereof the rights described under the section entitled Contingent Payment Rights below.
As used in this joint proxy statement/prospectus, the term Merger Consideration refers to either (1) the combination of Convertible Notes and one CPR, (2) the combination of cash and one CPR or (3) the combination of cash and Convertible Notes and one CPR.

All of the unexercised and outstanding stock options under Avigen s existing equity compensation plans will be cancelled at or prior to the effective time of the Merger and holders will cease to have any rights with respect to such options.

Effective as of immediately prior to the effective time of the Merger, the existing warrant issued by Avigen to University License Equity Holdings, Inc., an affiliate of the University of Colorado, to acquire 15,000 shares of Avigen common stock will be converted into a new warrant entitling its holder to receive, in lieu of the shares of Avigen common stock theretofore issuable upon exercise or conversion of the existing warrant, the Merger Consideration that would have been receivable upon the Merger by the holder of the existing warrant if it had been exercised, and a cash election had been made, immediately prior to the effective time of the Merger.

First Payment Consideration

The First Payment Consideration is equal to $35,461,000 divided by the number of shares of Avigen s common stock outstanding immediately prior to the effective time of the Merger. This aggregate First Payment Consideration is subject to downward adjustment (on a dollar for dollar basis) in the event that the aggregate cash liquidation proceeds of the marketable securities and restricted investments held by Avigen as of June 30, 2009 are less than $27,721,000. In the event that, prior to the effective time of the Merger, Avigen sells or otherwise disposes of its rights to the first milestone payment under its assignment agreement with Genzyme Corporation, or the Genzyme Agreement, the aggregate First Payment Consideration will be increased by the amount received by Avigen pursuant to such transaction. In addition, in the event that, prior to the effective time of the Merger, Avigen sells or otherwise disposes of all of its rights under the Genzyme Agreement, the aggregate First Payment Consideration will be increased by the amount received by Avigen pursuant to such transaction less 50 percent of all amounts in excess of $6,000,000.

Second Payment Consideration

The Second Payment Consideration is equal to $1,500,000 divided by the number of shares of Avigen s common stock outstanding immediately prior to the effective time of the Merger, or approximately $0.05 per share of Avigen common stock, subject to certain adjustments described more fully below. The aggregate Second Payment Consideration is subject to upward adjustment based on savings in estimated expenses through closing and receipt of certain payments post-closing as well as downward adjustment in the event that actual closing liabilities exceed estimated liabilities through closing. For example, to the extent salaries paid by Avigen from June 30, 2009 to Closing exceed $298,530, the aggregate Second Payment Consideration would be reduced by such excess. The Second Payment Consideration will be equal to the amount remaining in the escrow account described herein following satisfaction of the demand amount, as adjusted by the selected amount divided by the number of shares of Avigen s common stock outstanding immediately prior to the effective time of the Merger.

Under the terms of an escrow agreement to be entered into at the time of completion of the Merger (which is included as Annex E hereto), Avigen will deposit in an escrow account $1,500,000, or approximately $0.05 per share of Avigen common stock, plus the amount by which the aggregate cash liquidation proceeds of its marketable securities and restricted investments held as of June 30, 2009 exceed $28,021,000. After closing, MediciNova also will deposit into the escrow account certain payments, including royalties pursuant to an agreement between Avigen and Advanced Cell Technology, Inc., if any, received during the escrow period and

Table of Contents

excess cash amounts collected from subtenants at Avigen s current headquarters, to the extent such payments exceed specified amounts agreed upon by the parties.

On or prior to June 30, 2010, MediciNova will be entitled to submit one demand certificate to claim all or a portion of the funds in the escrow account, or the demand amount, with respect to certain additional liabilities of Avigen related to its business activities and operations prior to the effective time of the Merger, including any amounts paid to current or former directors and officers of Avigen in connection with releases delivered by such individuals under the Merger Agreement, liabilities in excess of specified amounts agreed upon by the parties and the expenses of the representative of the Avigen stockholders incurred in connection with the Merger Agreement and the Contingent Payment Rights Agreement, or the CPR Agreement. Upon delivery of MediciNova s demand certificate, amounts in the escrow account that are not being demanded in satisfaction of additional liabilities will be released to Avigen s former stockholders on a pro rata basis. A stockholder representative will be entitled to dispute the demand amount, and an independent accounting firm will resolve any unresolved dispute between MediciNova and the stockholder representative with respect to the demand amount. Prior to resolution of any dispute regarding the demand amount, all amounts set forth in the demand certificate that are not being contested by the stockholder representative will be released to MediciNova.

Following resolution of the dispute regarding the demand amount, which requires the independent accounting firm to select either the amount demanded by MediciNova or the amount of such demand as adjusted by the amounts contested by the stockholder representative as the numerical amount it believes is the accurate amount of additional liabilities, or the selected amount, MediciNova will receive an amount reflecting any adjustments resulting from the selected amount. Any remaining amounts in the escrow account then will be released to Avigen s former stockholders on a pro rata basis.

Contingent Payment Rights

Immediately prior to the closing of the Merger, MediciNova, Avigen and American Stock Transfer & Trust Company, LLC, as rights agent, will enter into the CPR Agreement. MediciNova will issue Avigen stockholders one CPR for each share of Avigen common stock held immediately prior to the effective time of the Merger.

The CPR Agreement provides for the payment of the following amounts, each a CPR payment event, on a pro rata basis:

- if the first milestone payment under Avigen s agreement with Genzyme Corporation, or the Genzyme Agreement, is received within 20 months of effective time of the Merger, $6,000,000 or such lesser cash amount paid by Genzyme;

- if the first milestone payment has not occurred and the Parkinson s Product, as defined in the Genzyme Agreement, is sold or otherwise disposed of by MediciNova within 20 months of the effective time of the Merger, 50 percent of the net proceeds of such sale or disposition received within such 20-month period; and

- if the trust established pursuant to Avigen s management transition plan is terminated, the amount remaining in such trust upon termination (less any payments required to be made under Avigen s management transition plan trust agreement), such amount currently estimated at $550,000.

All payments will be made on a pro rata basis. In each case, the payments will be net of any related taxes and out-of-pocket costs, damages, fines, penalties and expenses incurred by MediciNova. For a description of the events that trigger Genzyme s election to either pay the milestone or revert the rights to the Parkinson s disease product candidate, see Certain Terms of the Merger Agreement and the CPR Agreement Genzyme Agreement beginning on page 118 of this joint proxy statement/prospectus.

Table of Contents

Convertible Notes

At the completion of the Merger, MediciNova and American Stock Transfer & Trust Company, LLC, trustee, will enter into the Indenture. Under the terms of a trust agreement by and between MediciNova, American Stock Transfer & Trust Company, LLC, as trust agent and securities intermediary, and American Stock Transfer & Trust Company, LLC, acting in the capacity of property agent for the benefit of the Noteholders, MediciNova will grant a security interest in or pledge certain assets as security for the full and final payment and performance of its obligations under the Convertible Notes. These assets include the initial principal amount of the Convertible Notes to be deposited into a segregated trust account at the completion of the Merger, the additional principal amount of the Convertible Notes to be deposited into such trust account on June 30, 2010 as part of the Second Payment Consideration, if any, all rights of MediciNova against the trust agent or any clearing broker for the trust agent in connection with the trust account, all securities, stocks, bonds, mutual fund shares, U.S. Treasury instruments and other investment property and financial assets now or hereafter reflected as maintained in the trust account, together with any and all proceeds, replacements or substitutions therefor, and all proceeds of every kind or nature, and in whatever form (including both cash and non-cash) received now or in the future upon the sale or other disposition of any of the foregoing, collectively the property. Provided no event of default has occurred and is continuing, MediciNova will be able to direct the investment and reinvestment of the property in certain approved investment options, including certain money market funds. At the maturity of the Convertible Notes on the 18-month anniversary of the closing of the Merger, MediciNova will use the property to pay the principal amount of, and accrued interest on, the Convertible Notes.

The Convertible Notes are the secured obligation of MediciNova, and the Indenture does not limit other indebtedness of MediciNova, secured or unsecured. The Indenture contains limited covenants, including a requirement that MediciNova deliver to holders of the Convertible Notes quarterly statements setting forth the principal amount of the Convertible Notes at the close of the fiscal quarter as well as information regarding the amount of interest capitalized to such Convertible Notes during the fiscal quarter.

Holders of the Convertible Notes may submit conversion notices, which are irrevocable, instructing the trustee to convert such Convertible Notes into shares of MediciNova common stock at an initial conversion price of $6.80 per share. Following each conversion date, which date generally is the final business day of each calendar month, MediciNova will issue the number of whole shares of common stock issuable upon conversion as promptly as practicable (and in any event within ten business days). Any fractional shares (after aggregating all Convertible Notes being converted by a holder on such date) will be rounded down and MediciNova will deliver cash for the current market value of the fractional share. The Indenture will include customary anti-dilution adjustments and events of default. See Description of Convertible Notes beginning on page 233 of this joint proxy statement/prospectus.

MediciNova s Reasons for the Merger

In reaching its decision to approve the Merger Agreement and issuance of the Convertible Notes and recommend that its stockholders adopt the Merger Agreement and approve the issuance of the Convertible Notes, MediciNova s board of directors consulted with MediciNova s management, as well as its financial and legal advisors, and considered a number of factors. These factors include (i) the combined ibudilast clinical development programs of the two companies, (ii) preclinical and clinical data for AV411 are expected to be used as support for a development pathway for MN-166, resulting in significant cost savings and (iii) the potential financing opportunity presented by the transaction. See The Merger MediciNova s Reasons for the Merger; Recommendation of MediciNova s Board of Directors beginning on page 80 of this joint proxy statement/prospectus.

Table of Contents

Opinion of MediciNova s Financial Advisor

On August 20, 2009, Ladenburg Thalmann & Co. Inc., or Ladenburg, delivered its written opinion to MediciNova s board of directors. The opinion stated that, as of August 20, 2009, based upon and subject to the assumptions made, matters considered, procedures followed and limitations on Ladenburg s review as set forth in the opinion, the Net Merger Consideration (as defined hereinafter) to be paid by MediciNova is fair to MediciNova s stockholders. The full text of Ladenburg s written opinion dated as of August 20, 2009, which sets forth the assumptions made, matters considered, procedures followed, and limitations on the review undertaken by Ladenburg in rendering its opinion, is attached as Annex F to this joint proxy statement/prospectus and is incorporated herein by reference. Ladenburg s opinion is not intended to be, and does not constitute, a recommendation to you as to how you should vote or act with respect to the Merger or any other matter relating thereto. See The Merger Opinion of Ladenburg Thalmann & Co. Inc. Financial Advisor to MediciNova beginning on page 86 of this joint proxy statement/prospectus.

Avigen s Reasons for the Merger

In reaching its decision to approve the Merger Agreement and recommend that its stockholders adopt the Merger Agreement, Avigen s board of directors consulted with Avigen s management, as well as its financial and legal advisors, and considered a number of factors. These factors include (i) Avigen s strategic alternatives, (ii) the consolidation of the intellectual property related to ibudilast and (iii) the opportunity for Avigen stockholders to participate in the short and long-term value of MediciNova s preclinical and clinical development programs. See The Merger Avigen s Reasons for the Merger; Recommendation of Avigen s Board of Directors beginning on page 82 of this joint proxy statement/prospectus.

Opinion of Avigen s Financial Advisor

On August 20, 2009, as financial advisor to Avigen s board of directors, RBC Capital Markets Corporation, or RBC, rendered its written opinion to Avigen s board of directors that, as of that date and subject to the assumptions, qualifications and limitations set forth in its opinion, the Merger Consideration payable in the Merger was fair, from a financial point of view, to Avigen stockholders. The full text of RBC s written opinion dated as of August 20, 2009, which sets forth the assumptions made, matters considered, procedures followed, and limitations on the review undertaken by RBC in rendering its opinion, is attached as Annex G to this joint proxy statement/prospectus and is incorporated herein by reference. RBC s opinion is not intended to be, and does not constitute, a recommendation to you as to how you should vote or act with respect to the Merger or any other matter relating thereto. See The Merger Opinion of RBC Capital Markets Corporation Financial Advisor to Avigen beginning on page 91 of this joint proxy statement/prospectus.

Interests of Avigen s Directors and Executive Officers in the Merger

In considering the recommendation of Avigen s board of directors with respect to adoption of the Merger Agreement, Avigen stockholders should be aware that members of the board of directors and executive officers of Avigen have interests in the Merger that may be different from, or in addition to, interests they have as Avigen stockholders. These interests may create an appearance of a conflict of interest. Avigen s board of directors was aware of these potential conflicts of interest during its deliberations on the merits of the Merger and in making its decision in approving the Merger, the Merger Agreement and the related transactions.

Subject to applicable Delaware law, from and after the effective time of the Merger, MediciNova has agreed to cause the surviving entity to maintain and honor all indemnification arrangements in place for all past and present directors, officers, employees and agents of Avigen and its subsidiaries as of the date of the Merger Agreement under Avigen s amended and restated certificate of incorporation and amended and restated bylaws and the indemnification agreements disclosed to MediciNova for acts or omissions occurring at or prior to the effective time of the Merger.

Table of Contents

Avigen s board of directors has established a management transition plan intended to retain key employees and enable executive officers to represent stockholder interests during periods involving a possible change in control of Avigen and to provide severance benefits in the event of termination of employment without cause. The management transition plan was designed to protect the earned benefits of key employees, including executive officers, against adverse changes that may result from a change in control of Avigen or termination without cause. As amended, the management transition plan will terminate in connection with the Merger, and the scheduled payouts under the management transition plan will occur upon termination or shortly thereafter, except to the extent necessary to delay payouts to avoid adverse tax consequences.

Five of Avigen s current and former named executive officers are participants in the plan and are entitled to receive the following benefits if his or her employment is involuntarily terminated, or he or she resigns as a result of a constructive termination, as defined under the management transition plan:

- 15 months base salary (21 months, in the case of Dr. Kenneth Chahine, J.D., Ph.D., Avigen s former Chief Executive Officer and President);
- full accelerated vesting of outstanding stock options; and
- 15 months (18 months, in the case of Dr. Chahine) health benefits payments, or until such earlier date as the executive officer secures subsequent employment that provides substantially similar health benefits.

If such a termination had occurred on September 30, 2009, Avigen s current named executive officers would have received the following benefits:

Name	Salary Continuation	COBRA Payments
Andrew A. Sauter	$ 334,914	$ 22,041
Kirk Johnson	$ 348,160	$ 21,645

Regardless of whether the Merger is consummated, these amounts, subject to de minimis adjustments to the cost of payments under the Consolidated Omnibus Budget Reconciliation Act (COBRA), will be payable at the time of such named executive officers termination.

The employment of three of Avigen s former named executive officers, Dr. Chahine, M. Christina Thomson, J.D., Avigen s former Vice President, General Counsel and Secretary, and Michael Coffee, Avigen s former Chief Business Officer, was terminated in March 2009, at which time such executive officers became entitled to receive benefits under the plan. The amounts payable to these former executive officers, which are specified below, are currently being paid and will be paid whether or not the Merger is consummated.

Name	Salary Continuation	COBRA Payments
Kenneth Chahine, J.D., Ph.D.	$ 775,689	$ 32,656
Michael Coffee	$ 392,379	$ 4,813
M. Christina Thomson, J.D.	$ 334,914	$ 8,594

Andrew A. Sauter, Avigen s current Chief Executive Officer, President and Chief Financial Officer, and Kirk Johnson, Ph.D., Avigen s Vice President, Research and Development, are expected to receive cash bonuses for the remainder of Avigen s existence as determined by Avigen s compensation committee of the board of directors, in its sole discretion, based on the estimated value to be received by Avigen s stockholders upon completion of the Merger or dissolution of Avigen, as applicable. The receipt of cash bonuses by Messrs. Sauter and Johnson is not conditioned on the completion of the Merger. However, based on the anticipated amount of consideration estimated to be paid by MediciNova in the Merger, an aggregate of $150,000 in cash bonuses have been included in Avigen s estimated closing liabilities, with the precise amount of such awards expected to be determined prior to consummation of the Merger.

13

Table of Contents

Under the CPR Agreement, Andrew A. Sauter, Avigen s current Chief Executive Officer, President and Chief Financial Officer, or any successor person appointed in accordance with the CPR Agreement will receive fees of $1,500 per month plus reimbursement of reasonable, documented out-of-pocket expenses of up to $50,000 for serving as the representative of the interests of former Avigen stockholders under such agreement. If Mr. Sauter decides not to act as such representative, then Kenneth G. Chahine, J.D., Ph.D., a current director of Avigen and the company s former Chief Executive Officer and President, will be eligible, at his election, to act as the representative of former Avigen stockholders under such agreement, thereby entitling him to receive such fees and reimbursement of expenses. See The Merger Interests of Avigen s Directors and Executive Officers in the Merger beginning on page 84 of this joint proxy statement/prospectus.

Regulatory Approvals

No federal or state regulatory approvals are required in connection with the Merger and the issuance of the Convertible Notes, and neither Avigen nor MediciNova is subject to compliance with any federal or state regulatory requirements in connection with the Merger or issuance of the Convertible Notes.

Conditions of the Obligations of the Parties

The Merger Agreement provides that the obligations of MediciNova, Absolute Merger and Avigen to consummate and effect the Merger are subject to the satisfaction, at or prior to the effective time of the Merger, of certain satisfied conditions. See Certain Terms of the Merger Agreement and the CPR Agreement Conditions to the Obligations of Each Party, Certain Terms of the Merger Agreement and the CPR Agreement Additional Conditions to the Obligations of Avigen and Certain Terms of the Merger Agreement and the CPR Agreement Additional Conditions to the Obligations of MediciNova and Absolute Merger beginning on page 111 of this joint proxy statement/prospectus.

Termination of the Merger Agreement

The Merger Agreement provides that the boards of directors of MediciNova and Avigen can agree by mutual written consent to terminate the Merger Agreement at any time prior to the effective time of the Merger. In addition, the Merger Agreement provides that either MediciNova or Avigen may terminate the Merger Agreement, at any time prior to the effective time of the Merger, if certain specified events occur. See Certain Terms of the Merger Agreement and the CPR Agreement Termination of the Merger Agreement beginning on page 113 of this joint proxy statement/prospectus.

Fees and Expenses

In the event that Avigen s board of directors changes its recommendation regarding the Merger following receipt of a superior offer, and the Merger is not consummated, Avigen is required to reimburse MediciNova for 50 percent of its reasonable and documented out-of-pocket expenses up to a maximum $500,000. Each party otherwise will pay its own costs and expenses incurred in connection with the Merger Agreement and the transactions contemplated thereby.

Termination Fee

Except for the limited circumstances in which Avigen may be required to reimburse MediciNova for certain out-of-pocket expenses as described above, no termination fees are payable in connection with a termination of the Merger Agreement.

Table of Contents

Risk Factors

You should carefully review the section of this joint proxy statement/prospectus entitled Risk Factors beginning on page 22 of this joint proxy statement/prospectus, which sets forth certain risks and uncertainties related to the Merger, risks and uncertainties to which the combined company s business will be subject and risks and uncertainties to which each of MediciNova and Avigen, as an independent company, is subject. These risk factors should be considered along with any additional risk factors in the other information included in or incorporated by reference into this joint proxy statement/prospectus.

Listing of Shares of MediciNova Common Stock Issuable Upon Conversion of the Convertible Notes

MediciNova will use reasonable efforts to authorize for listing on Nasdaq prior to the effective time of the Merger, the shares of MediciNova common stock issuable upon conversion of the Convertible Notes to be issued in connection with the Merger, subject to official notice of issuance.

Delisting and Deregistration of Avigen Common Stock

If the Merger is completed, Avigen common stock will be delisted from Nasdaq and deregistered under the Securities Exchange Act of 1934, as amended, or the Exchange Act. Avigen also will cease to be a reporting company under the Exchange Act.

Tax Treatment

U.S. persons who hold Avigen stock generally will recognize capital gain or loss based on the difference between (1) the sum of cash received and the fair market value of each of the Convertible Notes, the Second Payment Consideration rights, and the CPRs received at the Merger and (2) their adjusted tax basis in their Avigen Stock. The tax treatment of the CPRs is unclear as is more fully described below. The Convertible Notes will bear original issue discount for which U.S. persons subject to tax will be required to report taxable income before payments are made with respect to the Convertible Notes. U.S. persons will be required to report the unstated interest with respect to Second Payment Consideration Rights in accordance with their normal method of accounting, and will recognize income, gain or loss on the payment of the Second Payment Consideration as described below. Non-U.S. persons generally will not be subject to withholding on original issue discount with respect to Convertible Notes received unless they fail to qualify for the exception from withholding on portfolio interest. See Material U.S. Federal Income Tax Consequences of the Merger beginning on page 215 of this joint proxy statement/prospectus.

Anticipated Accounting Treatment

MediciNova will account for the Merger under the acquisition method of accounting in accordance with the authoritative guidance under Accounting Standards Codification 805 (formerly Statement of Financial Accounting Standards No. 141(R), Business Combinations (Revised)). See The Merger Anticipated Accounting Treatment beginning on page 97 of this joint proxy statement/prospectus.

Appraisal Rights

Holders of Avigen common stock are entitled to appraisal rights under Delaware law. See the section entitled Annex H Copy of Section 262 of the Delaware General Corporation Law beginning on page H-1 of this joint proxy statement/prospectus.

Table of Contents

Material Differences in Rights of MediciNova Stockholders and Avigen Stockholders

When the Merger is completed, Avigen stockholders may become MediciNova stockholders upon conversion of any Convertible Notes received as part of the Merger Consideration. The rights of MediciNova stockholders differ from the rights of Avigen stockholders in certain important ways. These material differences include: (i) MediciNova stockholders may only remove directors for cause while Avigen stockholders may remove directors both with and without cause and (ii) ten percent of Avigen stockholders may call a special meeting while MediciNova stockholders have no ability to call a special meeting. See Comparison of Stockholder Rights and Corporate Governance Matters beginning on page 240 of this joint proxy statement/prospectus.

Comparative Closing Market Prices of MediciNova and Avigen Common Stock

The table below presents the closing market price on Nasdaq for MediciNova common stock and the closing market price for Avigen common stock on Nasdaq on August 20, 2009, the last trading day before the public announcement of the signing of the Merger Agreement and November 12, 2009. **The calculation for the equivalent price does not include, or attribute any value to, the option value of the Convertible Notes, which option value is estimated at approximately $16.4 million, or approximately $0.55 per share of Avigen common stock based upon the Black-Scholes option valuation and certain assumptions as of August 19, 2009, the day immediately prior to the signing of the Merger Agreement. In addition, the calculation for the equivalent price does not include, or attribute any value to, the CPRs.** As a result, these comparisons may not provide meaningful information to MediciNova stockholders in determining whether to adopt the Merger Agreement and approve the issuance of the Convertible Notes or to Avigen stockholders in determining whether to adopt the Merger Agreement. MediciNova and Avigen stockholders are encouraged to review carefully the other information contained or incorporated by reference in this joint proxy statement/prospectus in considering whether to approve the applicable proposals.

Date	MediciNova Closing Price	Avigen Closing Price	Equivalent Price (1)
August 20, 2009	$ 6.47	$ 1.33	$ 1.24
November 12, 2009	$ 6.01	$ 1.43	$ 1.24

(1) The equivalent price is equal to the estimated First Payment Consideration plus the estimated Second Payment Consideration and represents the principal amount of Convertible Notes that would be issued in exchange for each share of Avigen common stock assuming all such amounts were paid in Convertible Notes on the specified date.

Table of Contents

SELECTED HISTORICAL AND UNAUDITED PRO FORMA CONDENSED

COMBINED FINANCIAL DATA

The following tables present summary historical financial data for MediciNova and Avigen, summary unaudited pro forma condensed combined financial data for MediciNova and Avigen, and comparative historical and unaudited pro forma per share data for MediciNova and Avigen.

Selected Historical Consolidated Financial Data of MediciNova

The following selected financial data for the five years ended December 31, 2008 and for the period ended September 26, 2000 (inception) to December 31, 2008 are derived from the audited consolidated financial statements of MediciNova, Inc. The financial data for the nine month periods ended September 30, 2009 and 2008 are derived from unaudited financial statements. The unaudited financial statements include all adjustments, consisting of normal recurring accruals, which MediciNova, Inc. considers necessary for a fair presentation of the financial position and the results of operations for these periods. Operating results for the nine months ended September 30, 2009 are not necessarily indicative of the results that may be expected for the entire year ending December 31, 2009.

You should read the following financial information together with the information under the sections entitled MediciNova s Management s Discussion and Analysis of Financial Condition and Results of Operations and MediciNova s Business and MediciNova s financial statements and the related notes to these financial statements appearing elsewhere in this joint proxy statement/prospectus.

Selected Historical Consolidated Financial Data of MediciNova, Inc.

(in thousands, except share and per share amounts)	Nine Months Ended September 30,		Year Ended December 31,					For the period from September 26, 2000 (inception) to December 31, 2008
	2009 (unaudited)	2008 (unaudited)	2008	2007	2006	2005	2004	
Statement of Operations Data:								
Revenues	$	$	$	$	$ 264	$ 804	$ 490	$ 1,558
Operating expenses:								
Cost of revenues					147	674	438	1,258
Research and development	8,226	11,823	13,828	42,121	32,171	22,739	11,317	133,673
General and administrative	6,927	6,993	8,773	11,373	9,624	7,479	37,348	78,661
Total operating expenses	15,153	18,816	22,601	53,494	41,942	30,892	49,103	213,592
Operating loss	(15,153)	(18,816)	(22,601)	(53,494)	(41,678)	(30,088)	(48,613)	(212,034)
Gain /(impairment charge) on investment securities and ARS put, net	214	(3,296)	(1,260)					(1,260)
Foreign exchange (loss)/gain	(2)	(91)	(88)					(88)
Interest income, net	489	1,697	2,038	4,611	5,988	4,396	340	17,796
Income taxes	(1)	(4)	(14)	(20)				(33)
Net loss	$ (14,453)	$ (20,510)	$ (21,925)	$ (48,903)	$ (35,690)	$ (25,692)	$ (48,273)	$ (195,619)
Accretion to redemption value of redeemable convertible preferred stock						(20)	(79)	(98)
Deemed dividend resulting from conversion of Series C redeemable preferred stock							(31,264)	(31,265)

Net loss applicable to common stockholders	$	(14,453)	$	(20,510)	$	(21,925)	$	(48,903)	$	(35,690)	$	(25,712)	$	(79,616)	$	(226,982)
Basic and diluted net loss per common share	$	(1.20)	$	(1.70)	$	(1.82)	$	(4.16)	$	(3.52)	$	(2.88)	$	(1,592.32)		
Shares used to compute basic and diluted net loss per common share		12,088,029		12,072,027		12,072,027		11,752,139		10,130,920		8,928,533		50,000		

Table of Contents

(in thousands)	Nine Months Ended September 30, 2009 (unaudited)	Nine Months Ended September 30, 2008 (unaudited)	Year Ended December 31, 2008	2007	2006	2005	2004
Balance Sheet Data:							
Cash, cash equivalents and investment securities current	$ 47,034	$ 47,451	$ 19,297	$ 70,635	$ 104,051	$ 138,701	$ 50,801
Working capital	33,166	44,792	17,836	65,938	100,102	134,633	48,704
Total assets	55,949	51,879	50,224	73,752	111,591	142,394	53,769
Deficit accumulated during development stage	(241,436)	(225,567)	(226,982)	(205,057)	(156,154)	(120,465)	(94,753)
Total stockholders equity	35,853	48,106	48,045	66,608	100,981	135,708	7,669

Table of Contents

Selected Historical Financial Data of Avigen

The following selected financial data for the five years ended December 31, 2008 and for the period ended October 22, 1992 (inception) to December 31, 2008 are derived from the audited financial statements of Avigen, Inc. The financial data for the nine month periods ended September 30, 2009 and 2008 are derived from unaudited financial statements. The unaudited financial statements include all adjustments, consisting of normal recurring accruals, which Avigen, Inc. considers necessary for a fair presentation of the financial position and the results of operations for these periods. Operating results for the nine months ended September 30, 2009 are not necessarily indicative of the results that may be expected for the entire year ending December 31, 2009.

You should read the following financial information together with the information under the sections entitled Avigen s Management s Discussion and Analysis of Financial Condition and Results of Operations and Avigen s Business and Avigen s financial statements and the related notes to these financial statements appearing elsewhere in this joint proxy statement/prospectus.

Selected Historical Financial Data of Avigen, Inc.

	Nine Months Ended September 30,		Year Ended December 31,					For the period from October 22, 1992 (inception) to December 31,
(in thousands, except share and per share amounts)	**2009 (unaudited)**	**2008 (unaudited)**	**2008**	**2007**	**2006**	**2005**	**2004**	**2008**
Statement of Operations Data:								
Revenues	$ 103	$	$ 7,100	$	$ 103	$ 12,026	$ 2,195	$ 22,674
Operating expenses:								
Research and development	3,566	17,841	23,607	20,681	15,219	13,775	19,344	200,787
General and administrative	8,180	6,398	8,696	8,633	8,860	8,264	8,367	86,643
Impairment loss on long-lived assets		(274)	139		450	6,130		6,719
In-license fees		2,500	2,500		3,000			10,534
Total operating expenses	11,746	26,465	34,942	29,314	27,529	28,169	27,711	304,683
Operating loss	(11,643)	(26,465)	(27,842)	(29,314)	(27,426)	(16,143)	(25,516)	(282,009)
Interest income, net	1,071	2,067	2,491	3,466	2,535	1,359	1,696	34,781
Sublease income	594	270	365	703	565	67		1,700
Other (expense) income, net	9	(27)	(113)	(19)	70	21	(103)	(266)
Net loss	$ (9,969)	$ (24,155)	$ (25,099)	$ (25,164)	$ (24,256)	$ (14,696)	$ (23,923)	$ (245,794)
Basic and diluted net loss per common share	$ (0.33)	$ (0.81)	$ (0.84)	$ (0.90)	$ (1.03)	$ (0.71)	$ (1.17)	
Shares used to compute basic and diluted net loss per common share	29,807,557	29,764,487	29,765,651	27,962,202	23,509,378	20,624,229	20,362,155	
Balance Sheet Data:								
Cash, cash equivalents, available-for-sale securities, and restricted investments	$ 39,903	$ 56,410	$ 56,839	$ 78,114	$ 70,768	$ 70,388	$ 76,218	
Working capital	36,013	45,057	45,513	67,168	59,467	59,649	63,873	
Total assets	40,340	58,106	58,046	81,069	75,017	76,264	90,507	
Long-term obligations	461	7,656	602	7,796	1,570	9,282	9,064	
	(255,763)	(244,850)	(245,794)	(220,695)	(195,531)	(171,275)	(156,579)	

Deficit accumulated during development stage								
Total stockholders	equity	37,783	47,182	47,204	69,832	63,477	65,464	79,875

Table of Contents

Selected Unaudited Pro Forma Condensed Combined Financial Data of MediciNova and Avigen

(In thousands, except per share amounts)

The following selected unaudited pro forma condensed combined financial information was prepared using the acquisition method of accounting. The unaudited pro forma condensed combined balance sheet is based on the individual historical consolidated balance sheets of MediciNova and Avigen as of September 30, 2009, and has been prepared to reflect the merger of MediciNova and Avigen as of September 30, 2009. The unaudited pro forma condensed combined statements of operations are based on the individual historical consolidated statements of operations of MediciNova and Avigen and combine the results of operations of MediciNova and Avigen for the year ended December 31, 2008 and the nine months ended September 30, 2009, giving effect to the Merger as if it occurred as of the beginning of the periods presented, reflecting only pro forma adjustments expected to have a continuing impact on the combined results. The unaudited pro forma condensed combined financial statements assume that each share of Avigen common stock (together with the associated preferred stock purchase right) was cancelled and extinguished in exchange for Convertible Notes issued by MediciNova on the date of completion of the Merger. It is also assumed in the unaudited pro forma condensed combined financial statements that all Convertible Notes were converted into shares of MediciNova common stock at a conversion price of $6.80 per share on the date of completion of the Merger.

The selected unaudited pro forma condensed combined financial data are presented for illustrative purposes only and are not necessarily indicative of the combined financial position or results of operations of future periods or the results that actually would have been realized had the entities been a single entity during these periods. The selected unaudited pro forma condensed combined financial data as of and for the nine months ended September 30, 2009 and for the year ended December 31, 2008 are derived from the unaudited pro forma condensed combined financial information and the historical financial statements of MediciNova and Avigen and should be read in conjunction with that information. For more information, please see the section entitled Unaudited Pro Forma Condensed Combined Financial Statements in this joint proxy statement/prospectus and the consolidated financial statements of MediciNova and Avigen included in this joint proxy statement/prospectus.

	For the Year Ended December 31, 2008	For the Nine Months Ended September 30, 2009
Unaudited Pro Forma Condensed Combined Statement of Operations Data:		
Total revenue	$ 7,100	$ 103
Research and development expense	39,935	11,792
General and administrative expense	17,356	12,237
Loss from operations	(50,191)	(23,926)
Net loss	$ (47,024)	$ (22,155)

	As of September 30, 2009
Unaudited Pro Forma Condensed Combined Balance Sheet Data:	
Cash and cash equivalents	$ 57,776
Working capital	64,842
Total assets	95,137
Stockholders equity	70,984

Table of Contents

Comparative Historical and Unaudited Pro Forma Per Share Data

The information below reflects the historical net loss and book value per share of MediciNova common stock and the historical net loss and book value per share of Avigen common stock in comparison with the unaudited pro forma net loss and book value per share after giving effect to the proposed merger of MediciNova with Avigen on an acquisition method of accounting basis.

You should read the tables below in conjunction with the audited and unaudited financial statements of MediciNova, Inc. included in this joint proxy statement/prospectus and audited and unaudited financial statements of Avigen, Inc. included in this joint proxy statement/prospectus and the related notes and the unaudited pro forma condensed financial information and notes related to such financial statements included elsewhere in this joint proxy statement/prospectus.

MEDICINOVA

	Year Ended December 31, 2008	Nine Months Ended September 30, 2009
Historical Per Common Share Data:		
Net loss per common share basic and diluted	$ (1.82)	$ (1.20)
Book value per share	$ 4.01	$ 2.96

AVIGEN

	Year Ended December 31, 2008	Nine Months Ended September 30, 2009
Historical Per Common Share Data:		
Net loss per common share basic and diluted	$ (0.84)	$ (0.33)
Book value per share	$ 1.59	$ 1.27

MEDICINOVA AND AVIGEN

	Year Ended December 31, 2008	Nine Months Ended September 30, 2009
Combined Unaudited Pro Forma Per Share Data:		
Net loss per common share basic and diluted	$ (2.72)	$ (1.28)
Book value per share		$ 4.11

Table of Contents

RISK FACTORS

You should consider the following factors in evaluating whether to approve the proposals described in this joint proxy statement/prospectus. These factors should be considered in conjunction with the other information included by MediciNova and Avigen in this joint proxy statement/prospectus.

Risks Related to the Merger

Satisfying closing conditions may delay or prevent completion of the Merger.

Specified conditions must be satisfied or waived in order for MediciNova, Absolute Merger and Avigen to complete the Merger. These conditions include the requirement that no governmental entity issues an order, decree, injunction or other order or ruling makes the Merger illegal or otherwise prohibits consummation of the Merger, that the SEC declares the Registration Statement on Form S-4 effective and that the shares of MediciNova common stock required to be reserved for issuance in connection with the conversion of the Convertible Notes have been duly authorized for listing by Nasdaq subject to official notice of issuance. MediciNova and Avigen cannot assure you that all of the conditions will be satisfied. If the conditions are not satisfied or waived, the Merger may not occur or may be delayed, and MediciNova and Avigen each may lose some or all of the intended benefits of the Merger. MediciNova and Avigen cannot assure you that a delay in satisfying the closing conditions would not be detrimental to MediciNova or Avigen. If the combined company is unable to realize the strategic and financial benefits anticipated from the Merger, MediciNova stockholders may experience substantial dilution of their ownership interest in connection with the Merger without receiving any commensurate benefit.

The Merger is subject to approval by holders of a majority of the outstanding shares of each of MediciNova and Avigen, and neither MediciNova nor Avigen can assure you that such stockholders will approve the Merger.

Under the Merger Agreement, holders of a majority of the outstanding shares of MediciNova common stock must approve the adoption of the Merger Agreement and approve the issuance of the Convertible Notes contemplated thereunder. Holders of a majority of the outstanding shares of Avigen common stock also must approve the adoption of the Merger Agreement. MediciNova and Avigen cannot assure you that the Merger will be adopted by the stockholders of both companies, in which case the Merger Agreement may be terminated. In the event that the Merger is not consummated, MediciNova and Avigen may be subject to many risks, including the inability to recognize the benefits of a combined clinical development program based on ibudilast and the costs related to the Merger, such as legal, accounting and advisory fees, which must be paid even if the Merger is not completed. In addition, Avigen is expected to commence voluntary dissolution proceedings under Delaware law if its stockholders do not approve the Merger.

The First Payment Consideration may have a larger or smaller value than expected at the time the Merger Agreement was signed.

The First Payment Consideration is subject to adjustment based on activities related to the liquidation or sale of certain assets of Avigen in connection with the winding down of its operations prior to closing. The Merger Agreement establishes the method for calculating the First Payment Consideration, which is expected to be approximately $1.19 per share of Avigen common stock. The First Payment Consideration is equal to $35,461,000 divided by the number of shares of Avigen common stock outstanding immediately prior to the effective time of the Merger. The aggregate First Payment Consideration is subject to downward adjustment (on a dollar for dollar basis) in the event that the aggregate cash liquidation proceeds of the marketable securities and restricted investments held by Avigen as of June 30, 2009 are less than $27,721,000. In the event that, prior to the effective time of the Merger, Avigen sells or otherwise disposes of its rights to the first milestone payment under the Genzyme Agreement the aggregate First Payment Consideration will be increased by the amount received by Avigen pursuant to such transaction. In addition, in the event that, prior to the effective time of the Merger,

Table of Contents

Avigen sells or otherwise disposes of all of its rights under the Genzyme Agreement, the aggregate First Payment Consideration will be increased by the amount received by Avigen pursuant to such transaction less 50 percent of all amounts received by Avigen pursuant to such transaction in excess of $6,000,000. Accordingly, Avigen stockholders could receive consideration at the closing with considerably more or less value than anticipated.

The Second Payment Consideration may have a larger or smaller value than expected at the time the Merger Agreement was signed.

The aggregate Second Payment Consideration is subject to upward adjustment based on savings in estimated expenses through closing and receipt of certain payments post-closing, as well as downward adjustment in the event that actual closing liabilities exceed estimated liabilities through closing. For example, to the extent salaries paid by Avigen from the date of the signing of the Merger Agreement to closing exceed $298,530, the aggregate Second Payment Consideration would be reduced by such excess. The Second Payment Consideration will be equal to the amount remaining in the escrow account described herein following satisfaction of the demand amount, as adjusted by the selected amount, as described below, divided by the number of shares of Avigen s common stock outstanding immediately prior to the effective time of the Merger.

Under the terms of an escrow agreement to be entered into at the time of completion of the Merger, Avigen will deposit in an escrow account $1,500,000, or approximately $0.05 per share of Avigen common stock, plus the amount by which the aggregate cash liquidation proceeds of its marketable securities and restricted investments held as of June 30, 2009 exceed $28,021,000. After closing, MediciNova also will deposit into the escrow account certain payments, including royalties pursuant to an agreement between Avigen and Advanced Cell Technology, Inc., if any, received during the escrow period and excess cash amounts collected from subtenants at Avigen s current headquarters, to the extent such payments exceed specified amounts agreed upon by the parties.

On or prior to June 30, 2010, MediciNova will be entitled to submit one demand certificate to claim all or a portion of the funds in the escrow account, or the demand amount, with respect to certain additional liabilities of Avigen related to its business activities and operations prior to the effective time of the Merger, including any amounts paid to current or former directors and officers of Avigen in connection with releases delivered by such individuals under the Merger Agreement, liabilities in excess of specified amounts agreed upon by the parties and the expenses of the representative of the Avigen stockholders incurred in connection with the Merger Agreement and the CPR Agreement. Upon delivery of MediciNova s demand certificate, amounts in the escrow account that are not being demanded in satisfaction of additional liabilities will be released to former Avigen stockholders on a pro rata basis. A stockholder representative will be entitled to dispute the demand amount, and an independent accounting firm will resolve any unresolved dispute between MediciNova and the stockholder representative with respect to the demand amount. Prior to resolution of any dispute regarding the demand amount, all amounts set forth in the demand certificate that are not being contested by the stockholder representative will be released to MediciNova.

Following resolution of the dispute regarding the demand amount, which requires the independent accounting firm to select either the amount demanded by MediciNova or the amount of such demand as adjusted by the amounts contested by the stockholder representative as the numerical amount it believes is the accurate amount of additional liabilities, or the selected amount, MediciNova will receive an amount reflecting any adjustments resulting from the selected amount. Any remaining amounts in the escrow account then will be released to former Avigen stockholders on a pro rata basis. Accordingly, Avigen stockholders could receive less than $0.05 per share as part of the Second Payment Consideration.

The CPRs may expire worthless.

Under the terms of the Merger Agreement, at the effective time of the Merger, each share of Avigen common stock (and the associated preferred stock purchase right) will be cancelled and extinguished in return for

Table of Contents

certain consideration, including the right to receive one CPR. At the completion of the Merger, MediciNova, Avigen and the rights agent will enter into the CPR Agreement. The CPR Agreement will set forth the rights that former Avigen stockholders will have with respect to each CPR held after the completion of the Merger. The CPR Agreement provides for the payment of the following amounts (net of applicable expenses and taxes) on a pro rata basis:

- if the first milestone payment under the Genzyme Agreement is received within 20 months of the effective time of the Merger, $6,000,000 or such lesser cash amount paid by Genzyme less certain costs and expenses;

- if the first milestone payment has not occurred and the Parkinson s Product, as defined in the Genzyme Agreement, is sold or otherwise disposed of by MediciNova within 20 months of the effective time of the Merger, 50 percent of the difference between the net proceeds of such sale or disposition received within such 20-month period and certain costs and expenses; and

- if the trust established pursuant to Avigen s management transition plan is terminated, the amount remaining in such trust upon termination (less any payments required to be made under Avigen s management transition plan trust agreement), which is currently estimated at $550,000.

MediciNova and Avigen cannot assure you that any of these events will occur or that MediciNova will receive the amounts owing upon occurrence of such events. In addition, MediciNova will be in control of the Genzyme relationship and does not have a direct financial incentive to actively pursue the payment of the first milestone payment for the benefit of Avigen s stockholders within the 20-month timeframe. If the payment events do not occur within the timeframes required, or do occur but amounts owing are not paid, no payments will be made under the CPR Agreement. Accordingly, the CPRs may ultimately have no value and expire worthless. See Genzyme Agreement beginning on page 118 of this joint proxy statement/prospectus for a description of the events that would trigger the milestone payment and current status.

You may not be able to determine the amount of cash to be received under the CPRs, which makes it difficult to value the CPRs.

The actual amount of any CPR payment cannot be determined until the occurrence of an event that would result in a CPR payment, and the amount received may be significantly less than expected particularly if significant costs are expended in an effort to receive such payments. The amount of actual payments on the CPRs is highly speculative, and accordingly, it may be difficult to value the CPRs.

The U.S. federal income tax treatment of the CPRs is unclear.

There is substantial uncertainty as to the tax treatment of the CPRs. The receipt of the CPRs as part of the merger consideration may be treated as a closed transaction or an open transaction for U.S. federal income tax purposes, which affects the amount of gain, if any, that may be recognized at the time of consummation of the Merger. See Material U.S. Federal Income Tax Consequences beginning on page 215 of this joint proxy statement/prospectus.

MediciNova and Avigen may not realize all of the anticipated benefits of the transaction.

Completion of the Merger will permit the combination of MediciNova s and Avigen s clinical development programs based on ibudilast (MediciNova s MN-166 and Avigen s AV411). Following completion of the Phase II clinical trial of MN-166 for the treatment of multiple sclerosis, or MS, in the second quarter of 2008, MediciNova has not undertaken, nor does it plan to undertake, any further significant clinical development of MN-166 until such time that it secures a strategic collaboration to advance the clinical development of MN-166. Following completion of the Merger, and aside from monitoring the NIDA-supported AV411 opioid withdrawal clinical trial in collaboration with Columbia University/New York State Psychiatric Institute, MediciNova does not intend to undertake any significant clinical development of AV411. Rather, MediciNova intends to integrate the two development programs and pursue discussions with potential partners to secure a strategic

Table of Contents

collaboration to advance the clinical development of the combined development program. MediciNova and Avigen cannot assure you that MediciNova will be able to secure such a strategic collaboration or otherwise further advance, or recognize value from, the MN-166 and AV411 clinical development programs.

Covenants in the Merger Agreement impede the ability of Avigen to solicit other transactions pending completion of the Merger, which may harm Avigen stockholders.

During the pendency of the Merger, Avigen is restricted from actively seeking alternative business combinations with another party. While the Merger Agreement is in effect and subject to narrowly defined exceptions, Avigen may not, directly or indirectly, (1) initiate, solicit or knowingly encourage (including by way of providing information), (2) engage in any discussions or negotiations with any third party regarding, (3) knowingly cooperate with or knowingly assist any third party in connection with or (4) knowingly facilitate the making by any third party of any inquiry, proposal or offer that constitutes or that would reasonably be expected to lead to an acquisition proposal. Any potential third party transaction that Avigen is prohibited from soliciting or encouraging could be favorable to Avigen stockholders and similar opportunities may not present themselves. If Avigen violates this no solicitation covenant, it will be in breach of the Merger Agreement, and MediciNova likely would be permitted to terminate the transaction.

In certain limited circumstances, Avigen will be required to pay certain expenses of MediciNova.

The terms of the Merger Agreement prohibit Avigen from knowingly cooperating with persons making acquisition proposals, except in limited circumstances when Avigen s board of directors determines in its good faith judgment that an unsolicited alternative acquisition proposal is or is reasonably likely to lead to a superior acquisition proposal and is reasonably capable of being consummated and that failure to cooperate with the proponent of the proposal could reasonably be considered a breach of Avigen board of directors fiduciary duties. If Avigen s board of directors changes its recommendation following receipt of a superior offer and Avigen stockholders do not approve the Merger, Avigen will be required to pay one-half of the reasonable and documented out-of-pocket legal, accounting and other advisory fees and expenses of MediciNova, up to a maximum of $500,000.

Failure to complete the Merger could harm the price of MediciNova common stock and MediciNova s future business and operations.

If the Merger is not completed, the price of MediciNova common stock may decline. From MediciNova s announcement of the signing of the nonbinding letter of intent with Avigen on June 25, 2009 until the date of filing of this joint proxy statement/prospectus, the trading price of MediciNova common stock on Nasdaq has more than doubled. If the parties terminate the Merger, the market might respond negatively to the announcement, which could harm the trading price of MediciNova common stock. In addition, if the Merger Agreement is terminated and MediciNova s board of directors determines to seek another business combination, there can be no assurance that it will be able to find a partner willing to enter into a similar transaction, which may adversely affect MediciNova s future business prospects.

Failure to complete the Merger may result in Avigen filing for liquidation and dissolution.

In November 2008, Avigen completed a significant restructuring plan to preserve its financial resources, minimize its exposure to fixed costs for staff and facilities and increase its control over the strategic timing and use of all of its resources. Prior to signing the Merger Agreement, Avigen s board of directors determined it would dissolve Avigen if it was unable to negotiate a sale of the company. If Avigen is unable to complete the Merger, it is expected to liquidate in a voluntary dissolution under Delaware law. In addition, the proceeds to Avigen stockholders from liquidation may be less than will be the consideration expected to be paid in the Merger.

Table of Contents

MediciNova may not be successful in listing the shares issuable upon conversion of the Convertible Notes on Nasdaq, which may prevent the consummation of the Merger or adversely affect Noteholders.

Under the terms of the Merger Agreement, MediciNova is required to submit a listing application to Nasdaq for the shares of MediciNova common stock that will be issued upon conversion of the Convertible Notes. Such application requires certain actions on MediciNova s part, including the filing of a supplemental listing application, which, if unsuccessful, would enable Avigen to terminate the Merger Agreement. If Avigen were to waive this closing condition, it could be more difficult for holders of the Convertible Notes to sell their shares upon conversion of the Convertible Notes or otherwise convert such investments into cash effectively.

Some of Avigen s officers and directors have conflicts of interest that may influence them to support or approve the Merger and have interests in the transaction that may be different from, or in addition to, the interests of Avigen stockholders.

Certain officers and directors of Avigen are participants in arrangements that provide them with interests in the Merger that may be different from yours. These interests may influence the officers and directors of Avigen to support or approve the Merger and therefore may create potential conflicts of interest.

These interests and arrangements include:

- severance arrangements with Avigen s current and former executive officers that provide for the payment of an aggregate of approximately $3.4 million of severance pay and benefits under the terms of the Avigen, Inc. Management Transition Plan;

- Andrew A. Sauter, Avigen s current Chief Executive Officer, President and Chief Financial Officer, and Kirk Johnson, Ph.D., Avigen s Vice President, Research and Development, are expected to receive cash bonuses in connection with the negotiation of the Merger in amounts to be determined by Avigen s compensation committee of the board of directors in its sole discretion, with an aggregate of $150,000 in cash bonuses included in Avigen s estimated closing liabilities;

- under the CPR Agreement, Mr. Sauter or any successor person appointed in accordance with the CPR Agreement will receive fees of $1,500 per month and reimbursement of expenses up to $50,000 for serving as the representative of former Avigen stockholders, and Kenneth G. Chahine, J.D., Ph.D., Avigen s former Chief Executive Officer and President and a current director, will be eligible, at his election, to act in such role (and receive such fees and expenses) if Mr. Sauter declines to serve as representative; and

- continued indemnification and insurance coverage as required under the Merger Agreement.

As a result of these interests, directors and officers of Avigen may be more likely to vote and, in the case of directors, recommend to stockholders that they vote, to adopt the Merger Agreement than if they did not hold these interests and may have reasons for doing so that are not the same as the interests of other stockholders. See The Merger Interests of Avigen s Directors and Executive Officers in the Merger beginning on page 84 of this joint proxy statement/prospectus.

The Merger may be completed even though certain material adverse changes have occurred.

In general, either MediciNova or Avigen can delay the completion of the Merger if there is a material adverse change affecting the other party between August 20, 2009, the date of the Merger Agreement, and the closing. However, certain types of changes do not permit either party to refuse to complete the Merger, even if such change would have a material adverse effect on MediciNova or Avigen, including:

- any adverse effect generally affecting the industry in which MediciNova or Avigen operates or conducts its business or the economy or the financial or securities markets in the United States or elsewhere in the world, including effects on such industries, economy or markets resulting from any regulatory an political conditions or developments or any natural disaster of any acts of terrorism,

26

Table of Contents

sabotage, military action or war (whether or not declared) or any escalation or worsening thereof (except in each case to the extent such changes disproportionately affect MediciNova or Avigen);

any adverse effect resulting from any legal proceedings arising from allegations of breach of fiduciary duty relating to the Merger Agreement or false or misleading public disclosure (or omission) in connection with the Merger Agreement made or brought by any of the current or former stockholders of the parties (on their own behalf or on behalf of the parties);

any change in the market price or trading volume of the outstanding securities of MediciNova or Avigen;

any failure by MediciNova or Avigen to meet internal projections or forecasts or published revenue or earnings predictions for any period;

any adverse effect arising directly or indirectly from or otherwise relating to any act of God, any act of terrorism, war or other armed hostilities, any regional, national or international calamity or any other similar event; or

any adverse effect resulting from the announcement or pendency of the Merger or the proposal thereof (including the loss or departure of employees or adverse developments in relationships with customers, suppliers, distributors or other business partners) or the Merger Agreement and the transactions contemplated hereby.

If any such adverse changes occur but MediciNova and Avigen still complete the Merger, the stock price of the combined company may suffer as well as the business prospects for the combined company.

Regardless of whether the Merger is consummated, the announcement and pendency of the Merger could cause disruptions in the business of MediciNova, which could have an adverse effect on its business and financial results.

Whether or not the Merger is consummated, the announcement and pendency of the Merger could cause disruptions in or otherwise negatively affect the business of MediciNova. The proposed business combination of MediciNova and Avigen may also disrupt business relationships, which could cause other parties to delay or defer decisions about current and future agreements with MediciNova because of the pending Merger. Further, prospective employees of MediciNova may experience uncertainty about their future roles with MediciNova, which might adversely affect MediciNova s ability to retain and recruit employees and consultants. In addition, the attention of management of MediciNova may be directed from business operations toward the consummation of the Merger. These disruptions could be exacerbated by a delay in the consummation of the Merger or termination of the Merger Agreement and could have an adverse effect on the business and financial results of MediciNova if the Merger is not consummated.

If the Merger is not consummated, MediciNova and Avigen each will have incurred substantial costs and the market price of MediciNova and Avigen common stock may be adversely affected.

MediciNova and Avigen each have incurred substantial costs in connection with the Merger. These costs are primarily associated with the fees of their respective financial advisors, accountants and attorneys. In addition, Avigen is subject to numerous restrictions contained in the Merger Agreement on the conduct of its businesses pending the completion of the Merger. For example, Avigen is not permitted, without consent of MediciNova, to enter into any binding agreement, letter or intent or similar agreement with respect to any material joint venture, strategic partnership, collaboration, license or alliance. If the Merger is not consummated, MediciNova and Avigen will have incurred significant costs and diverted substantial resources, from which they will have received little or no benefit. In addition, Avigen may have foregone certain business opportunities that may have realized stockholder value.

Table of Contents

Pending or threatened litigation may impede consummation of the Merger and materially affect the financial condition of Avigen.

On August 24, 2009, The Pennsylvania Avenue Funds, an Avigen stockholder, filed a complaint in Alameda County Superior Court alleging that Avigen s directors breached their fiduciary duties in connection with the proposed transaction with MediciNova. On October 15, 2009, The Pennsylvania Avenue Funds filed an amended complaint adding MediciNova as a defendant. In the amended complaint, The Pennsylvania Avenue Funds alleged, among other things, that MediciNova aided and abetted the alleged breach of fiduciary duties by the Avigen directors. The Pennsylvania Avenue Funds purportedly brings the action on behalf of a stockholder class and may seek injunctive relief, compensatory and rescissory damages, and attorney s fees. If the suit is successful, the court may order remedies, including payment of damages. In addition, the costs associated with the litigation may result in a reduction of the Second Payment Consideration to the extent that expenses of defending this litigation increase Avigen s liabilities, in the event it is deemed liable or expends substantial funds in defense of the claims, or impose significant costs on MediciNova in the event it is deemed liable or expends substantial funds in defense of the claims. Additional third parties, including other entities or private persons, may also seek to enjoin or rescind the proposed transaction.

If any of the events described in Risks Related to MediciNova s Business and Industry, Risks Related to MediciNova s Intellectual Property, Risks Related to the Securities Markets and Investment in MediciNova Common Stock, Risks Related to Avigen s Business and Risks Related to the Combined Company occur, those events could cause the potential benefits of the Merger not to be realized.

Following the effective time of the Merger, the combined company will be susceptible to many of the risks described in the sections herein entitled Risks Related to MediciNova s Business and Industry, Risks Related to MediciNova s Intellectual Property, Risks Related to the Securities Markets and Investment in MediciNova Common Stock, Risks Related to Avigen s Business and Risks Related to the Combined Company. To the extent any of the events in the risks described in those sections occur, those events could cause the potential benefits of the Merger not to be realized and the market price of the combined company s common stock to decline.

Risks Related to the Convertible Notes and MediciNova Common Stock

The Convertible Notes do not contain restrictive covenants regarding debt incurrence, and MediciNova may incur substantially more debt or take other actions which may affect its ability to satisfy its obligations under the Convertible Notes.

The Indenture does not contain any financial or operating covenants or restrictions on the incurrence of indebtedness (including secured debt), the payments of dividends or the issuance or repurchase of securities by MediciNova or any of its subsidiaries. In addition, the limited covenants applicable to the Convertible Notes do not require MediciNova to achieve or maintain any minimum financial results relating to its financial condition or results of operations.

MediciNova s ability to recapitalize, incur additional debt and take a number of other actions are not limited by the terms of the Convertible Notes, and any such actions could have the effect of diminishing MediciNova s financial condition and results of operations. MediciNova also cannot assure you that it will have sufficient assets available to repay the Convertible Notes at maturity.

An active trading market for the Convertible Notes is not expected to develop, which may impair their liquidity and reduce their market price.

The Convertible Notes are a new issue of securities for which there is currently no trading market. MediciNova cannot assure you that an active trading market for the Convertible Notes will develop or be

Table of Contents

sustained. MediciNova does not intend to list the Convertible Notes on any national securities exchange. If an active trading market for the Convertible Notes fails to develop or be sustained, the liquidity and trading prices of the Convertible Notes could be adversely affected.

Even if an active trading market for the Convertible Notes were to develop, they may trade at prices lower than their face value depending on many factors, some of which are beyond MediciNova s control, including:

- prevailing interest rates;
- demand for convertible debt securities generally;
- general economic conditions;
- MediciNova s financial condition, performance and future prospects; and
- prospects for companies in the biopharmaceutical industry generally.

There may be future sales or other dilution of MediciNova s equity, which may adversely affect the market price of MediciNova common stock and the value of the Convertible Notes.

The Indenture does not restrict MediciNova from issuing equity securities, including securities that are convertible into or exchangeable for, or that represent the right to receive, MediciNova common stock. Sales of a substantial number of newly-issued shares of MediciNova common stock or other equity-related securities in the public market could depress the price of MediciNova common stock, the value of the Convertible Notes or both. MediciNova cannot predict the effect that future sales of MediciNova common stock or other equity-related securities would have on the price of MediciNova common stock or the value of the Convertible Notes.

Fluctuations in the price of MediciNova common stock may deter Avigen stockholders from converting the Convertible Notes into shares of MediciNova common stock.

Volatility or depressed prices for MediciNova common stock could deter Noteholders from electing to convert into MediciNova common stock. The market prices for securities of biopharmaceutical and biotechnology companies, and early-stage drug discovery and development companies like MediciNova in particular, have historically been highly volatile and may continue to be highly volatile in the future. For example, since the date of MediciNova s initial public offering in Japan on February 4, 2005 through the date of this joint proxy statement/prospectus, MediciNova common stock has traded on Nasdaq as high as approximately $42.00 per share and as low as approximately $1.50 per share.

Noteholders may submit conversion notices, which are irrevocable, instructing the trustee to convert their Convertible Notes into shares of MediciNova common stock at an initial conversion price of $6.80 per share. Following each conversion date, which date generally is the final business day of each calendar month, MediciNova will issue the number of whole shares of common stock issuable upon conversion as promptly as practicable and in any event within ten business days. MediciNova cannot assure that the price of MediciNova common stock will exceed $6.80 at any time or that the price of its common stock will not decline between a Noteholder s submission of a conversion notice and the issuance of shares of MediciNova common stock.

The conversion price of $6.80 represents a five percent premium to the $6.47 closing price of MediciNova shares on Nasdaq on August 20, 2009, the date of signing of the Merger Agreement, and represents a 13 percent premium to the $6.01 closing price on November 12, 2009, the second business day date prior to filing this joint proxy statement/prospectus. Holders may choose not to convert their Convertible Notes into MediciNova common stock and may instead elect to receive cash at maturity. If a substantial number of Noteholders instead elect to receive cash, this may reduce the funds that would otherwise be available to MediciNova as a result of the Merger.

29

Table of Contents

The conversion rate of the Convertible Notes may not be adjusted for all dilutive events.

The conversion rate of the Convertible Notes will be subject to adjustment for certain events, including the issuance of stock dividends on MediciNova common stock or subdivisions or combinations of MediciNova common stock, the distribution of options, rights or warrants, the distribution of evidences of indebtedness or assets, the payment of cash dividends and certain issuer tender or exchange offers as described under Description of Convertible Notes Conversion Rate; Adjustments. The conversion rate, however, will not be adjusted for other events that may adversely affect the value of the Convertible Notes or the price of MediciNova common stock, including additional issuances of common stock for cash. Any securities issuance for which there is no anti-dilution protection in the Indenture will result in each Convertible Note representing an interest in a smaller equity ownership percentage of MediciNova upon conversion.

Noteholders will not have rights other than as holders of debt until the time of conversion, following which they will be subject to all the terms and conditions associated with MediciNova common stock from and after the time of conversion.

Noteholders will not be entitled to any rights with respect to MediciNova common stock (including voting rights and rights to receive any dividends or other distributions on MediciNova common stock). For example, in the event that an amendment is proposed to MediciNova s restated certificate of incorporation or amended and restated bylaws requiring stockholder approval and the record date for determining the MediciNova stockholders of record entitled to vote on the amendment occurs prior to delivery of the common stock, Noteholders will not be entitled to vote on the amendment in their capacity as Noteholders. Noteholders only will be entitled to the rights associated with MediciNova common stock if and when they deliver conversion notices and are issued MediciNova common stock in exchange for the Convertible Notes and will be subject to any changes in the powers, preferences or special rights of MediciNova common stock thereafter.

Holders of Convertible Notes may be deemed to receive a taxable distribution without the receipt of any cash or property.

The conversion rate of the Convertible Notes will be adjusted in certain circumstances. See the discussion under the heading Description of Convertible Notes Conversion Rate; Adjustments. Adjustments to the conversion rate of the Convertible Notes (or failures to make adjustments) that have the effect of increasing the Noteholders proportionate interest in MediciNova s assets or earnings may in some circumstances result in a constructive distribution taxable as a dividend to the extent of current or accumulated earnings and profits of MediciNova to Noteholders for U.S. federal income tax purposes, notwithstanding the fact that the Noteholders do not receive an actual distribution of cash or property. In addition, Noteholders that are Non-U.S. Holders (as defined in the discussion of Material U.S. Federal Income Tax Consequences of the Merger) may be subject to U.S. federal withholding taxes in connection with such a constructive distribution. If MediciNova pays withholding taxes on such Noteholders behalf as a result of an adjustment to the conversion rate of the Convertible Notes, MediciNova may, at its option and pursuant to certain provisions of the Indenture, set off such payments against payments of MediciNova common stock on the Convertible Notes. Noteholders are urged to consult their tax advisors with respect to the U.S. federal income tax consequences resulting from an adjustment to (or failure to adjust) the conversion rate of the Convertible Notes. See the discussions under the headings Material U.S. Federal Income Tax Consequences of the Merger Constructive Distributions and Material U.S. Federal Income Tax Consequences of the Merger U.S. Federal Income Tax Treatment of the Second Payment Consideration and Convertible Notes for Non-U.S. Holders.

U.S. persons who elect to receive Convertible Notes generally will recognize income in advance of the receipt of cash attributable to such income.

U.S. persons who elect to receive Convertible Notes generally will recognize gain or loss when they receive the notes, and if they recognize gain they will be subject to tax with respect to the portion of the gain attributable

Table of Contents

to such Convertible Notes regardless of the fact that they have not received (and may not in the future receive) cash with respect to such portion. In addition, the Convertible Notes will bear original issue discount for U.S. federal income tax purposes. Holders of the Convertible Notes (except, in certain circumstances, for Convertible Notes issued as Second Payment Consideration) who are U.S. persons generally must include original issue discount in gross income for U.S. federal income tax purposes on an annual basis under a constant yield accrual method regardless of their regular method of tax accounting. These holders must include original issue discount in income in advance of the receipt of cash attributable to such income. See Material U.S. Federal Income Tax Consequences of the Merger U.S. Federal Income Tax Treatment of the Convertible Notes.

Floating rate notes, such as the Convertible Notes, do not assure the interest rate the Noteholders will receive from their holdings.

The principal of the Convertible Notes will be invested in securities and all interest from such investments will be capitalized to the Convertible Notes. There is no guarantee the interest rate of the Convertible Notes will be stable or rise at any time. Floating rate debt securities, such as the Convertible Notes, are subject to adjustment of interest rates whenever market interest rates change. A decrease in interest rates could result in a decrease in the relative value of the Convertible Notes. Further, the principal and any subsequent amounts deposited in the trust account for the Convertible Notes will be invested in government securities within the meaning of Section 2(a)(16) of the Investment Company Act of 1940, as amended, or the Investment Company Act, having a maturity of 180 days or less, and/or in any open ended investment company registered under the Investment Company Act holding itself out as a money market fund meeting certain conditions under Rule 2a-7 promulgated under the Investment Company Act. Low interest rate levels associated with such securities and money market funds may limit the interest accruing to the Convertible Notes.

MediciNova s failure to convert the Convertible Notes into MediciNova common stock in accordance with the provisions of the Indenture will constitute a default under the Indenture.

MediciNova must satisfy its conversion obligation to Noteholders by issuing MediciNova common stock on the conversion date following delivery by a Noteholder of a conversion notice to the trustee by the applicable conversion date. Failure by MediciNova to deliver shares of MediciNova common stock upon conversion of the Convertible Notes within ten business days after the applicable conversion date will constitute an event of default under the Indenture. If an event of default occurs and is continuing, the trustee or the holders of at least 25 percent in principal amount of the Convertible Notes may declare the principal of and unpaid interest, which will be held in a trust account, on all Convertible Notes to be due and payable immediately. If MediciNova is required to pay all of the Convertible Notes, this may deplete funds available to MediciNova and materially adversely affect MediciNova s financial condition and business.

If MediciNova suffers an event of default under the Indenture, it may not be able to satisfy all of its financial obligations.

Under the Indenture, if an event of default (other than an event of default in connection with certain events of bankruptcy, insolvency or reorganization of MediciNova or any of its significant subsidiaries) occurs and is continuing, then the principal of and unpaid interest on all the Convertible Notes will be due and payable immediately by a notice in writing to MediciNova from the trustee or Noteholders holding not less than 25 percent of the principal of the outstanding Convertible Notes (and to the trustee if notice is given by the Noteholders). If an even of default occurs in connection with certain events of bankruptcy, insolvency or reorganization of MediciNova or any of its significant subsidiaries, then the principal of and any unpaid interest on all of the Convertible Notes will be immediately due and payable without any declaration or other act of the Noteholders. The Indenture includes customary events of default such as a default in the payment of the principal of or interest on the Convertible Notes when due and payable, default in the payment of certain other indebtedness and certain bankruptcy events.

Table of Contents

In the event that Noteholders or the trustee declare an event of default on the Convertible Notes and such default is not cured within any cure period, the Convertible Notes may be declared due and payable and MediciNova may not be able to satisfy all of its financial obligations. Further, Noteholders will lose the option value of their Convertible Notes upon any such acceleration.

Conversion of the Convertible Notes will result in dilution for existing MediciNova stockholders and may otherwise depress the trading price of MediciNova common stock.

If Noteholders convert their Convertible Notes, existing stockholders will experience dilution in their percentage ownership interest in MediciNova. In addition, sales of large blocks of MediciNova common stock received upon conversion of the Convertible Notes may depress the trading price for MediciNova common stock. Such fall in trading price may be more likely to occur as a result of MediciNova common stock being thinly traded.

Any elimination of the conversion feature in the event of certain specified reorganization events may not adequately compensate Noteholders for any lost option value of the Convertible Notes as a result of such events.

Under the Indenture, upon the occurrence of certain reorganization events in which the surviving corporation s equity securities are not registered with the SEC, the conversion feature on the Convertible Notes will be eliminated and the principal and interest on any outstanding Convertible Notes will be due and payable at maturity. The maturity of the Convertible Notes in connection with a reorganization event may not adequately compensate you for any lost option value of your Convertible Notes as a result of such transaction.

The Convertible Notes may not be fully secured if the investment of the principal of the Convertible Notes has negative returns.

The Convertible Notes are secured by the principal of the Convertible Notes, and any interest thereon, held in a trust account in accordance with the terms of the trust agreement. Such principal and interest will be invested in government securities within the meaning of Section 2(a)(16) of the Investment Company Act, having a maturity of 180 days or less, and/or in any open ended investment company registered under the Investment Company Act holding itself out as a money market fund meeting certain conditions under Rule 2a-7 promulgated under the Investment Company Act. To the extent that such investments have negative returns so that the amount in the trust account is less than the aggregate principal amount of the Convertible Notes, the Convertible Notes will not be fully secured.

Risks Related to MediciNova s Business and Industry

MediciNova has incurred significant operating losses since its inception and expects that it will incur continued losses for the foreseeable future.

MediciNova is a development stage biopharmaceutical company with a limited operating history. It has incurred significant net losses since its inception. For the three months and nine months ended September 30, 2009, MediciNova had a net loss of approximately $4.8 million and $14.5 million, respectively. At September 30, 2009, MediciNova s accumulated deficit was approximately $241.4 million. If MediciNova is successful in raising additional capital to support expansion, MediciNova s annual net losses may increase over the next several years as it expands its infrastructure and incurs significant costs related to the development of its product candidates.

MediciNova expects its research and development expenses to increase in connection with ongoing and planned clinical trials for its prioritized product candidates, primarily related to MN-221 for the treatment of

Table of Contents

acute exacerbations of asthma and chronic obstructive pulmonary disease, or COPD, exacerbations, and any other development activities that it may initiate. In addition, its general and administrative expenses may increase in future periods as a result of several factors, including its research and development activities, its business development activities and any expansions in its infrastructure related to such activities. Consequently, MediciNova expects to continue to incur significant and increasing operating losses for the foreseeable future. Because of the numerous risks and uncertainties associated with developing drug products, MediciNova is unable to predict the extent of any future losses or when it will become profitable, if at all.

MediciNova does not have any products that are approved for commercial sale and therefore does not expect to generate any revenues from product sales in the foreseeable future, if ever.

To date, MediciNova has funded its operations primarily from sales of its securities. It has not received, and does not expect to receive for at least the next several years, if at all, any revenues from the commercialization of its product candidates. MediciNova s only source of revenues since inception has been from development management services rendered to Asahi Kasei Pharma Corporation and Argenes, Inc., both Japanese pharmaceutical companies, in connection with their clinical development of pharmaceutical product candidates. MediciNova completed its agreement with Asahi Kasei Pharma Corporation and terminated its agreement with Argenes, Inc.; therefore, it will not generate any further revenues from these agreements. MediciNova anticipates that, prior to its commercialization of a product candidate, out-licensing upfront and milestone payments will be its primary source of revenue. To obtain revenues from sales of its product candidates, MediciNova must succeed, either alone or with third parties, in developing, obtaining regulatory approval for, manufacturing and marketing drugs with commercial potential. MediciNova may never succeed in these activities, and it may not generate sufficient revenues to continue its business operations or achieve profitability.

MediciNova is largely dependent on the success of its two prioritized product candidates, MN-221 and MN-166, and it cannot be certain that either of these product candidates will receive regulatory approval or be successfully commercialized.

MediciNova currently has no products for sale, and MediciNova cannot guarantee that MediciNova will ever have any drug products approved for sale. The research, testing, manufacturing, labeling, approval, selling, marketing and distribution of drug products are subject to extensive regulation by the U.S. Food and Drug Administration, or FDA, and comparable regulatory authorities in other countries. MediciNova is not permitted to market any of its product candidates in the United States until MediciNova submits and receives approval of a New Drug Application, or NDA, for a product candidate from the FDA or its foreign equivalent from a foreign regulatory authority. Obtaining FDA approval is a lengthy, expensive and uncertain process. MediciNova currently has two prioritized product candidates, MN-221 for the treatment of acute exacerbations of asthma and COPD exacerbations and MN-166 for the treatment of MS and the success of its business currently depends on their successful development and commercialization. Neither of these product candidates has completed the clinical development process; therefore, MediciNova has not submitted an NDA or foreign equivalent or received marketing approval for either of these two prioritized product candidates. In addition, MediciNova is not currently planning to pursue any further significant clinical development of MN-166 for the treatment of MS until such time that it is able to secure a strategic collaboration to advance the clinical development of MN-166, which may delay or impede the process of completing clinical trials and seeking regulatory approval for this product candidate.

The clinical development programs for MN-221 and MN-166 may not lead to commercial products for a number of reasons, including if MediciNova fails to obtain necessary approvals from the FDA or similar foreign regulatory authorities because its clinical trials fail to demonstrate to their satisfaction that these product candidates are safe and effective. MediciNova may also fail to obtain the necessary approvals if it has inadequate financial or other resources to advance its product candidates through the clinical trial process or is unable to secure a strategic collaboration or partnership with a third party. Any failure or delay in completing clinical trials or obtaining regulatory approval for MN-221 or MN-166 in a timely manner would have a material and adverse impact on MediciNova s business and its stock price.

Table of Contents

In order to commercialize a therapeutic drug successfully, a product candidate must receive regulatory approval after the successful completion of clinical trials, which are long, complex and costly, have a high risk of failure and can be delayed or terminated at any time.

MediciNova s product candidates are subject to extensive government regulations related to development, clinical trials, manufacturing and commercialization. The process of obtaining FDA and other regulatory approvals is costly, time-consuming, uncertain and subject to unanticipated delays. To receive regulatory approval for the commercial sale of any of its product candidates, MediciNova must conduct, at its own expense, adequate and well-controlled clinical trials in human patients to demonstrate the efficacy and safety of the product candidate. Clinical testing is expensive, takes many years and has an uncertain outcome. To date, MediciNova has obtained regulatory authorization to conduct clinical trials for eight of its product development programs. Investigational New Drug Applications, or INDs, were approved by the FDA and are active for seven of MediciNova s product candidates. MediciNova also has obtained one Clinical Trial Authorization, or CTA, for the ongoing Phase II clinical trial for MN-221 in Canada.

It may take years to complete the clinical development necessary to commercialize a drug, and delays or failure can occur at any stage, which may result in MediciNova s inability to market and sell any products derived from any of its product candidates that are ultimately approved by the FDA or foreign regulatory authorities. MediciNova s clinical trials may produce negative or inconclusive results, and MediciNova may decide, or regulators may require it, to conduct additional clinical and/or non-clinical testing. For example, in October 2007, MediciNova announced that its Phase II clinical trial of MN-305 for the treatment of insomnia failed to achieve statistical significance in its primary endpoint; as a result, MediciNova terminated development of MN-305 for the treatment of insomnia. Of the large number of drugs in development, only a small percentage result in the submission of an NDA to the FDA and even fewer are approved for commercialization. Interim results of clinical trials do not necessarily predict final results, and success in preclinical testing and early clinical trials does not ensure that later clinical trials will be successful. A number of companies in the pharmaceutical industry have suffered significant setbacks in advanced clinical trials even after promising results in earlier clinical trials. In addition, any delays in completing clinical trials or the rejection of data from a clinical trial by a regulatory authority will result in increased development costs and could have a material adverse effect on the development of the impacted product candidate.

In connection with the conduct of clinical trials for each of its product candidates, MediciNova faces many risks, including the risks that:

- the product candidate may not prove to be effective in treating the targeted indication;
- patients may die or suffer other adverse effects for reasons that may or may not be related to the product candidate being tested;
- the results may not confirm the positive results of earlier clinical trials;
- the FDA or other regulatory authorities may not agree with MediciNova s proposed development plans or accept the results of completed clinical trials; and
- MediciNova s planned clinical trials and the data collected from such clinical trials may be deemed by the FDA or other regulatory authorities not to be sufficient, which would require additional development for the product candidate before it can be evaluated in late stage clinical trials or before the FDA or other regulatory authorities will consider an application for marketing approval.

If MediciNova does not complete clinical development of its product candidates successfully, MediciNova will be unable to obtain regulatory approval to market products and generate revenues from such product candidates. MediciNova may also fail to obtain the necessary regulatory approvals if MediciNova has inadequate financial or other resources to advance its product candidates through the clinical trial process. In addition, even if MediciNova believes that the preclinical and clinical data are sufficient to support regulatory approval for a product candidate, the FDA and foreign regulatory authorities may not ultimately approve such product candidate

Table of Contents

for commercial sale in any jurisdiction, which would limit MediciNova s ability to generate revenues and adversely affect its business.

Delays in the commencement or completion of clinical trials, or suspension or termination of MediciNova s clinical trials, could result in increased costs to MediciNova and delay or limit its ability to obtain regulatory approval for its product candidates.

If MediciNova experiences delays in the commencement or completion of its clinical trials, MediciNova could incur significantly higher product development costs and its ability to obtain regulatory approvals for its product candidates could be delayed or limited. The commencement and completion of clinical trials requires MediciNova to identify and maintain a sufficient number of study sites and enroll a sufficient number of patients at such sites. MediciNova does not know whether enrollment in its ongoing and planned clinical trials for its product candidates will be completed on time, or whether its additional planned and ongoing clinical trials for its product candidates will be completed on schedule, if at all. For example, MediciNova recently has experienced delays in the enrollment of patients for its ongoing Phase II clinical trial evaluating the safety and efficacy of MN-221 in patients with severe, acute exacerbations of asthma due to changes in the dosing regimen. These delays extended the anticipated date for completion of enrollment by approximately two months.

The commencement and completion of clinical trials can be delayed for a variety of other reasons, including delays in:

- obtaining regulatory approval to commence or amend a clinical trial;
- reaching agreements on acceptable terms with prospective clinical research organizations, or CROs, and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- recruiting and enrolling patients to participate in clinical trials;
- retaining patients who have chosen to participate in a clinical trial but who may be prone to withdraw due to the treatment protocol, lack of efficacy, personal issues, or side effects from the therapy or who are lost to further follow-up;
- manufacturing sufficient quantities of a product candidate; and
- obtaining institutional review board, or IRB, approval or approval from foreign counterparts to conduct or amend a clinical trial at a clinical site.

In addition, a clinical trial may be delayed, suspended or terminated by MediciNova, the FDA or other regulatory authorities due to a number of factors, including:

- ongoing discussions with regulatory authorities regarding the scope or design of MediciNova s clinical trials or requests by them for supplemental information with respect to MediciNova s clinical trial results, which may result in the imposition of a clinical hold on the IND for any clinical trial, as well as the inability to resolve any outstanding concerns with the FDA so that a clinical hold already placed on the IND may be lifted and the clinical trial may begin;
- inspections of MediciNova s own clinical trial operations, the operations of its CROs, or its clinical trial sites by the FDA or other regulatory authorities, which may result in the imposition of a clinical hold or potentially prevent MediciNova from using some of the data generated from its clinical trials to support requests for regulatory approval of its product candidates;

MediciNova s failure or inability, or the failure or inability of its CROs, clinical trial site staff or other third party service providers involved in the clinical trial, to conduct clinical trials in accordance with regulatory requirements or its clinical protocols;

lower than anticipated enrollment or retention rates of patients in clinical trials;

Table of Contents

- new information suggesting unacceptable risk to subjects or unforeseen safety issues or any determination that a trial presents unacceptable health risks;

- insufficient supply or deficient quality of product candidates or other materials necessary for the conduct of MediciNova s clinical trials; and

- lack of adequate funding to continue the clinical trial, including the incurrence of unforeseen costs due to enrollment delays, requirements to conduct additional trials and studies and increased expenses associated with the services of MediciNova s CROs and other third parties.

If MediciNova experiences delays in the completion of its clinical trials for a product candidate, the commercial prospects for such product candidate may be harmed, MediciNova may incur increased costs for development of such product candidate, and its ability to obtain regulatory approval for such product candidate could be delayed or limited. Many of the factors that cause or lead to delays in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval for a product candidate. In addition, any amendment to a clinical trial protocol may require MediciNova to resubmit its clinical trial protocols to IRBs or their foreign counterparts for reexamination, which may delay or otherwise impact the costs, timing or successful completion of a clinical trial.

The loss of any rights to develop and commercialize any of MediciNova s product candidates could significantly harm its business.

MediciNova licenses the rights to develop and commercialize its product candidates. Currently, MediciNova has licensed rights relating to eight compounds for the development of ten product candidates.

MediciNova is obligated to develop and commercialize these product candidates in accordance with mutually agreed upon terms and conditions. MediciNova s ability to satisfy some or all of the terms and conditions of its license agreements is dependent on numerous factors, including some factors that are outside of its control. Any of its license agreements may be terminated if it breaches its obligations under the agreement materially and fails to cure any such breach within a specified period of time.

If any of MediciNova s license agreements is terminated, MediciNova would have no further rights to develop and commercialize the product candidate that is the subject of the license. The termination of the license agreements related to either of MediciNova s two prioritized product candidates would significantly and adversely affect its business. The termination of any of the remainder of its license agreements could also have a material adverse effect on its business.

If MediciNova s competitors develop and market products that are more effective than its product candidates, they may reduce or eliminate its commercial opportunities.

The biotechnology and pharmaceutical industries are subject to rapid and intense technological change. MediciNova faces, and will continue to face, competition from pharmaceutical and biotechnology companies, as well as numerous academic and research institutions and governmental agencies, in the United States and abroad. Some of these competitors have products or are pursuing the development of drugs that target the same diseases and conditions that are the focus of MediciNova s product development programs. There can be no assurance that developments by others will not render MediciNova s product candidates obsolete or noncompetitive. Many of MediciNova s competitors have products that have been approved or are in advanced development and may succeed in developing drugs that are more effective, safer and more affordable or more easily administered than MediciNova s, or that achieve patent protection or commercialization sooner than MediciNova s products. MediciNova s competitors may also develop alternative therapies that could further limit the market for any products for which MediciNova is able to obtain approval, if at all. In addition, new developments, including the development of other drug technologies and methods of preventing the incidence of disease, occur in the pharmaceutical industry at a rapid pace. These developments may render MediciNova s product candidates obsolete or noncompetitive.

Table of Contents

In many of MediciNova s target disease areas, potential competitors are working to develop new compounds with different mechanisms of action and attractive efficacy and safety profiles. Many of its competitors have substantially greater financial, research and development resources (including personnel and technology), clinical trial experience, manufacturing, sales and marketing capabilities and production facilities than MediciNova does. Smaller companies also may prove to be significant competitors, particularly through proprietary research discoveries and collaboration arrangements with large pharmaceutical and established biotechnology companies.

MediciNova s competitors may obtain regulatory approval of their products more rapidly than MediciNova is able to or may obtain patent protection or other intellectual property rights that limit MediciNova s ability to develop or commercialize its product candidates. MediciNova s competitors may also develop drugs that are more effective and less costly than MediciNova s and may also be more successful than MediciNova in manufacturing and marketing their products. MediciNova also expects to face similar competition in its efforts to identify appropriate collaborators or partners to help develop or commercialize its product candidates.

Negative conditions in the global credit markets may impair further the liquidity of MediciNova s investment portfolio.

At December 31, 2008, all of MediciNova s remaining marketable securities available-for-sale, which consisted of auction rate securities, or ARS, were designated as trading securities and were classified to long-term due to the time frame in which MediciNova can readily convert these securities into cash. These ARS represent 100 percent of MediciNova s overall investment portfolio. MediciNova s long-term asset consisted of the ARS Put (pursuant to the ARS Rights Offer described below). At September 30, 2009, approximately $21.3 million of its ARS and the ARS Put were reclassified to current assets because they can be readily converted to cash within twelve months. Of the approximately $2.5 million of ARS which continued to be classified as long-term assets as of September 30, 2009, approximately $2.2 million consisted of private placement investment securities. None of the underlying collateral for MediciNova s ARS consisted of subprime mortgages or collateralized debt obligations.

Due to continued negative conditions in the global credit markets, MediciNova s ARS have continued to fail at auction with few to no trades in either the primary or the secondary markets. As a result, MediciNova has been unable to liquidate its ARS that are not subject to the ARS Rights Offer, and it could be required to hold these securities until such time that they are redeemed by the issuer, successfully sold at auction, sold through a secondary market or ultimately mature. In addition, with the adoption of Accounting Standards Codification, or ASC, 820, authoritative guidance for fair value, measurements and disclosures (formerly Statement of Financial Accounting Standards, or SFAS, 157), MediciNova determined the fair value of its ARS portfolio primarily on Level 3 criteria, which resulted in its reliance on a discounted cash flow valuation model with assumptions related to interest rates, maturities and liquidity, determined by MediciNova based on the credit quality of the security, the credit quality of the associated insurer, if applicable, the respective prospectus and the credit market outlook. With all of MediciNova s investment securities designated as trading securities, any additional increase or decrease in the fair value of its investment securities is recorded as either a gain or an impairment charge, respectively, in its consolidated statement of operations. For the three months ended September 30, 2009, MediciNova recorded a net gain on its investment securities of approximately $0.4 million to increase the carrying value of its investment securities. In addition, for the three months ended September 30, 2009, MediciNova recorded an impairment charge of approximately $0.3 million on the ARS Put to decrease its carrying value based on MediciNova s discounted cash flow model with liquidity discount.

In August 2008, UBS AG and its affiliates, or UBS, the brokerage firm through which MediciNova purchased the majority of its ARS investments, entered into a settlement with the SEC, the New York Attorney General and other state agencies. Under the settlement, UBS issued to MediciNova Auction Rate Security Rights, which would allow MediciNova to sell to UBS its ARS held in accounts with UBS, or the ARS Rights Offer. Pursuant to the ARS Rights Offer, MediciNova received the right to sell to UBS the ARS held in accounts with UBS at par value at any time during the period beginning June 30, 2010 and ending July 2, 2012, or the ARS Put.

Table of Contents

As part of the settlement, UBS also offered to MediciNova a no net cost loan program, or ARS Loan, whereby MediciNova would be able to borrow up to 75 percent of the market value, as determined by UBS at its sole discretion, of MediciNova s ARS that have been pledged as collateral at an interest cost that would not exceed the interest being paid on the underlying ARS investments. In January 2009, MediciNova was approved for the ARS Loan in the amount of $15.9 million and drew down the entire preapproved amount. In addition, in February 2009, MediciNova borrowed an additional $2.2 million under the ARS Loan, bringing the total amount outstanding under the ARS Loan to $18.1 million, following UBS decision to increase MediciNova s availability under the ARS Loan. All cash received under the ARS Loan was invested in money market accounts. At September 30, 2009, MediciNova s ARS Loan balance was $17.7 million.

UBS may demand full or partial payment of the ARS Loan, at its sole option and without cause, at any time. All ARS Loan advances are subject to collateral maintenance requirements. UBS may also, at any time, in its discretion, terminate and cancel the ARS Loan. If at any time UBS exercises its right to terminate the credit line agreement governing the ARS Loan, then UBS is required to provide, as soon as reasonably possible, alternative financing on substantially the same terms and conditions as those under the credit line agreement and the agreement will remain in full force and effect until such time as such alternative financing has been established. MediciNova cannot assure you that it will not default on its obligations under the credit line agreement, which could result in the acceleration of its repayment obligations, or that UBS will not call the amounts outstanding under the ARS Loan, either of which would negatively impact MediciNova s financial condition and cash flow. In addition, MediciNova cannot assure you that UBS will consummate the ARS Rights Offer and repurchase its ARS subject to such offer at par value, or that MediciNova will be able to renew this facility at maturity on similar terms, or at all.

If MediciNova fails to obtain the capital necessary to fund its operations, MediciNova will be unable to develop and commercialize its product candidates.

MediciNova has consumed substantial amounts of capital since its inception. From its inception to September 30, 2009, MediciNova had an accumulated deficit of approximately $241.4 million. MediciNova s cash, cash equivalents, investment securities and ARS Put, net of the ARS Loan, totaled approximately $37.2 million at September 30, 2009. MediciNova intends to manage its product development programs such that its existing cash, cash equivalents and investment securities as of September 30, 2009 will be sufficient to meet its operating requirements through at least June 30, 2010. MediciNova has based this estimate on assumptions that may prove to be wrong, and MediciNova could spend its available financial resources faster than MediciNova currently anticipates. MediciNova s future capital requirements will depend on, and could increase significantly as a result of, many factors, including:

- progress in, and the costs of, its ongoing and planned clinical trials and other research and development activities;
- the scope, prioritization and number of its product development programs;
- its obligations under its license agreements, pursuant to which it may be required to make future milestone payments upon the achievement of various milestones related to clinical, regulatory or commercial events;
- its ability to establish and maintain strategic collaborations, including licensing and other arrangements;
- the time and costs involved in obtaining regulatory approvals;
- the costs of securing manufacturing arrangements for clinical or commercial production of its product candidates;
- the costs associated with expanding its management, personnel, systems and facilities;
- the costs associated with any litigation;

38

Table of Contents

the costs associated with the operations or wind-down of any business it may acquire;

the costs involved in filing, prosecuting, enforcing and defending patent claims and other intellectual property rights; and

the costs of establishing or contracting for sales and marketing capabilities and commercialization activities if it obtains regulatory approval to market its product candidates.

Until MediciNova can generate significant continuing revenues, it expects to satisfy its future cash needs through strategic collaborations, private or public sales of its securities, debt financings or licensing transactions, involving all or a portion of its product candidates, to the extent MediciNova is able to do so. MediciNova may not be successful in obtaining strategic collaboration agreements or in receiving milestone or royalty payments under such agreements. MediciNova cannot be certain that additional sources of capital will be available to it on acceptable terms, or at all. If sources of capital are not available, MediciNova may not be in a position to pursue present or future business opportunities that require financial commitments, and MediciNova may be required to terminate, delay or reduce the scope of one or more of its product development programs; delay establishing sales and marketing capabilities or other activities to commercialize a product candidate; curtail its efforts to acquire new product candidates; or relinquish some or even all rights to its product candidates.

The terms under which MediciNova raises additional capital may harm its business and may significantly dilute stockholders ownership interests.

If MediciNova raises additional funds through collaborations or licensing arrangements with third parties, it may need to relinquish some rights to its product candidates, including commercialization rights, which may harm its ability to generate revenues and achieve or sustain profitability. If MediciNova raises additional funds by issuing equity securities, stockholders may experience substantial dilution. Debt financing, if available, may involve significant cash payment obligations and restrictive covenants and other financial terms that may impede its ability to operate its business. Any debt financing or additional equity that MediciNova raises may contain terms that are not favorable to MediciNova or its stockholders.

MediciNova will depend on strategic collaborations with third parties to develop and commercialize selected product candidates and will not have control over a number of key elements relating to the development and commercialization of these product candidates if it is able to achieve such third-party arrangements.

A key aspect of MediciNova s strategy is to seek collaborations with partners, such as large pharmaceutical companies, that are willing to conduct later-stage clinical trials and further develop and commercialize selected product candidates. Following completion of the Phase II clinical trial for MN-166 for the treatment of MS in the second quarter of 2008, MediciNova has not undertaken, nor does it plan to undertake, any further significant clinical development activities for any of its product candidates other than MN-221 for the treatment of acute exacerbations of asthma and COPD exacerbations, other than those activities deemed necessary to maintain its license rights or maximize each product candidate s value, until such time that it is successful in entering into a partnership or collaboration to further development of such product candidates. To date, MediciNova has not entered into any such collaborative arrangements, and MediciNova may not be able to enter into any collaborations or partnerships on acceptable terms, if at all.

By entering into a strategic collaboration with a partner, MediciNova may rely on the partner for financial resources and for development, regulatory and commercialization expertise. Even if MediciNova is successful in entering into a strategic collaboration for one of its product candidates, its partner may fail to develop or effectively commercialize the product candidate because such partner:

does not have sufficient resources or decides not to devote the necessary resources due to internal constraints such as limited cash or human resources;

Table of Contents

decides to pursue a competitive potential product developed outside of the collaboration;

cannot obtain the necessary regulatory approvals;

determines that the market opportunity is not attractive; or

cannot manufacture the necessary materials in sufficient quantities from multiple sources or at a reasonable cost.

MediciNova also faces competition in its search for partners from other biotechnology and pharmaceutical companies worldwide, many of whom are larger and able to offer more attractive deals in terms of financial commitments, contribution of human resources, or development, manufacturing, regulatory or commercial expertise and support.

If MediciNova is not successful in attracting partners and entering into collaborations on acceptable terms for these product candidates, it may not be able to complete development of or obtain regulatory approval for such product candidates. In such event, MediciNova s ability to generate revenues from such products and achieve or sustain profitability would be significantly hindered.

MediciNova is subject to stringent regulation of its product candidates, which could delay the development and commercialization of its product candidates.

MediciNova, its third-party manufacturers, service providers, suppliers and partners, and its product candidates are subject to stringent regulation by the FDA and other regulatory agencies in the United States and by comparable authorities in other countries. None of MediciNova s product candidates can be marketed in the United States until it has been approved by the FDA. None of its product candidates has been approved by the FDA to date, and MediciNova may never receive FDA approval for any of its product candidates. Obtaining FDA approval for a product takes many years of clinical development and requires substantial resources. Additionally, changes in regulatory requirements and guidance may occur or new information regarding the product candidate or the target indication may emerge, and MediciNova may need to perform additional, unanticipated non-clinical or clinical testing of its product candidates or amend clinical trial protocols to reflect these changes. Any additional unanticipated testing would add costs and could delay or result in the denial of regulatory approval for a product candidate. These regulatory requirements may limit the size of the market for the product or result in the incurrence of additional costs. Any delay or failure in obtaining required approvals could substantially reduce or negate MediciNova s ability to generate revenues from the particular product candidate.

In addition, both before and after regulatory approval, MediciNova, its partners and its product candidates are subject to numerous FDA requirements, including requirements related to testing, manufacturing, quality control, labeling, advertising, promotion, distribution and export. The FDA s requirements may change and additional government regulations may be promulgated that could affect MediciNova, its partners and its product candidates. Given the number of recent high profile adverse safety events with certain drug products, the FDA may require, as a condition of approval, costly risk management programs, which may include safety surveillance, restricted distribution and use, patient education, enhanced labeling, special packaging or labeling, expedited reporting of certain adverse events, preapproval of promotional materials and restrictions on direct-to-consumer advertising. Furthermore, heightened Congressional scrutiny on the adequacy of the FDA s drug approval process and the agency s efforts to assure the safety of marketed drugs has resulted in the enactment of new legislation addressing drug safety issues, the Food and Drug Administration Amendments Act of 2007. This legislation provides the FDA with expanded authority over drug products after approval and the FDA s exercise of this authority could result in delays or increased costs during the period of product development, clinical trials and regulatory review and approval and increased costs to assure compliance with new post-approval regulatory requirements. Furthermore, MediciNova cannot predict the likelihood, nature or extent of government regulation that may arise from this or future legislation or administrative action, either in the United States or abroad.

Table of Contents

In order to market any of its products outside of the United States, MediciNova and its strategic partners and licensees must establish and comply with numerous and varying regulatory requirements of other countries regarding safety and efficacy. Approval procedures vary among countries and can involve additional product testing and additional administrative review periods beyond the requirements of the FDA and the time required to obtain approval in other countries might differ from that required to obtain FDA approval. The regulatory approval process in other countries may include all of the risks detailed above regarding FDA approval in the United States. Regulatory approval in one country, including FDA approval in the United States, does not ensure regulatory approval in another. In addition, a failure or delay in obtaining regulatory approval in one country may negatively impact the regulatory process in others. A product candidate may not be approved for all indications that MediciNova requests, which would limit the uses of MediciNova s product and adversely impact MediciNova s potential royalties and product sales, and any approval that MediciNova receives may be subject to limitations on the indicated uses for which the product may be marketed or require costly, post-marketing follow-up studies.

If MediciNova fails to comply with applicable regulatory requirements in the United States or other countries, MediciNova may be subject to regulatory and other consequences, including fines and other civil penalties, delays in approving or failure to approve a product, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions, interruption of manufacturing or clinical trials, injunctions and criminal prosecution, any of which would harm its business.

MediciNova relies on third parties to assist it with its clinical trials and other important aspects of its product development programs, and MediciNova may incur additional development costs, experience delays in the commencement and completion of clinical trials, and be unable to obtain regulatory approval for or commercialize its product candidates on its anticipated timeline if these third parties do not successfully carry out their contractual duties or meet expected deadlines.

MediciNova relies extensively on CROs, medical institutions, clinical investigators, contract laboratories and other service providers to perform important functions related to the conduct of its clinical trials, the collection and analysis of data and the preparation of regulatory submissions. Although MediciNova designs and manages its current clinical trials to ensure that each clinical trial is conducted in accordance with its investigational plan and protocol, MediciNova does not have the ability to conduct all aspects of its clinical trials directly for its product candidates.

The FDA requires MediciNova and its CROs to comply with regulations and standards, commonly referred to as good clinical practices, or GCPs, for conducting, monitoring, recording and reporting the results of clinical trials to ensure that the data and results are scientifically credible and accurate and that the trial subjects are adequately informed of the potential risks of participating in clinical trials. MediciNova s reliance on CROs does not relieve it of these responsibilities and requirements. The CROs, clinical investigators and other service providers that MediciNova employs in the conduct of its clinical trials are not its employees, and MediciNova cannot control the amount or timing of resources that they devote to its product development programs. If these third parties fail to devote sufficient care, time and resources to its product development programs, if their performance is substandard, or if they are inspected by the FDA and found not to be in compliance with GCPs, it will delay the completion of the clinical trial in which they are involved and the progress of the affected development program. The CROs with which MediciNova contracts for execution of its clinical trials play a significant role in the conduct of the clinical trials and the subsequent collection and analysis of data. Any failure of the CROs to meet their obligations could adversely affect clinical development of MediciNova s product candidates. Moreover, the CROs, clinical investigators and other service providers may have relationships with other commercial entities, some of which may have competitive products under development or currently marketed, and MediciNova s competitive position could be harmed if they assist its competitors. If any of these third parties do not successfully carry out their contractual duties or obligations or meet expected deadlines, if the performance of any of these third parties is substandard, or if the quality or accuracy of the clinical data is compromised for any reason, MediciNova s clinical trials may be extended, delayed or terminated, and

Table of Contents

MediciNova may not be able to obtain regulatory approval for its product candidates. In addition, while MediciNova believes that there are numerous alternative sources to provide these services, it might not be able to enter into replacement arrangements without delays or additional expenditures if it were to seek such alternative sources.

MediciNova relies on third-party manufacturers to produce its product candidates, which may result in delays in its clinical trials and the commercialization of products, as well as increased costs.

MediciNova has no manufacturing facilities, and MediciNova does not intend to develop facilities for the manufacture of its product candidates for clinical trials or commercial purposes in the foreseeable future. MediciNova contracts with third-party manufacturers to produce, in collaboration with MediciNova, sufficient quantities of its product candidates for clinical trials, and MediciNova plans to contract with third-party manufacturers to produce sufficient quantities of any product candidates approved by the FDA or other regulatory authorities for commercial sale. While MediciNova believes that there are competitive sources available to manufacture its product candidates, it may not be able to enter into arrangements without delays or additional expenditures. MediciNova cannot estimate these delays or costs with certainty.

Reliance on third-party manufacturers limits MediciNova s ability to control certain aspects of the manufacturing process and therefore exposes MediciNova to a variety of significant risks, including risks related to its ability to commercialize any products approved by regulatory authorities or conduct clinical trials, reliance on such third parties for regulatory compliance and quality assurance, and the refusal or inability of a third-party manufacturer to supply MediciNova s requirements on a long-term basis. In addition, manufacturers of pharmaceutical products often encounter difficulties in production, particularly in scaling up initial production. These problems include difficulties with production costs and yields, quality control, including stability of the product candidate and quality assurance testing, shortages of qualified personnel and compliance with federal, state and foreign regulations. Also, MediciNova s manufacturers may not perform as agreed. If MediciNova s manufacturers were to encounter any of these difficulties, its ability to timely produce its product candidates for clinical trials and commercial sale may be interrupted, which could result in delayed clinical trials or receipt of regulatory approval and lost or delayed revenues.

To date, MediciNova has entered into an agreement with Hospira Worldwide, Inc., or Hospira, for the development and supply of finished product of MN-221 utilizing Hospira s proprietary ADD-Vantage drug delivery system that MediciNova intends to use in clinical trials and the commercial market. In addition to Hospira s proprietary drug delivery system, MediciNova anticipates entering into a commercial supply agreement for finished product of MN-221 in standard vials. However, other than Hospira, MediciNova does not have agreements established regarding commercial supply of finished product of MN-221 in standard vials or for the active pharmaceutical ingredient, or API, or finished product for any of its product candidates. In particular, pursuant to its license agreement with Kissei Pharmaceutical Co. Ltd., or Kissei Pharmaceutical, Kissei Pharmaceutical has the exclusive right to manufacture the commercial supply of the API for MN-221. Therefore, MediciNova will need to successfully negotiate a commercial supply agreement with Kissei Pharmaceutical on commercially reasonable terms, or another third-party manufacturer in the event that MediciNova is unable to reach agreement with Kissei Pharmaceutical, in order to manufacture the API for MN-221 on a commercial scale if MN-221 is approved by the FDA or other regulatory authorities for commercial sale. MediciNova will also need to successfully negotiate a supply agreement with a third-party manufacturer on commercially reasonable terms in order to manufacture the finished product of MN-221 in standard vials. MediciNova may not be able to establish or maintain any commercial manufacturing and supply arrangements on commercially reasonable terms that MediciNova requires for purposes of commercializing a product. Any failure by MediciNova to secure or maintain any such required commercial supply agreements could result in interruption of supply and lost or delayed revenues, which would adversely affect MediciNova s business.

Any problems or delays MediciNova experiences in preparing for commercial-scale manufacturing of a product candidate may result in a delay in FDA or other regulatory approval of the product candidate or may

Table of Contents

impair its ability to manufacture commercial quantities, which would adversely affect its business. For example, its manufacturers will need to produce specific batches of a product candidate to demonstrate acceptable stability under various conditions and for commercially viable lengths of time. MediciNova and its third-party manufacturers will need to demonstrate to the FDA and other regulatory authorities this acceptable stability data for the product candidate, as well as validate methods and manufacturing processes, in order to receive regulatory approval to commercialize such product candidate.

MediciNova s manufacturers are obligated to operate in accordance with FDA-mandated current good manufacturing practices, or cGMPs, and, in some cases, International Convention on Harmonization, or ICH, standards. A failure of any of MediciNova s third-party manufacturers to establish and follow cGMPs and/or ICH standards and to document their adherence to such practices may lead to significant delays in its ability to timely conduct and complete clinical trials, obtain regulatory approval of product candidates or launch of its products into the market. In addition, changing third-party manufacturers is difficult. For example, a change in third-party manufacturer for a particular product candidate requires re-validation of the manufacturing processes and procedures in accordance with cGMPs, which may be costly and time-consuming and, in some cases, MediciNova s manufacturers may not provide it with adequate assistance to transfer the manufacturing processes and procedures for its product candidates to new manufacturers or may possess intellectual property rights covering parts of these processes or procedures for which MediciNova may need to obtain a license. Failure by MediciNova s third-party manufacturers or MediciNova to comply with applicable regulations could result in sanctions being imposed on MediciNova, including fines, injunctions, civil penalties, delays, suspension or withdrawal of regulatory approvals, seizures or recalls of products, operating restrictions and criminal prosecutions.

MediciNova may not be able to manufacture its product candidates in commercial quantities, which would prevent it from commercializing its product candidates.

To date, MediciNova s product candidates have been manufactured in small quantities for preclinical studies and clinical trials. If any of its product candidates is approved by the FDA or comparable regulatory authorities in other countries for commercial sale, MediciNova will need to manufacture such product candidate in larger quantities. MediciNova may not be able to increase successfully the manufacturing capacity for any of its product candidates in a timely or economic manner, or at all. Significant scale-up of manufacturing may require additional validation studies, which the FDA must review and approve. If MediciNova is unable to increase successfully the manufacturing capacity for a product candidate, the regulatory approval or commercial launch of that product candidate may be delayed or there may be a shortage in supply. MediciNova s product candidates require precise, high quality manufacturing. MediciNova s failure to achieve and maintain these high manufacturing standards in collaboration with its third-party manufacturers, including the incidence of manufacturing errors, could result in patient injury or death, product recalls or withdrawals, delays or failures in product testing or delivery, cost overruns or other problems that could harm its business, financial condition and results of operations.

Materials necessary to manufacture MediciNova s product candidates may not be available on commercially reasonable terms, or at all, which may delay the development and commercialization of its product candidates.

MediciNova relies on the third-party manufacturers of its product candidates to purchase from third-party suppliers the materials necessary to produce the API and finished product for its clinical trials, and MediciNova will rely on such manufacturers to purchase such materials to produce the API and finished product for any commercial distribution of its products if MediciNova obtains marketing approval. Suppliers may not sell these materials to MediciNova s manufacturers at the time they need them in order to meet its required delivery schedule or on commercially reasonable terms, if at all. MediciNova does not have any control over the process or timing of the acquisition of these materials by its manufacturers. Moreover, MediciNova currently does not have any agreements for the production of these materials. If MediciNova s manufacturers are unable to obtain

Table of Contents

these materials for its clinical trials, testing of the affected product candidate would be delayed, which may significantly impact its ability to develop the product candidate. If MediciNova or its manufacturers are unable to purchase these materials after regulatory approval has been obtained for one of MediciNova s products, the commercial launch of such product would be delayed or there would be a shortage in supply of such product, which would harm its ability to generate revenues from such product and achieve or sustain profitability.

Even if MediciNova s product candidates receive regulatory approval, they may still face future development and regulatory difficulties.

Even if U.S. regulatory approval is obtained, the FDA may still impose significant restrictions on a product s indicated uses or marketing or impose ongoing requirements for potentially costly post-approval studies, including additional research and development and clinical trials. Any of these restrictions or requirements could adversely affect MediciNova s potential product revenues. For example, the label ultimately approved for MN-221 or MN-166, MediciNova s other product candidates or any other product candidates that MediciNova may in-license or acquire, if any, may include a restriction on the term of its use, or it may not include one or more of MediciNova s intended indications.

MediciNova s product candidates will also be subject to ongoing FDA requirements for the labeling, packaging, storage, advertising, promotion, record-keeping and submission of safety and other post-market information on the drug. In addition, approved products, manufacturers and manufacturers facilities are subject to continual review and periodic inspections. If a regulatory agency discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency or problems with the facility where the product is manufactured, a regulatory agency may impose restrictions on that product or MediciNova, including requiring withdrawal of the product from the market. If MediciNova s product candidates fail to comply with applicable regulatory requirements, such as cGMPs, a regulatory agency may:

- issue warning letters or untitled letters;
- require MediciNova to enter into a consent decree, which can include imposition of various fines, reimbursements for inspection costs, required due dates for specific actions and penalties for noncompliance;
- impose other civil or criminal penalties;
- suspend regulatory approval;
- suspend any ongoing clinical trials;
- refuse to approve pending applications or supplements to approved applications filed by MediciNova;
- impose restrictions on operations, including costly new manufacturing requirements; or
- seize or detain products or require a product recall.

MediciNova s product candidates, if approved for sale, may not gain acceptance among physicians, patients and the medical community, thereby limiting MediciNova s potential to generate revenues.

If one of MediciNova s product candidates is approved for commercial sale by the FDA or foreign regulatory authorities, the degree of market acceptance of any approved product by physicians, healthcare professionals and third-party payors and MediciNova s profitability and growth will depend on a number of factors, including:

demonstration of efficacy;

changes in the standard of care for the targeted indication;

relative convenience and ease of administration;

the prevalence and severity of any adverse side effects;

Table of Contents

availability, cost and potential advantages of alternative treatments, including less expensive generic drugs;

pricing and cost effectiveness, which may be subject to regulatory control;

effectiveness of MediciNova s or any of its partners sales and marketing strategies;

the product labeling or product insert required by the FDA or regulatory authority in other countries; and

the availability of adequate third-party insurance coverage or reimbursement.

If any product candidate that MediciNova develops does not provide a treatment regimen that is as beneficial as, or is perceived as being as beneficial as, the current standard of care or otherwise does not provide patient benefit, that product candidate, if approved for commercial sale by the FDA or other regulatory authorities, likely will not achieve market acceptance. MediciNova s ability to effectively promote and sell any approved products will also depend on pricing and cost-effectiveness, including its ability to produce a product at a competitive price and its ability to obtain sufficient third-party coverage or reimbursement. If any product candidate is approved but does not achieve an adequate level of acceptance by physicians, patients and third-party payors, MediciNova s ability to generate revenues from that product would be substantially reduced. In addition, its efforts to educate the medical community and third-party payors on the benefits of its product candidates may require significant resources and may never be successful.

If MediciNova s products are not accepted by the market or if users of its products are unable to obtain adequate coverage of and reimbursement for its products from government and other third-party payors, its revenues and profitability will suffer.

MediciNova s ability to commercialize its products successfully will depend in significant part on pricing and cost effectiveness, including its ability to produce a product at a competitive price and its ability to obtain appropriate coverage of and reimbursement for its products and related treatments are obtained from governmental authorities, private health insurers and other organizations, such as health maintenance organizations, or HMOs. Third-party payors are increasingly challenging the prices charged for medical products and services. MediciNova cannot provide any assurances that third-party payors will consider its products cost-effective or provide coverage of and reimbursement for its products, in whole or in part.

Uncertainty exists as to the coverage and reimbursement status of newly approved medical products and services and newly approved indications for existing products. Third-party payors may conclude that MediciNova s products are less safe, less clinically effective or less cost-effective than existing products, and third-party payors may not approve its products for coverage and reimbursement. If MediciNova is unable to obtain adequate coverage of and reimbursement for its products from third-party payors, physicians may limit how much or under what circumstances they will prescribe or administer them. Such reduction or limitation in the use of MediciNova s products could cause its sales to suffer. Even if third-party payors make reimbursement available, payment levels may not be sufficient to make the sale of MediciNova s products profitable.

Also, the trend towards managed health care in the United States and the concurrent growth of organizations such as HMOs, which could control or significantly influence the purchase of medical services and products, may result in inadequate coverage of and reimbursement for MediciNova s products. Many third-party payors, including HMOs, are pursuing various ways to reduce pharmaceutical costs, including the use of formularies. The market for MediciNova s products depends on access to such formularies, which are lists of medications for which third-party payors provide reimbursement. These formularies are increasingly restricted, and pharmaceutical companies face significant competition in their efforts to place their products on formularies of HMOs and other third-party payors. This increased competition has led to a downward pricing pressure in the industry. The cost containment measures that third-party payors are instituting could have a material adverse effect on MediciNova s ability to operate profitably.

Table of Contents

If MediciNova fails to identify and license or acquire other product candidates, it will not be able to expand its business over the long term.

Because MediciNova does not have internal discovery capabilities, its business over the long term is substantially dependent on its ability to license or acquire product candidates and further develop them for commercialization. The success of this strategy depends upon its ability to identify, select and acquire the right product candidates. MediciNova has limited experience identifying, negotiating and implementing economically viable product candidate acquisitions or licenses, which is a lengthy and complex process. Also, the market for licensing and acquiring product candidates is intensely competitive, and many of MediciNova s competitors have greater resources than MediciNova does. MediciNova may not have the requisite capital resources to consummate product candidate acquisitions or licenses that it identifies to fulfill its strategy.

Moreover, product candidate acquisitions that MediciNova does complete involve numerous risks, including:

- difficulties in integrating the development program for the acquired product candidate into its existing operations;
- diversion of financial and management resources from existing operations;
- risks of entering new markets or technologies and of receiving regulatory approval;
- inability to generate sufficient revenues to offset acquisition costs; and
- delays that may result from its having to perform unanticipated preclinical studies or other tests on the product candidate.

If MediciNova is not successful in identifying and licensing or acquiring other product candidates over the long term, MediciNova will not be able to grow its revenues with sales from new products beyond those revenues, if any, from any approved products derived from its existing product candidates, and MediciNova may fail to achieve or sustain profitability.

MediciNova is dependent on its management team, particularly Yuichi Iwaki, M.D., Ph.D., and if MediciNova is unable to attract, retain and motivate Dr. Iwaki and other key management and scientific staff, its product development programs may be delayed and MediciNova may be unable to develop successfully or commercialize its product candidates.

MediciNova is dependent upon the continued services of its executive officers and other key personnel, particularly Yuichi Iwaki, M.D., Ph.D., a founder of the company and its President and Chief Executive Officer, who has been instrumental in its ability to in-license product candidates from Japanese pharmaceutical companies and secure financing from Japanese institutions. The relationships that Dr. Iwaki has cultivated with pharmaceutical companies from whom MediciNova licenses product candidates and to whom MediciNova expects to out-license product candidates make MediciNova particularly dependent upon his continued employment with MediciNova. MediciNova is also substantially dependent on the continued services of its existing clinical development personnel because of the highly technical nature of its product development programs. MediciNova is not presently aware of any plans of its executive officers or key personnel to retire or leave employment with the company. Each of our executive officers is party to an employment agreement that continues in effect until the earliest of termination of employment upon (i) consent of the parties, (ii) cause or other material breach of the agreement, (iii) death or permanent disability and (iv) three months written notice. See Compensation Discussion and Analysis Summary of Potential Payments upon Termination or Change in Control Employment Agreements. Following termination of employment, these individuals may engage in other businesses that may compete with MediciNova.

If MediciNova acquires or licenses new product candidates, its success will depend on its ability to attract, retain and motivate highly qualified management and scientific personnel to manage the development of these

Table of Contents

new product candidates. In particular, MediciNova s product development programs depend on its ability to attract and retain highly experienced clinical development and regulatory personnel. MediciNova has not experienced difficulties attracting and retaining key personnel. However, MediciNova faces competition for experienced scientists and other technical and professional personnel from numerous companies and academic and other research institutions. Competition for qualified personnel is particularly intense in the San Diego, California area, where its corporate headquarters is located. MediciNova s short operating history and the uncertainties attendant to being a development-stage biopharmaceutical company could impair its ability to attract and retain personnel and impede the achievement of its development and commercialization objectives. In addition, MediciNova has scientific and clinical advisors who assist it in its product development and clinical strategies. These third parties are not MediciNova s employees and may have commitments to, or contracts with, other entities that may limit their availability to MediciNova, or may have arrangements with other companies to assist in the development of products that may compete with MediciNova s product candidates.

Although MediciNova has employment agreements with key members of management, each of its employees, subject to applicable notice requirements, may terminate his or her employment at any time. MediciNova does not carry key person insurance covering members of senior management. If MediciNova loses any of its key management personnel, it may not be able to find suitable replacements, which would adversely affect its business.

If MediciNova is unable to establish its sales and distribution capabilities, it will be unable to successfully commercialize its product candidates.

To date, MediciNova has not sold, marketed or distributed any pharmaceutical products. If MediciNova is successful in obtaining regulatory approvals for any of its product candidates or acquiring other approved products, MediciNova will need to establish sales, marketing and distribution capabilities on its own or with partners in order to commercialize an approved product. The acquisition or development of an effective sales and marketing infrastructure will require a significant amount of its financial resources and time and could negatively impact its commercialization efforts, including delay of a product launch. MediciNova may be unable to establish and manage a sufficient or effective sales force in a timely or cost-effective manner, if at all, and any sales force it does establish may not be capable of generating demand for its products, therefore hindering its ability to generate revenues and achieve or sustain profitability. In addition, if MediciNova is unable to develop internal sales capabilities, it will need to contract with third parties or establish a partnership to market and sell the product. If it is unable to establish adequate sales and marketing capabilities, whether independently or with third parties, it may not be able to generate any product revenues, may generate increased expenses and may never become profitable. In addition, although MediciNova intends to establish strategic collaborations to market any products approved for sale by regulatory authorities outside of the United States, it may be required to market its product candidates outside of the United States directly if it is unable to establish such collaborations. In that event, MediciNova may need to build a corresponding international sales and marketing capability with technical expertise and with supporting distribution capabilities.

MediciNova may need to change its business practices to comply with health care fraud and abuse regulations, and its failure to comply with such laws could adversely affect its business, financial condition and results of operations.

If MediciNova markets one or more of its product candidates, its operations will be directly, or indirectly through its customers, subject to various state and federal fraud and abuse laws, including, the federal Medicare and Medicaid Protection Act of 1987, as amended, or the Anti-Kickback Statute, and the False Claims Act, as amended. These laws may impact any proposed sales, marketing and education programs as well as other aspects of MediciNova s operations.

The federal Anti-Kickback Statute prohibits persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in exchange for or to induce either the referral of an

Table of Contents

individual, or the furnishing or arranging for a good or service, for which payment may be made under a federal healthcare program such as the Medicare and Medicaid programs. Several courts have interpreted the statute s intent requirement to mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered business, the statute has been violated. The Anti-Kickback Statute is broad and prohibits many arrangements and practices that are lawful in businesses outside of the healthcare industry. Recognizing that the Anti-Kickback Statute is broad and may technically prohibit many innocuous or beneficial arrangements, Congress authorized the U.S. Department of Health and Human Services, Office of Inspector General, or OIG, to issue a series of regulations, known as the safe harbors in certain instances to shield healthcare providers and other parties from prosecution under the Anti-Kickback Statute in certain instances. However, conduct and business arrangements that do not fully satisfy each applicable safe harbor may result in increased scrutiny by government enforcement authorities such as the OIG. Many states have also adopted laws similar to the federal Anti-Kickback Statute, some of which apply to the referral of patients for healthcare items or services reimbursed by any source, not only the Medicare and Medicaid programs.

The federal False Claims Act prohibits persons from knowingly filing or causing to be filed a false claim to, or the knowing use of false statements to obtain payment from, the federal government. Suits filed under the False Claims Act can be brought by any individual on behalf of the government and such individuals may share in any amounts paid by the entity to the government in fines or settlement. The frequency of filing of such actions has increased significantly in recent years, causing greater numbers of healthcare companies to have to defend a False Claims Act action. Various states have also enacted laws modeled after the federal False Claims Act.

In addition to the laws described above, the Health Insurance Portability and Accountability Act of 1996, as amended, created two new federal crimes: healthcare fraud and false statements relating to healthcare matters. The healthcare fraud statute prohibits knowingly and willfully executing a scheme to defraud any healthcare benefit program, including private payors. A violation of this statute is a felony and may result in fines, imprisonment or exclusion from government-sponsored programs. The false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services.

If MediciNova s operations are found to be in violation of any of the laws described above and other applicable state and federal fraud and abuse laws, MediciNova may be subject to penalties, including civil and criminal penalties, damages, fines, exclusion from government healthcare programs, imprisonment and the curtailment or restructuring of its operations.

Health care reform measures could adversely affect MediciNova s business.

The business and financial condition of pharmaceutical and biotechnology companies are affected by the efforts of governmental and third-party payers to contain or reduce the costs of health care. In the United States and in foreign jurisdictions, there have been, and MediciNova expects that there will continue to be, a number of legislative and regulatory proposals aimed at changing the health care system. For example, in some countries, pricing of prescription drugs is subject to government control, and MediciNova expects proposals to implement similar controls in the United States to continue. Another example of proposed reform that could affect MediciNova s business is the current discussion of drug reimportation into the United States. In 2000, Congress directed the FDA to adopt regulations allowing the reimportation of approved drugs originally manufactured in the United States back into the United States from other countries where the drugs were sold at lower prices. Although the Secretary of Health and Human Services has refused to implement this directive, the House of Representatives passed a similar bill that does not require the Secretary of Health and Human Services to act in July 2003. The reimportation bills have not yet resulted in any new laws or regulations; however, these and other initiatives could decrease the price MediciNova or any potential collaborators receive for its product candidates if and when they are approved for sale, adversely affecting MediciNova s future revenue growth and potential

Table of Contents

profitability. Moreover, the pendency or approval of such proposals could result in a decrease in MediciNova s stock price or its ability to raise capital or to obtain strategic partnerships or licenses.

MediciNova may be sued for product liability, which could result in substantial liabilities that exceed its available resources and damage its reputation.

The development and commercialization of drug products entails significant product liability risks. Product liability claims may arise from use of any of MediciNova s product candidates in clinical trials and the commercial sale of any approved products. If MediciNova cannot successfully defend itself against these claims, it will incur substantial liabilities. Regardless of merit or eventual outcome, product liability claims may result in:

withdrawal of clinical trial participants;

termination of clinical trial sites or entire clinical trial programs;

decreased demand for MediciNova s product candidates;

impairment of MediciNova s business reputation;

costs of related litigation;

substantial monetary awards to patients or other claimants;

loss of revenues; and

the inability to commercialize MediciNova s product candidates.

MediciNova currently has insurance that covers its clinical trials. MediciNova believes its current insurance coverage is reasonably adequate at this time; however, its insurance coverage may not reimburse it or may not be sufficient to reimburse it for all expenses or losses it may suffer. In addition, MediciNova will need to increase and expand this coverage as it commences additional clinical trials, as well as larger scale clinical trials, and in the event that any of its product candidates is approved for commercial sale. This insurance may be prohibitively expensive or may not fully cover its potential liabilities. In addition, its inability to obtain sufficient insurance coverage at an acceptable cost or otherwise to protect against potential product liability claims could prevent or inhibit the regulatory approval or commercialization of products that MediciNova or one of its collaborators develop. Successful product liability claims could have a material adverse effect on its business and results of operations. Liability from such claims could exceed its total assets if MediciNova does not prevail in any lawsuit brought by a third party alleging that an injury was caused by one of its product candidates.

MediciNova will need to increase the size of its organization, and it may encounter difficulties managing its growth, which could adversely affect its results of operations.

As of November 12, 2009, MediciNova had 22 full-time employees and two part-time employees. MediciNova will need to continue to expand its managerial, operational, financial and other resources in order to manage and fund its operations and clinical trials, continue its development activities and commercialize its product candidates. MediciNova s management, personnel, systems and facilities currently in place may not be adequate to support this future growth. For example, MediciNova may hire additional personnel in clinical development, regulatory affairs and business development to further strengthen its core competencies or choose to develop sales, marketing and distribution capabilities for certain of its product candidates. MediciNova s need to effectively manage its operations, growth and product development programs requires that it:

manages its clinical trials effectively;

manages its internal development efforts effectively while carrying out its contractual obligations to licensors and other third parties;

ensures that its consultants, CROs and other service providers successfully carry out their contractual obligations, provide high quality results and meet expected deadlines; and

Table of Contents

continues to improve its operational, financial and management controls, reporting systems and procedures.

MediciNova may be unable to successfully implement these tasks on a larger scale, which may impact its ability to timely achieve its development and commercialization goals, if at all.

MediciNova expects that its results of operations will fluctuate, which may make it difficult to predict its future performance from period to period.

MediciNova s quarterly operating results have fluctuated in the past and are likely to continue to do so in the future. Some of the factors that could cause its operating results to fluctuate from period to period include:

the status of development of its product candidates and, in particular, the advancement or termination of activities related to its product development programs and the timing of any milestone payments payable under its licensing agreements;

the execution of other collaboration, licensing and similar arrangements and the timing of payments MediciNova may make or receive under these arrangements;

variations in the level of expenses related to its product development programs;

the unpredictable effects of collaborations during these periods;

the timing of its satisfaction of applicable regulatory requirements, if at all;

the rate of expansion of its clinical development and other internal research and development efforts;

the costs of any litigation;

the effect of competing technologies and products and market developments; and

general and industry-specific economic conditions.

MediciNova believes that quarterly or yearly comparisons of its financial results are not necessarily meaningful and should not be relied upon as indications of its future performance.

MediciNova s management has broad discretion over the use of its cash, and it may not use its cash effectively, which could adversely affect its results of operations.

MediciNova s management has significant flexibility in applying its cash resources and could use these resources for corporate purposes that do not increase its market value or in ways with which its stockholders may not agree. MediciNova may use its cash resources for corporate purposes that do not yield a significant return or any return at all for its stockholders, which may cause its stock price to decline.

MediciNova will continue to incur significant increased costs as a result of operating as a public company, and its management will be required to devote substantial time to new compliance initiatives.

As a public company, MediciNova is required to comply with the Sarbanes-Oxley Act of 2002, as amended, or the Sarbanes-Oxley Act, as well as rules and regulations implemented by the SEC, Nasdaq, and the Osaka Securities Exchange, or OSE, and incur significant legal, accounting and other expenses as a result. These rules impose various requirements on public companies, including requiring the establishment and maintenance of effective disclosure and financial controls and appropriate corporate governance practices. MediciNova s management and other personnel have devoted and will continue to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations increase its legal and financial compliance costs and may make it more difficult and expensive for MediciNova to renew its director and officer liability insurance, and result in imposition of reduced policy limits and coverage.

Table of Contents

The Sarbanes-Oxley Act requires that MediciNova maintains effective internal controls for financial reporting and disclosure controls and procedures. As a result, MediciNova is required to perform an evaluation of its internal control over financial reporting to allow management to report on the effectiveness of those controls, as required by Section 404 of the Sarbanes-Oxley Act. MediciNova s efforts to comply with Section 404 and related regulations have required, and continue to require, the commitment of significant financial and managerial resources. While MediciNova anticipates maintaining the integrity of its internal control over financial reporting and all other aspects of Section 404 applicable to it, MediciNova cannot be certain that a material weakness will not be identified when it tests the effectiveness of its control systems in the future. If a material weakness is identified, MediciNova could be subject to sanctions or investigations by Nasdaq, the SEC, the OSE or other regulatory authorities, which would require additional financial and management resources, costly litigation or a loss of public confidence in its internal controls, which could have an adverse effect on the market price of its stock. In addition, as a smaller reporting company, its report regarding internal control over financial reporting for the year ended December 31, 2008 was not subject to attestation by its registered public accounting firm pursuant to temporary SEC rules.

MediciNova s business and operations would suffer in the event of system failures.

Despite the implementation of security measures, MediciNova s internal computer systems are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. Any system failure, accident or security breach that causes interruptions in its operations could result in a material disruption of its drug development programs, including delays in its regulatory approval efforts and significantly increase its costs to recover or reproduce the data. To the extent that any disruption or security breach results in a loss or damage to its data or applications, or inappropriate disclosure of confidential or proprietary information, MediciNova may incur liability and the further development of its product candidates may be delayed.

Risks Related to MediciNova s Intellectual Property

MediciNova s ability to compete may decline if it does not adequately protect its proprietary rights.

There is the risk that MediciNova s patents (both those owned by MediciNova and those in-licensed) may not provide a competitive advantage, including the risk that its patents expire before it obtains regulatory and marketing approval for one or more of its product candidates, particularly its in-licensed patents. Also, MediciNova s competitors may develop products similar to MediciNova s using methods and technologies that are beyond the scope of MediciNova s intellectual property rights. Composition of matter patents on APIs may provide protection for pharmaceutical products without regard to formulation, method of use, or other type of limitation. MediciNova does not have compound patent protection for the API in its MN-166 and MN-001 product candidates, although MediciNova does have patent protection for a particular crystalline polymorph of MN-001. As a result, competitors that obtain the requisite regulatory approval will be able to offer products with the same API as found in MediciNova s MN-166 and MN-001 product candidates so long as such competitors do not infringe any methods of use, methods of manufacture, formulation or, in the case of MN-001, specific polymorph patents that MediciNova holds or has exclusive rights to through its licensors. For example, MediciNova currently relies on a method of use patent for MN-166, which covers the use of the API found in its MN-166 product candidate for the treatment of MS.

It is MediciNova s policy to consult with its licensors in the maintenance of granted patents it has licensed and in their pursuit of patent applications that it has licensed, but each of its licensors generally remains primarily responsible for or in control of the maintenance of the granted patents and prosecution of the applications. MediciNova has limited control, if any, over the amount or timing of resources that each licensor devotes on MediciNova s behalf, and a licensor may not assign as great a priority to prosecution of these patent applications as MediciNova would if it were undertaking such prosecution itself. As a result of this lack of control and general

Table of Contents

uncertainties in the patent prosecution process, MediciNova cannot be sure that its licensed patents will be maintained and that any additional patents will ever mature from its licensed applications. Issued U.S. patents require the payment of maintenance fees to continue to be in force. MediciNova typically relies on its licensors to do this and their failure to do so could result in the forfeiture of patents not timely maintained. Many foreign patent offices also require the payment of periodic annuities to keep patents and patent applications in good standing. As MediciNova generally does not maintain control over the payment of annuities, it cannot be certain that its licensors will timely pay such annuities and that the granted patents and pending patent applications will not become abandoned. For example, certain annuities were not paid in a timely manner with respect to foreign patents licensed under MN-002 (the active metabolite of MN-001). In addition, MediciNova s licensors may have selected a limited amount of foreign patent protection, and therefore applications have not been filed in, and foreign patents may not have been perfected in, all commercially significant countries.

The patent protection of MediciNova s product candidates and technology involves complex legal and factual questions. Most of its license agreements give it a right, but not an obligation, to enforce its patent rights. To the extent it is necessary or advantageous for any of its licensors cooperation in the enforcement of its patent rights, MediciNova cannot control the amount or timing of resources its licensors devote on its behalf or the priority they place on enforcing its patent rights. MediciNova may not be able to protect its intellectual property rights against third party infringement, which may be difficult to detect, especially for infringement of patent claims for methods of manufacturing. Additionally, challenges may be made to the ownership of its intellectual property rights, its ability to enforce them or its underlying licenses, which in some cases have been made under foreign laws and may provide different protections than that of U.S. law.

MediciNova cannot be certain that any of the patents or patent applications owned by MediciNova or its licensors related to its product candidates and technology will provide adequate protection from competing products. MediciNova s success will depend, in part, on whether MediciNova or its licensors can:

- obtain and maintain patents to protect its product candidates;
- obtain and maintain any required or desirable licenses to use certain technologies of third parties, which may be protected by patents;
- protect its trade secrets and know-how;
- operate without infringing the intellectual property and proprietary rights of others;
- enforce the issued patents under which MediciNova holds rights; and
- develop additional proprietary technologies that are patentable.

The degree of future protection for its proprietary rights is uncertain. For example:

- MediciNova or its licensor might not have been the first to make the inventions covered by each of MediciNova s pending patent applications or issued patents;
- MediciNova or its licensor might not have been the first to file patent applications for these inventions;
- others may independently develop similar or alternative technologies or duplicate any of MediciNova s technologies;

it is possible that none of MediciNova s pending patent applications will result in issued patents;

any patents under which MediciNova holds rights may not provide it with a basis for maintaining market exclusivity for commercially viable products, may not provide it with any competitive advantages or may be challenged by third parties as invalid, not infringed or unenforceable under U.S. or foreign laws; or

any of the issued patents under which MediciNova holds rights may not be valid or enforceable or may be circumvented successfully in light of the continuing evolution of domestic and foreign patent laws.

Table of Contents

Confidentiality agreements with employees and others may not adequately prevent disclosure of MediciNova s trade secrets and other proprietary information and may not adequately protect its intellectual property, which could limit its ability to compete.

Because MediciNova operates in the highly technical field of research and development of small molecule drugs, it relies in part on trade secret protection in order to protect its proprietary trade secrets and unpatented know-how. However, trade secrets are difficult to protect, and MediciNova cannot be certain that others will not develop the same or similar technologies on their own. MediciNova has taken steps, including entering into confidentiality agreements with its employees, consultants, outside scientific collaborators, sponsored researchers and other advisors, to protect its trade secrets and unpatented know-how. These agreements generally require that the other party keep confidential and not disclose to third parties all confidential information developed by the party or made known to the party by MediciNova during the course of the party s relationship with MediciNova. MediciNova also typically obtains agreements from these parties which provide that inventions conceived by the party in the course of rendering services to MediciNova will be MediciNova s exclusive property. However, these agreements may not be honored and may not effectively assign intellectual property rights to MediciNova. Further, MediciNova has limited control, if any, over the protection of trade secrets developed by its licensors. Enforcing a claim that a party illegally obtained and is using MediciNova s trade secrets or know-how is difficult, expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets or know-how. The failure to obtain or maintain trade secret protection could adversely affect MediciNova s competitive position.

A dispute concerning the infringement or misappropriation of MediciNova s proprietary rights or the proprietary rights of others could be time consuming and costly, and an unfavorable outcome could harm its business.

There is significant litigation in MediciNova s industry regarding patent and other intellectual property rights. While MediciNova is not currently subject to any pending intellectual property litigation, and is not aware of any such threatened litigation, it may be exposed to future litigation by third parties based on claims that its product candidates, their methods of use, manufacturing or other technologies or activities infringe the intellectual property rights of such third parties. There are many patents relating to chemical compounds and methods of use. If MediciNova s compounds or their methods of use or manufacture are found to infringe any such patents, it may have to pay significant damages or seek licenses under such patents. MediciNova has not conducted comprehensive searches for unexpired patents issued to third parties relating to its product candidates. Consequently, no assurance can be given that unexpired, third-party patents containing claims covering its product candidates, their methods of use or manufacture do not exist. Moreover, because some patent applications in the United States may be maintained in secrecy until the patents are issued, and because patent applications in the United States and many foreign jurisdictions are typically not published until 18 months after filing, MediciNova cannot be certain that others have not filed patent applications that will mature into issued patents that relate to its current or future product candidates and which could have a material effect in developing and commercializing one or more of its product candidates. The owner of a patent that is arguably infringed can bring a civil action seeking to enjoin an accused infringer from importing, making, marketing, distributing, using or selling an infringing product. MediciNova may need to resort to litigation to enforce its intellectual property rights or to seek a declaratory judgment concerning the scope, validity or enforceability of third-party proprietary rights. Similarly, MediciNova may be subject to claims that it has inappropriately used or disclosed trade secrets or other proprietary information of third parties. If MediciNova becomes involved in litigation, it could consume a substantial portion of its managerial and financial resources, regardless of whether it wins or loses. Some of its competitors may be able to sustain the costs of complex intellectual property litigation more effectively than MediciNova can because they have substantially greater resources. MediciNova may not be able to afford the costs of litigation. Any legal action against MediciNova or its collaborators could lead to:

- payment of actual damages, royalties, lost profits, potential enhanced damages and attorneys fees, if a case against MediciNova is determined by a judge to be exceptional;

Table of Contents

injunctive or other equitable relief that may effectively block its ability to further develop, commercialize and sell its products;

having to enter into license arrangements that may not be available on reasonable or commercially acceptable terms; or

significant cost and expense, as well as distraction of MediciNova s management from its business.

As a result, MediciNova could lose its ability to develop and commercialize current or future product candidates.

MediciNova may be subject to claims that its employees have wrongfully used or disclosed alleged trade secrets of their former employers.

As is common in the biotechnology and pharmaceutical industries, MediciNova employs individuals who were previously employed at other biotechnology or pharmaceutical companies, including its competitors or potential competitors. Although no claims against MediciNova are currently pending, MediciNova may be subject to claims that these employees or MediciNova has inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. Even if MediciNova is successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Risks Related to the Securities Markets and Investment in MediciNova Common Stock

MediciNova s stock price may be volatile, and you may not be able to resell its shares at a profit or at all.

Despite the listing of MediciNova common stock on Nasdaq and the Hercules Market of the OSE in Japan, trading volume in its securities has been light and an active trading market may not develop for its common stock. In September 2009, its average trading volume was approximately 8,400 shares per day on Nasdaq and approximately 45,900 shares per day on the Hercules Market of the OSE.

The market prices for securities of biopharmaceutical and biotechnology companies, and early-stage drug discovery and development companies like MediciNova in particular, have historically been highly volatile and may continue to be highly volatile in the future. For example, since the date of MediciNova s initial public offering in Japan on February 4, 2005 through the date of this joint proxy statement/prospectus, its common stock has traded on Nasdaq as high as approximately $42.00 and as low as approximately $1.50 per share. The following factors, in addition to other risk factors described in this section, may have a significant impact on the market price of MediciNova common stock:

the development status of its product candidates, including clinical trial results and determinations by regulatory authorities with respect to its product candidates, and particularly its prioritized product candidates;

the initiation, termination, or reduction in the scope of any collaboration arrangements or any disputes or developments regarding such collaborations;

FDA or foreign regulatory actions, including failure to receive regulatory approval for any of its product candidates;

announcements of technological innovations, new commercial products or other material events by MediciNova or its competitors;

disputes or other developments concerning its intellectual property rights;

market conditions in the pharmaceutical and biotechnology sectors or the economy as a whole;

54

Table of Contents

- actual and anticipated fluctuations in its quarterly or annual operating results;
- price and volume fluctuations in the overall stock markets;
- any potential delisting of its securities;
- termination of the Merger Agreement;
- changes in, or failure to meet, securities analysts or investors expectations of its financial performance;
- additions or departures of key personnel;
- discussions of its business, management, products, financial performance, prospects or stock price by the financial and scientific press and online investor communities;
- litigation or public concern about the safety of its potential products;
- public concern as to, and legislative action with respect to, the pricing and availability of prescription drugs or the safety of drugs and drug delivery techniques; or
- regulatory developments in the United States and in foreign countries.

Broad market and industry factors, as well as economic and political factors, also may materially adversely affect the market price of its common stock.

MediciNova may become involved in securities class action litigation that could divert management s attention and harm its business.

The stock markets have from time to time experienced significant price and volume fluctuations that have affected the market prices for the common stock of biotechnology and biopharmaceutical companies. These broad market fluctuations may cause the market price of MediciNova common stock to decline. In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for MediciNova because biotechnology and biopharmaceutical companies have experienced significant stock price volatility in recent years. MediciNova may become involved in this type of litigation in the future. Litigation often is expensive and diverts management s attention and resources, which could adversely affect MediciNova s business.

Future sales of MediciNova common stock may cause its stock price to decline and may make it difficult to sell your shares.

On September 19, 2005, MediciNova filed a Registration Statement on Form S-1 to register 6,733,536 shares of common stock for resale from time to time, which registration statement was subsequently declared effective by the SEC. The registered shares were beneficially owned by 47 holders. On November 23, 2005, it filed a Registration Statement on Form S-1 to register 1,335,657 shares of common stock issuable upon the exercise of warrants held by three parties, of which warrants held by its two founders that related to 1,285,657 shares were exercisable at $1.00 per share and a warrant held by a separate investor that related to 50,000 shares was exercisable at $10.00 per share. All of the warrants held by MediciNova s founders have been exercised, and the warrant held by the separate investor of 50,000 shares expired in May 2009. All of such shares, other than shares held by MediciNova s affiliates, may also be sold from time to time in exempt transactions pursuant to Rule 144 promulgated by the SEC. If the holders of such shares, to the extent such shares have not been sold already, were to attempt immediately to sell their shares, there would be significant downward pressure on MediciNova s stock price and it may be difficult, or even impossible, to find a buyer for shares of its common stock.

MediciNova has also registered all common stock that it may issue under its current employee benefits plans. As a result, these shares can be freely sold in the public market upon issuance, subject to the terms of the underlying agreements governing the grants and the restrictions of the securities laws. In addition, its directors and officers may in the future establish programmed selling plans under Rule 10b5-1 of the Exchange Act, for

Table of Contents

the purpose of effecting sales of its common stock. If any of these events cause a large number of its shares to be sold in the public market, the sales could reduce the trading price of its common stock and impede its ability to raise future capital.

In addition, MediciNova is not restricted from issuing additional common stock or other equity securities, including any securities that are convertible into or exchangeable for, or that represent the right to receive, common stock or preferred stock or any substantially similar securities. The market price of MediciNova s common stock could decline as a result of sales of a large number of shares of newly issued common stock or other equity securities in the market or the perception that such sales could occur.

MediciNova s stockholder rights plan and anti-takeover provisions in its charter documents and under Delaware law may make an acquisition of MediciNova more complicated and the removal and replacement of its directors and management more difficult.

MediciNova s restated certificate of incorporation and amended and restated bylaws contain provisions that may delay or prevent a change in control, discourage bids at a premium over the market price of its common stock or adversely affect the market price of its common stock and the voting and other rights of the holders of its common stock. These provisions may also make it difficult for stockholders to remove and replace MediciNova s board of directors and management. These provisions:

- establish that members of the board of directors may be removed only for cause upon the affirmative vote of stockholders owning at least a majority of MediciNova s capital stock;
- authorize the issuance of blank check preferred stock that could be issued by MediciNova s board of directors in a discriminatory fashion designed to increase the number of outstanding shares and prevent or delay a takeover attempt;
- limit who may call a special meeting of stockholders;
- establish advance notice requirements for nominations for election to the board of directors or for proposing matters that can be acted upon at stockholder meetings;
- prohibit MediciNova stockholders from making certain changes to its restated certificate of incorporation or amended and restated bylaws except with 66 2/3 percent stockholder approval; and
- provide for a classified board of directors with staggered terms.

Effective November 24, 2006, MediciNova s board of directors adopted a stockholder rights plan. On March 30, 2007, its stockholders ratified the plan at its annual meeting of stockholders. Under the plan, MediciNova declared a dividend distribution of one right for each outstanding share of its common stock to stockholders of record at the close of business on December 11, 2006. Since that time, MediciNova has issued one right with each newly issued share of common stock. Each right, when exercisable, entitles the holder to purchase from MediciNova one one-thousandth (1/1,000) of a share of MediciNova s Series A Preferred Stock at a purchase price of $77.00, subject to adjustment. In general, under the plan, if a person or affiliated group acquires beneficial ownership of 20 percent or more of its shares of common stock, then each right (other than those held by such acquiring person or affiliated group) will entitle the holder to receive, upon exercise, shares of common stock (or, under certain circumstances, a combination of securities or other assets) having a value of twice the underlying purchase price of the right. In addition, if following the announcement of the existence of an acquiring person or affiliated group MediciNova is involved in a business combination or sale of 50 percent or more of its assets or earning power, each right (other than those held by the acquiring person or affiliated group) will entitle the holder to receive, upon exercise, shares of common stock of the acquiring entity having a value of twice the underlying purchase price of the right. The board of directors also has the right, after an acquiring person or affiliated group is identified, to cause each right to be exchanged for common stock or substitute consideration. MediciNova may redeem the rights at a price of $0.001 per right prior to the identification of an acquiring person or affiliated group. The rights expire on November 23, 2016.

56

Table of Contents

MediciNova also may be subject to provisions of the Delaware corporation law that, in general, prohibit any business combination with a beneficial owner of 15 percent or more of MediciNova common stock for three years unless the holder s acquisition of its stock was approved in advance by its board of directors. Although MediciNova believes these provisions collectively provide for an opportunity to receive higher bids by requiring potential acquirers to negotiate with its board of directors, they would apply even if the offer may be considered beneficial by some stockholders. In any event, these provisions may delay or prevent a third party from acquiring MediciNova. Any such delay or prevention could cause the market price of its common stock to decline.

MediciNova has never paid dividends on its capital stock, and MediciNova does not anticipate paying any cash dividends in the foreseeable future.

MediciNova has paid no cash dividends on any of its classes of capital stock to date, and MediciNova currently intends to retain its future earnings, if any, to fund the development and growth of its business. MediciNova does not anticipate paying any cash dividends on its common stock in the foreseeable future. As a result, capital appreciation, if any, of its common stock will be your sole source of gain for the foreseeable future.

Risks Related to Avigen s Business

Avigen has been in the process of pursuing a monetization of its AV411 product which, if the Merger does not occur, it may not be able to do on terms it believes it should be able to obtain for this product

Avigen has been pursuing the sale of its AV411 product in the event that it is not able to complete the proposed merger. Avigen believes that this product has substantial value, but given the current economic climate, Avigen may not be able to find a buyer that is willing to pay what it believes is the fair value for AV411. If Avigen is not able to obtain significant value for the sale of AV411, it will not be able to return to its stockholders the value that it believes it should be able to obtain for AV411.

Avigen is in the process of pursuing a monetization of its rights under its Genzyme agreement, which it may not be able to do on terms it believes it should be able to obtain

Avigen is pursuing discussions with Genzyme to have Genzyme purchase from Avigen the rights under its existing agreement with Genzyme, and is seeking in the alternative to sell these rights to another party. Avigen believes that these rights have substantial value, but Avigen may not be able to find a buyer that is willing to pay what Avigen believes is the fair value for these rights, and Genzyme may not be willing to purchase these rights for the value that Avigen believes they are worth. If Avigen is not able to monetize these rights or obtain value for these rights in on the terms that Avigen believes they are worth in the event that it is not able to complete the proposed Merger, Avigen will not be able to return to its stockholders the value that Avigen believes it should be able to obtain for these rights.

Avigen will incur costs as it pursues the completion of the proposed Merger or possible dissolution of Avigen, which may be more than Avigen expects, which could result in a return to Avigen stockholders of less than Avigen expects

Avigen will continue to incur operating costs as it pursues the completion of the proposed Merger or, if the Merger is not completed, dissolution of the company. Avigen is being very frugal with respect to the costs it is incurring, but Avigen will need to continue to incur costs of operations. Avigen has incurred costs in negotiations with MediciNova regarding the proposed Merger and will continue to incur substantial costs in seeking stockholder approval. If the proposed Merger is not completed and, as a result, Avigen pursues a dissolution, it would need to solicit stockholder approval of such a dissolution, which would take time and Avigen would incur costs in such a solicitation. If these costs are more than Avigen expects, it will decrease the amount that Avigen believes it would be able to return to its stockholders.

Table of Contents

Other persons may assert rights to Avigen s proprietary technology, which could be costly to contest or settle

Third parties may assert patent or other intellectual property infringement claims against Avigen with respect to its products, technologies or other matters. Any claims against Avigen, with or without merit, as well as claims initiated by Avigen against third parties, can be time-consuming and expensive to defend or prosecute and resolve. There may be third-party patents and other intellectual property relevant to Avigen s products and technology which are not known to Avigen. Avigen has not been accused of infringing any third party s patent rights or other intellectual property, but Avigen cannot assure you that litigation asserting claims will not be initiated, that Avigen would prevail in any litigation, or that Avigen would be able to obtain any necessary licenses on reasonable terms, if at all. If Avigen s competitors prepare and file patent applications in the United States that claim technology also claimed by Avigen, Avigen may have to participate in interference proceedings declared by the Patent and Trademark Office to determine priority of invention, which could result in substantial cost to Avigen, even if the outcome is favorable to Avigen. In addition, to the extent outside collaborators apply technological information developed independently by them or by others to Avigen s product development programs or apply Avigen s technologies to other projects, disputes may arise as to the ownership of proprietary rights to these technologies.

Risks Related to the Combined Company

If the combined company is not able to successfully secure a strategic collaboration to advance the conformed ibudilast development programs, the benefits of the Merger may be significantly diminished.

Following completion of the Phase II clinical trial of MN-166 for the treatment of MS in the second quarter of 2008, MediciNova has not undertaken, nor does it plan to undertake, any further significant clinical development of MN-166 until such time that it secures a strategic collaboration to advance the clinical development of MN-166. Following completion of the Merger, MediciNova does not intend to undertake any significant clinical development of AV411 beyond the ongoing opioid withdrawal clinical trial. Rather, MediciNova intends to integrate the two ibudilast development programs and pursue discussions with potential partners to secure a strategic collaboration to advance the clinical development of the combined development programs. MediciNova and Avigen cannot assure you that MediciNova will be able to secure such a strategic collaboration or otherwise further advance, or recognize value from, the MN-166 and AV411 clinical development programs. In the event that such a strategic collaboration is not achieved, the benefits of the Merger may be significantly diminished unless MediciNova otherwise recommences clinical trials for the combined companies product candidate based on ibudilast in one or more indications. If the combined company is unable to realize the strategic and financial benefits anticipated from the Merger, MediciNova stockholders may experience substantial dilution of their ownership interest in connection with the Merger without receiving any commensurate benefit.

The combined company will incur losses for the foreseeable future and might never achieve profitability.

The combined company may never become profitable, even if the combined company is able to complete clinical development for one or more product candidates and eventually commercialize such product candidates. The combined company will need to successfully complete significant research, development, testing and regulatory compliance activities that, together with projected general and administrative expenses, is expected to result in substantial increased operating losses for at least the next several years. Even if the combined company does achieve profitability, it may not be able to sustain or increase profitability on a quarterly or annual basis.

The combined company s stock price is expected to be volatile, and the market price of its common stock may drop following the Merger.

The market price of the combined company s common stock could be subject to significant fluctuations following the Merger. Market prices for securities of early-stage pharmaceutical, biotechnology and other life

Table of Contents

sciences companies have historically been particularly volatile. Some of the factors that may cause the price of the combined company s common stock to fluctuate include:

- the development status of the combined company s product candidates, including clinical trial results and determinations by regulatory authorities with respect to the product candidates, and particularly the combined company s prioritized product candidates;
- the entry into, or termination of, key agreements, including key collaboration agreements, or any disputes or developments regarding such collaborations;
- the ability to secure partners for MediciNova s product candidates, including the combined company s product candidate based on ibudilast;
- the initiation of, material developments in, or conclusion of litigation to enforce or defend any of the combined company s intellectual property rights;
- FDA or foreign regulatory actions, including failure to receive regulatory approval for any of the combined company s product candidates;
- regulatory developments in the United States and in foreign countries;
- disputes or other developments concerning intellectual property rights;
- additions or departures of key employees;
- general and industry-specific economic conditions that may affect the combined company s research and development expenditures;
- the results of clinical trials conducted by others on drugs that would compete with the combined company s product candidates;
- the introduction of technological innovations or new commercial products by competitors of the combined company;
- changes in estimates or recommendations by securities analysts, if any, who cover the combined company s common stock; and
- period-to-period fluctuations in the combined company s financial results.

Moreover, the stock markets in general have experienced substantial volatility that has often been unrelated to the operating performance of individual companies. These broad market fluctuations may also adversely affect the price of the combined company s common stock.

MediciNova does not expect the combined company to pay cash dividends, and accordingly, stockholders must rely on stock appreciation for any return on their investment in the combined company.

MediciNova anticipates that the combined company will retain its future earnings, if any, for its operations and therefore does not anticipate paying cash dividends in the future. As a result, only appreciation of the price of the combined company s common stock will provide a return to stockholders. Investors seeking cash dividends should not invest in the combined company s common stock.

The pro forma financial statements are presented for illustrative purposes only and may not be an indication of the combined company s financial condition or results of operations following the completion of the Merger.

The pro forma financial statements contained in this joint proxy statement/prospectus are presented for illustrative purposes only and may not be an indication of the combined company s financial condition or results of operations following the Merger for several reasons. The pro forma financial statements have been derived from the historical financial statements of MediciNova and Avigen and adjustments and assumptions have been

Table of Contents

made regarding the combined company after giving effect to the transaction. The information upon which these adjustments and assumptions have been made is preliminary, and these kinds of adjustments and assumptions are difficult to make with accuracy. Moreover, the pro forma financial statements do not reflect all costs that are expected to be incurred by the combined company in connection with the Merger. For example, the impact of any incremental costs incurred in integrating the two companies is not reflected in the pro forma financial statements. As a result, the actual financial condition of the combined company following the Merger may not be consistent with, or evident from, these pro forma financial statements. The assumptions used in preparing the pro forma financial information may not prove to be accurate, and other factors may affect the combined company s financial condition following the transaction. See Unaudited Pro Forma Condensed Combined Financial Statements beginning on page 221 of this joint proxy statement/prospectus.

Even if the combined company s drug candidates are successful in clinical trials, the combined company may not be able to successfully commercialize them, which may adversely affect the combined company s future revenues and financial condition.

MediciNova has dedicated substantially all of its resources to the research and development of its product candidates. At present, MediciNova is focusing its resources on two prioritized product candidates, MN-166 for the treatment of MS and MN-221 for the treatment of acute exacerbations of asthma and COPD exacerbations, while strategically conducting development activities on the remainder of its existing product candidates to the extent that any further activities are deemed necessary to maintain license rights or maximize their value for purposes of monetizing such product candidates on appropriate terms. All of MediciNova s product candidates currently are in the clinical development stage, and none have been submitted for marketing approval. The combined company may not develop any product candidates suitable for commercialization.

Prior to commercialization, each product candidate will require significant additional research, development and preclinical testing and extensive clinical investigation before submission of any regulatory application for marketing approval. Potential products that appear to be promising at early stages of development may not reach the market for a number of reasons, including that they may:

- be found ineffective or cause harmful side effects during clinical trials;
- fail to receive necessary regulatory approvals;
- be difficult to manufacture on a large scale;
- be uneconomical to produce;
- fail to achieve market acceptance; or
- be precluded from commercialization by proprietary rights of third parties.

The combined company s product development efforts or the combined company s collaborative partners efforts may not be successfully completed for any product candidate, and the combined company may not obtain any required regulatory approvals or successfully commercialize a product candidate even if clinical development for such product candidate is successfully completed. Any products, if introduced, may not be successfully marketed nor achieve customer acceptance, which may adversely affect the combined company s future revenues and financial condition.

If the combined company fails to establish and maintain collaborations, the combined company may be unable to develop and commercialize its product candidates, which may adversely affect the combined company s future revenues and financial condition.

Through strategic alliances, primarily with Japanese pharmaceutical companies, MediciNova holds rights to a diversified portfolio of clinical and preclinical product candidates and has acquired licenses to eight compounds for the development of ten product candidates. A key aspect of MediciNova s strategy is to seek collaborations

60

Table of Contents

with partners, such as large pharmaceutical companies, that are willing to conduct later-stage clinical trials and further develop and commercialize selected product candidates. Given MediciNova s focus on its two prioritized product candidates and its decision to not undertake any further significant clinical development activities for any of its product candidates other than MN-221 for the treatment of acute exacerbations of asthma and COPD exacerbations, collaborations will be necessary in order to further development of such product candidates, including the combined company s product candidate based on ibudilast. To date, MediciNova has not entered into any such collaborative arrangements, and the combined company may not be able to enter into any collaborations on acceptable terms, if at all. If the combined company fails to maintain the existing license agreements held by MediciNova or fails to enter into collaborative arrangements, future clinical development and potential commercialization of its product candidates may be impeded.

The combined company s dependence on collaborative arrangements with third parties will subject it to a number of risks that could harm the combined company s ability to develop and commercialize products, including the risks that:

- collaborative arrangements might not be on terms favorable to the combined company;
- disagreements with partners may result in delays in the development of products, termination of collaboration agreements or time consuming and expensive legal action;
- the combined company cannot control the amount and timing of resources partners devote to product candidates or their prioritization of product candidates;
- partners may not allocate sufficient funds or resources to the development of the combined company s products, or may not perform their obligations as expected;
- partners may choose to develop, independently or with other companies, alternative products or treatments, including products or treatments which compete with the combined company s products or treatments;
- agreements with partners may expire or be terminated without renewal, or partners may breach collaboration agreements with the combined company;
- business combinations or significant changes in a partner s business strategy might adversely affect that partner s willingness or ability to complete its obligations to the combined company; and
- the terms and conditions of the relevant agreements may no longer be suitable.

If the combined company is not successful in attracting partners and entering into collaborations on acceptable terms for its product candidates, the combined company may not be able to complete development of or obtain regulatory approval for such product candidates. In such event, the combined company s ability to generate revenues from such products and achieve or sustain profitability would be significantly hindered.

If the combined company s competitors develop and market products that are more effective than its product candidates, they may reduce or eliminate its commercial opportunities.

The biotechnology and pharmaceutical industries are subject to rapid and intense technological change. The combined company will faces competition from pharmaceutical and biotechnology companies, as well as numerous academic and research institutions and governmental agencies, in the United States and abroad. Some of these competitors have products or are pursuing the development of drugs that target the same diseases and conditions that will be the focus of the combined company s product development programs. There can be no assurance that developments by others will not render the combined company s product candidates obsolete or noncompetitive. Many of the combined

company s competitors have products that have been approved or are in advanced development and may succeed in developing drugs that are more effective, safer and more affordable or more easily administered than the combined company s product candidates, or that achieve patent protection or commercialization sooner than combined company s product candidates. The combined company s

Table of Contents

competitors may also develop alternative therapies that could further limit the market for any products that the combined company is able to obtain approval for, if at all. In addition, new developments, including the development of other drug technologies and methods of preventing the incidence of disease, occur in the pharmaceutical industry at a rapid pace. These developments may render the combined company s product candidates obsolete or noncompetitive.

In the combined company s target disease areas, potential competitors are working to develop new compounds with different mechanisms of action and attractive efficacy and safety profiles. Many of its competitors have substantially greater financial, research and development resources (including personnel and technology), clinical trial experience, manufacturing, sales and marketing capabilities and production facilities than the combined company. Smaller companies also may prove to be significant competitors, particularly through proprietary research discoveries and collaboration arrangements with large pharmaceutical and established biotechnology companies.

The combined company s competitors may obtain regulatory approval of their products more rapidly than the combined company is able to or may obtain patent protection or other intellectual property rights that limit the combined company s ability to develop or commercialize its product candidates. The combined company s competitors may also develop drugs that are more effective and less costly than the combined company s and may also be more successful than the combined company in manufacturing and marketing their products. The combined company also expects to face similar competition in its efforts to identify appropriate collaborators or partners to help develop or commercialize its product candidates.

If any of the events described in Risks Related to the Merger, Risks Related to MediciNova s Business and Industry, Risks Related to MediciNova s Intellectual Property, Risks Related to the Securities Markets and Investment in MediciNova Common Stock, and Risks Related to Avigen s Business occur, those events could cause the potential benefits of the Merger not to be realized.

Following the effective time of the Merger, the combined company will be susceptible to many of the risks described in the sections herein entitled Risks Related to the Merger, Risks Related to MediciNova s Business and Industry, Risks Related to MediciNova s Intellectual Property Risks Related to the Securities Markets and Investment in MediciNova Common Stock, and Risks Related to Avigen s Business. To the extent any of the events in the risks described in those sections occur, those events could cause the potential benefits of the Merger not to be realized and the market price of the combined company s common stock to decline.

Table of Contents

FORWARD-LOOKING STATEMENTS

This joint proxy statement/prospectus contains forward-looking statements that involve a number of risks and uncertainties, many of which are beyond the control of MediciNova and Avigen. Forward-looking statements discuss matters that are not historical facts. Forward-looking statements include discussions regarding the anticipated benefits of the Merger, value and benefits to stockholders from the Merger, operating strategy, industry and economic conditions, market factors, financial condition, liquidity and capital resources, results of operations, expected progress of the development of the companies product candidates, licensing, collaboration and partnering plans, anticipated trends and challenges in MediciNova s and Avigen s businesses and the markets in which they operate, intellectual property protection, critical accounting policies and the impact of recent accounting pronouncements.

Actual results may differ from those anticipated or expressed in these forward-looking statements as a result of various factors, including those set forth in the Risk Factors section of this joint proxy statement/prospectus and the differences may be material. The potential risks and uncertainties include:

- difficulties securing a strategic collaboration to advance the combined company s clinical development programs based on ibudilast;
- failure to, or substantial delay in, consummating the Merger;
- the ability of the combined company to develop and commercialize product candidates;
- benefits and synergies of the Merger;
- future opportunities of the combined company and growth strategies;
- future financial and operating results, including cash requirements;
- the ability of the combined company to obtain additional funding to required to conduct development and commercialization activities;
- the ability of the combined company to obtain regulatory approvals;
- the ability of the combined company to conduct clinical trials, including difficulties or delays in the completion of patient enrollment, data collection or data analysis;
- the results of preclinical studies and clinical trials;
- the ability of the combined company to obtain, maintain and enforce patent and other intellectual property rights;
- liabilities associated with pending and future litigation; and

MediciNova s ability to attract and retain key employees.

Such forward-looking statements may include statements preceded by, followed by or that otherwise include the words may, might, will, intend should, could, can, would, expect, believe, estimate, anticipate, predict, potential, plan or similar words. For all forwa MediciNova and Avigen claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995, as amended. You should not rely unduly on these forward-looking statements, which speak only as of the date on which they are made. MediciNova and Avigen undertake no obligation to revise or update publicly any forward-looking statements, whether as a result of new information, future events or otherwise, unless required by law.

Table of Contents

THE SPECIAL MEETING OF MEDICINOVA STOCKHOLDERS

Date, Time and Place

This joint proxy statement/prospectus is being furnished to MediciNova stockholders in connection with the solicitation of proxies by the MediciNova board of directors to be used at the special meeting of MediciNova stockholders to be held on December 17, 2009 at 3:00 p.m. Pacific Standard Time at the Northern Trust Tower, 4370 La Jolla Village Drive, Suite 210, San Diego, California 92122, and at any adjournment or postponement of that meeting. This joint proxy statement/prospectus and the enclosed form of proxy are being sent to MediciNova stockholders on or about November 19, 2009.

Purposes of the MediciNova Special Meeting

The purposes of the MediciNova special meeting are:

- to consider and vote upon Proposal No. 1 to adopt the Merger Agreement and approve the issuance of the Convertible Notes;
- to consider and vote on Proposal No. 2 to adjourn the MediciNova special meeting, if necessary, if a quorum is present, to solicit additional proxies if there are not sufficient votes in favor of Proposal No. 1; and
- to transact such other business as may properly come before the MediciNova special meeting or any adjournments or postponements of the MediciNova special meeting.

THE APPROVAL OF PROPOSAL NO. 1 IS A CONDITION TO THE COMPLETION OF THE MERGER.

Recommendations of the MediciNova Board of Directors

THE MEDICINOVA BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT THE MERGER IS ADVISABLE AND FAIR TO, AND IN THE BEST INTERESTS OF, MEDICINOVA AND ITS STOCKHOLDERS AND HAS APPROVED THE MERGER AND THE MERGER AGREEMENT. THE MEDICINOVA BOARD OF DIRECTORS RECOMMENDS THAT MEDICINOVA STOCKHOLDERS VOTE FOR PROPOSAL NO. 1 TO ADOPT THE MERGER AGREEMENT AND APPROVE THE ISSUANCE OF THE CONVERTIBLE NOTES.

THE MEDICINOVA BOARD OF DIRECTORS ALSO RECOMMENDS THAT MEDICINOVA STOCKHOLDERS VOTE FOR PROPOSAL NO. 2 TO ADJOURN THE SPECIAL MEETING, IF NECESSARY, IF A QUORUM IS PRESENT, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF THE FOREGOING PROPOSAL NO. 1.

Record Date and Voting Power

MediciNova s board of directors has fixed the close of business on October 30, 2009 as the record date for determining the holders of shares of MediciNova common stock entitled to receive notice of and to vote at the MediciNova special meeting. Only holders of record of shares of MediciNova common stock at the close of business on that date will be entitled to vote at the special meeting and at any adjournment or postponement of that meeting. At the close of business on the record date, there were 12,103,969 shares of MediciNova common stock outstanding, held by approximately 5,900 holders of record.

Each holder of shares of MediciNova common stock outstanding on the record date will be entitled to one vote for each share held of record upon each matter properly submitted at the special meeting and at any adjournment or postponement of that meeting. In order for MediciNova to satisfy its quorum requirements, the holders of at least a majority of the total number of outstanding shares of MediciNova common stock entitled to

64

Table of Contents

vote at the special meeting must be present. A MediciNova stockholder will be deemed to be present if he, she or it attends the meeting or submits a proxy that is received at or prior to the special meeting (and not revoked as described below).

If a proxy is properly executed and received by MediciNova in time to be voted at the MediciNova special meeting, the shares represented by such proxy will be voted in accordance with the instructions therein. If a MediciNova stockholder executes a proxy but does not provide MediciNova with any instructions, the shares represented will be voted FOR Proposal No. 1 to adopt the Merger Agreement and approve the issuance of the Convertible Notes and FOR Proposal 2 to adjourn or postpone the special meeting as may be necessary to solicit additional proxies.

Voting and Revocation of Proxies

A stockholder may vote his, her or its shares of MediciNova common stock at the special meeting either in person or by proxy. To vote by proxy, a stockholder must mark, date, sign and mail the enclosed proxy or vote by telephone or by using the Internet as instructed on the enclosed proxy card. Giving a proxy will not affect a stockholder s right to vote his, her or its shares if he, she or it attends the MediciNova special meeting and wants to vote in person. The shares represented by the proxies received in response to this solicitation and not properly revoked will be voted at the special meeting in accordance with the instructions therein.

The presence of a MediciNova stockholder at the special meeting will not revoke that stockholder s proxy automatically. However, a MediciNova stockholder may revoke a proxy at any time prior to its exercise by:

- submitting a written revocation to MediciNova s corporate secretary that is received prior to the special meeting;
- submitting another proxy that is dated later than the original proxy and that is received prior to the special meeting;
- providing proxy instructions via the telephone or the Internet at a later date (a MediciNova stockholder s latest telephone or Internet proxy is counted); or
- attending the special meeting and voting in person if the stockholder s shares of MediciNova common stock are registered in such stockholder s name rather than in the name of a broker, bank or other nominee.

If a stockholder s shares of MediciNova common stock are held by a broker or bank, such stockholder must follow the instructions on the form received from its broker or bank with respect to changing or revoking his, her or its proxy.

Required Vote

Adoption of the Merger Agreement and approval of issuance of the Convertible Notes requires the affirmative vote of the holders of a majority of the outstanding shares of MediciNova common stock. Shares of MediciNova common stock as to which the abstain box is selected on a proxy card will be counted as present for purposes of determining whether a quorum is present. **The required vote of MediciNova stockholders on Proposal No. 1 to adopt the Merger Agreement and approve the issuance of the Convertible Notes is based upon the number of outstanding shares of MediciNova common stock, and not the number of shares that are actually voted. Accordingly, the failure to submit a proxy, either by mail or by voting by telephone or the Internet, or to vote in person at the special meeting or the abstention from voting by MediciNova stockholders, or the failure of any MediciNova stockholder who holds shares in street name through a bank or broker to give voting instructions to such bank or broker, will have the same effect as an AGAINST vote with respect to Proposal No. 1 to adopt the Merger Agreement and approve issuance of the Convertible Notes.**

As of the record date, MediciNova directors and executive officers and their affiliates owned and were entitled to vote approximately 1,849,777 shares of MediciNova common stock, representing approximately 15.3 percent of the outstanding shares of MediciNova common stock. MediciNova currently expects that

65

Table of Contents

MediciNova s directors and executive officers will vote their shares of MediciNova common stock FOR adoption of the Merger Agreement and approval of the issuance of the Convertible Notes, although none of them has entered into any agreement requiring them to do so.

Approval of any proposal to adjourn or postpone the special meeting, if necessary, for the purpose of soliciting additional proxies may be obtained by the affirmative vote of the holders of a majority of the shares of MediciNova common stock represented at the special meeting, whether or not a quorum is present.

Solicitation of Proxies

In addition to solicitation by mail, directors, officers and employees of MediciNova may solicit proxies for the special meeting from stockholders personally or by telephone and other electronic means. However, they will not be paid for soliciting such proxies. MediciNova also will provide persons, firms, banks and corporations holding shares in their names or in the names of nominees, which in either case are beneficially owned by others, proxy material for transmittal to such beneficial owners and will reimburse such record owners for their expenses in taking such actions. MediciNova also has made arrangements with Advantage Proxy to assist in soliciting proxies and has agreed to pay them $2,500, plus reasonable expenses, for these services.

Other Matters

As of the date of this joint proxy statement/prospectus, MediciNova s board of directors does not know of any business to be presented at the special meeting other than as set forth in the notice accompanying this joint proxy statement/prospectus. If any other matters should properly come before the special meeting, it is intended that the shares represented by proxies will be voted with respect to such matters in accordance with the judgment of the persons voting the proxies.

Stockholder Proposals

Any MediciNova stockholder may propose business to be brought before MediciNova s 2010 annual meeting of stockholders. Proposals of MediciNova stockholders that are intended to be presented by such stockholders at MediciNova s 2010 annual meeting of stockholders must be received by MediciNova s Secretary no later than January 8, 2010 in order that they may be included in MediciNova s proxy statement and form of proxy relating to such meeting.

A stockholder proposal not included in MediciNova s proxy statement for its 2010 annual meeting of stockholders will be ineligible for presentation at the meeting unless the stockholder gives timely notice of the proposal in writing to MediciNova s Secretary at MediciNova s principal executive offices and otherwise complies with the provisions of MediciNova s amended and restated bylaws. To be timely, the amended and restated bylaws provide that MediciNova must have received the stockholder s notice not less than 90 days nor more than 120 days in advance of the anniversary of the date the proxy statement for MediciNova s 2009 annual meeting was released to stockholders. Stockholder proposals submitted pursuant to Rule 14a-8 under the Exchange Act and intended to be presented at MediciNova s 2010 annual meeting of stockholders, must be received by MediciNova s Secretary no later than January 8, 2010 (120 days before the anniversary of the date on which we first mailed MediciNova s proxy materials for the 2009 annual meeting) in order to be considered for inclusion in MediciNova s proxy materials for that meeting. However, if the date of the 2010 annual meeting of stockholders is changed by more than 30 days from the date contemplated herein, MediciNova, must receive the stockholder s notice not later than the close of business on the later of (1) the 90th day prior to such annual meeting and (2) the seventh day following the day on which public announcement of the date of such meeting is first made.

Expenses

MediciNova will pay all expenses of this solicitation as it pertains to its stockholders, including the cost of preparing and mailing this joint proxy statement/prospectus and the form of proxy card, and Avigen will pay all expenses of this solicitation as it pertains to its stockholders, including the cost of preparing and mailing this joint proxy statement/prospectus and the form of proxy card.

Table of Contents

THE SPECIAL MEETING OF AVIGEN STOCKHOLDERS

Date, Time and Place

The special meeting of Avigen stockholders will be held on December 17, 2009, at the principal executive offices of Avigen located at 1301 Harbor Bay Parkway, Alameda, California 94502, commencing at 3:00 p.m. Pacific Standard Time. Avigen is sending this joint proxy statement/prospectus to you in connection with the solicitation of proxies by the Avigen board of directors for use at the Avigen special meeting and any adjournments or postponements of the Avigen special meeting.

Purposes of the Avigen Special Meeting

The purposes of the Avigen special meeting are:

- to consider and vote upon Proposal No. 1 to adopt the Merger Agreement;
- to consider and vote on Proposal No. 2 to adjourn the Avigen special meeting, if necessary, if a quorum is present, to solicit additional proxies if there are not sufficient votes in favor of Proposal No. 1; and
- to transact such other business as may properly come before the Avigen special meeting or any adjournments or postponements of the Avigen special meeting.

THE APPROVAL OF PROPOSAL NO. 1 IS A CONDITION TO THE COMPLETION OF THE MERGER.

Recommendations of the Avigen Board of Directors

THE AVIGEN BOARD OF DIRECTORS HAS DETERMINED AND BELIEVES THAT THE MERGER AGREEMENT AND MERGER ARE ADVISABLE, FAIR TO AND IN THE BEST INTERESTS OF AVIGEN AND ITS STOCKHOLDERS AND RECOMMENDS THAT AVIGEN STOCKHOLDERS VOTE FOR PROPOSAL NO. 1 TO ADOPT THE MERGER AGREEMENT.

THE AVIGEN BOARD OF DIRECTORS ALSO RECOMMENDS THAT AVIGEN STOCKHOLDERS VOTE FOR PROPOSAL NO. 2 TO ADJOURN THE SPECIAL MEETING, IF NECESSARY, IF A QUORUM IS PRESENT, TO SOLICIT ADDITIONAL PROXIES IF THERE ARE NOT SUFFICIENT VOTES IN FAVOR OF ADOPTION OF THE MERGER AGREEMENT.

Record Date and Voting Power

Only holders of record of Avigen common stock at the close of business on the record date, October 30, 2009, are entitled to notice of, and to vote at, the Avigen special meeting. There were approximately 100 holders of record of Avigen common stock at the close of business on the record date, with 29,836,365 shares of Avigen common stock issued and outstanding. Because many of such shares are held by brokers and other institutions on behalf of stockholders, Avigen is unable to estimate the total number of stockholders represented by these record holders. Each share of Avigen common stock entitles the holder thereof to one vote on each matter submitted for stockholder approval.

Voting and Revocation of Proxies

The proxy accompanying this joint proxy statement/prospectus is solicited on behalf of the Avigen board of directors for use at the Avigen special meeting.

All properly executed proxies that are not revoked will be voted at the Avigen special meeting and at any adjournments or postponements of the Avigen special meeting in accordance with the instructions contained in the proxy. If a holder of Avigen common stock executes and returns a proxy and does not specify otherwise, the

67

Table of Contents

shares represented by the proxy will be voted FOR Proposal No. 1 to adopt the Merger Agreement and FOR Proposal No. 2 to adjourn the Avigen special meeting, if necessary, if a quorum is present, to solicit additional proxies if there are not sufficient votes in favor of Proposal No. 1, in accordance with the recommendation of the Avigen board of directors.

An Avigen stockholder who has submitted a proxy may revoke it at any time before it is voted at the Avigen special meeting by executing and returning a proxy bearing a later date, providing proxy instructions via the telephone or the Internet (your latest telephone or Internet proxy is counted), filing written notice of revocation with the Secretary of Avigen stating that the proxy is revoked or attending the Avigen special meeting and voting in person.

Required Vote

The presence, in person or by proxy, at the Avigen special meeting of the holders of a majority of the shares of Avigen common stock outstanding and entitled to vote at the Avigen special meeting is necessary to constitute a quorum at the Avigen special meeting. Approval of Proposal No. 1 requires the affirmative vote of the holders of a majority of the voting power of the shares of Avigen common stock outstanding on the record date of the Avigen special meeting. Approval of Proposal No. 2 requires the affirmative vote of holders of a majority of the votes cast in person or by proxy at the Avigen special meeting. Abstentions will be counted towards a quorum and will have the same effect as negative votes on Proposal No. 1, but will not be counted for any purpose in determining whether Proposal No. 2 is approved. Broker non-votes will be counted towards a quorum, but will not be counted for any purpose in determining whether either proposal is approved.

As of the record date for the Avigen special meeting, the directors and executive officers of Avigen owned approximately less than one percent of the outstanding shares of Avigen common stock entitled to vote at the meeting. Avigen currently expects that all such directors and executive officers will vote their shares of Avigen common stock FOR adoption of the Merger Agreement, although none of them has entered into any agreement requiring them to do so.

Solicitation of Proxies

In addition to solicitation by mail, the directors, officers, employees and agents of Avigen may solicit proxies from Avigen stockholders by personal interview, telephone, telegram or otherwise. Avigen will bear the costs of the solicitation of proxies from its stockholders. Arrangements will also be made with brokerage firms and other custodians, nominees and fiduciaries who are record holders of Avigen common stock for the forwarding of solicitation materials to the beneficial owners of Avigen common stock. Avigen will reimburse these brokers, custodians, nominees and fiduciaries for the reasonable out-of-pocket expenses they incur in connection with the forwarding of solicitation materials.

Other Matters

As of the date of this joint proxy statement/prospectus, the Avigen board of directors does not know of any business to be presented at the Avigen special meeting other than as set forth in the notice accompanying this joint proxy statement/prospectus. If any other matters should properly come before the Avigen special meeting, it is intended that the shares represented by proxies will be voted with respect to such matters in accordance with the judgment of the persons voting the proxies.

Stockholder Proposals

Stockholder proposals may be included in Avigen s proxy materials for an annual meeting so long as they are provided to Avigen on a timely basis and satisfy the other conditions set forth in applicable SEC rules and regulations. Avigen will not be holding any further annual meetings of stockholders if the Merger Agreement is approved by the stockholders of each of MediciNova and Avigen and the Merger is complete. If this does not

Table of Contents

occur, Avigen intends to hold its 2009 Annual Meeting of Stockholders as soon as possible. In this event, to be considered for inclusion in Avigen s proxy materials for the 2009 Annual Meeting of Stockholders, a stockholder proposal must be submitted in writing to Avigen s Secretary at 1301 Harbor Bay Parkway, Alameda, California 94502, a reasonable time prior to the time Avigen begins to print and mail its proxy materials. Stockholders wishing to bring a proposal before the stockholders at the 2009 Annual Meeting of Stockholders that is not included in Avigen s proxy materials for the 2009 Annual Meeting of Stockholders must notify Avigen s Secretary, in writing, not earlier than the close of business on the 90th day prior to Avigen s 2009 Annual Meeting of Stockholders and not later than the close of business on the later of the 60th day prior to Avigen s 2009 Annual Meeting of Stockholders or, if Avigen makes a public announcement of the date of Avigen s 2009 Annual Meeting of Stockholders fewer than 70 days prior to the date of Avigen s 2009 Annual Meeting of Stockholders, then the close of business on the 10th day following the day on which Avigen makes such public announcement. Stockholders should review Avigen s amended and restated bylaws, which contain additional requirements about advance notice of stockholder proposals and director nominations. Stockholders that do not comply with these requirements will not be able to make a stockholder proposal or director nomination at Avigen s 2009 Annual Meeting of Stockholders.

Expenses

Avigen will pay all expenses of this solicitation as it pertains to its stockholders, including the cost of preparing and mailing this joint proxy statement/prospectus and the form of proxy card, and MediciNova will pay all expenses of this solicitation as it pertains to its stockholders, including the cost of preparing and mailing this joint proxy statement/prospectus and the form of proxy card.

Table of Contents

THE MERGER

Background of the Merger

Historically, Avigen s board of directors and management regularly reviewed Avigen s business plans to develop its pipeline of product candidates and assess its strategic opportunities. These regular reviews included evaluations of near-term operating objectives, projections of long-term clinical development plans and related costs, assessments of the adequacy of Avigen s existing financial resources for supporting additional development and the anticipated future market conditions for raising additional funds. With the view towards enhancing stockholder value, Avigen s board of directors and management held discussions from time to time with various companies that expressed preliminary interest in potentially pursuing an acquisition of Avigen or other strategic transactions with respect to Avigen s assets. However, except as described below, none of these discussions resulted in transactions.

In May 2007, recognizing that both Avigen and MediciNova were independently engaged in drug development programs around the molecular compound ibudilast, and that the board of directors of both Avigen and MediciNova shared certain common directors, Avigen s board of directors constituted a special committee of the board of directors, or the AV411 Special Committee, which included all Avigen directors other than those who might be perceived to have a conflict of interest with MediciNova, for the purpose of all discussions pertaining to development plans or potential business transactions concerning Avigen s AV411 program. The AV411 Special Committee consisted of Kenneth Chahine, Stephen G. Dilly, Jan K. Ohrstrom, Richard Wallace and Zola Horovitz. Since May 2008, when Dr. Yuichi Iwaki ceased to be a member of Avigen s board, the AV411 Special Committee consisted of all Avigen directors other than Dr. Prendergast, who was the sole individual serving as a member of the boards of directors of both companies from and after May 2008. During the portions of the board meetings referenced below at which the transaction with MediciNova was discussed, Dr. Prendergast did not attend such portions, and as a result only members of the AV411 Special Committee were in attendance.

From time to time between May 2007 and July 2008, Avigen s board of directors and management held discussions with members of the management of MediciNova about the potential for collaborations and/or strategic transactions between the companies. None of these discussions were of a substantive nature.

During the first half of 2008, Avigen s board of directors and management focused on Avigen s need to raise additional funds to support the long-term development of its product candidates through commercialization. Avigen s board of directors and management, responding to increased uncertainty regarding the ability of companies like Avigen to raise additional financing via the public markets, adopted a business plan designed to maximize the value of its existing resources. Therefore, Avigen focused its spending on its AV650 development candidate and deferred entering into new long-term obligations for staffing, infrastructure or other development programs.

In mid-2008, Avigen s board of directors and management initiated preliminary efforts to pursue opportunities to out-license the development and commercialization rights for Avigen s AV513 program world-wide and its AV411 program in Europe in order to generate funds to support the additional development of these programs.

In early October 2008, Avigen engaged ProPharma Partners Inc., or ProPharma, to assist Avigen in developing strategies and tactics for identifying potential licensing partners for non-U.S. or global rights or pursuing an asset sale of AV411, primarily with European corporations. ProPharma and Avigen were seeking to identify potential partners or purchasers with a neurological drug development focus, neuropathic pain products in the market or in development or with complementary products to AV411 in the market or in development. ProPharma and Avigen were also seeking to identify companies with European clinical development experience and sales and marketing capabilities and sufficient capital resources to support a neuropathic pain clinical

Table of Contents

development program in Europe. Between October 2008 and May 2009, confidentiality agreements were executed with approximately twelve companies, and six of these companies engaged in extensive due diligence review and meetings with Avigen management. These discussions did not result in any firm licensing or asset purchase proposals, as none of the companies elected to propose written term sheets. To the knowledge of Avigen s management, these companies elected not to move forward for various reasons, including (1) insufficient internal resources to evaluate or develop the business opportunity, (2) the cost of purchasing and further developing the license rights or AV411 assets, (3) fit with the companies overall portfolio of drug candidates and (4) potential complexities arising from MediciNova s independent development of ibudilast (MN-166). At the end of May 2009, the engagement arrangement with ProPharma was terminated.

On October 21, 2008, Avigen announced that the top-line data from its AV650 trial for the treatment of spasticity in patients with MS did not meet its primary endpoint, and that Avigen would cease further development of the product candidate and terminate the program. Avigen stated that its management and the board of directors were confident in the reliability of the trial design and execution, and determined that the results were unequivocal. AV650 had been Avigen s lead product candidate and one of only three product candidates in its development pipeline.

In connection with this announcement, Avigen s stock price declined by more than 80% to a low price of $0.53 per share on October 21, 2008. On the same day, affiliates of Biotechnology Value Fund, or BVF, an investor in Avigen, increased its ownership position to approximately 8.2 million shares of Avigen common stock, or 27.55 percent of all outstanding shares, through open market purchases. These entities subsequently increased their ownership position to approximately 8.8 million shares of Avigen common stock, or 29.63 percent of all outstanding shares.

Between October 21 and October 30, 2008, Avigen s board of directors and management evaluated options for shifting the focus of Avigen s remaining financial resources toward the continued development of AV411 and AV513. Avigen s board of directors and management remained concerned about the uncertainty of the public markets and the future challenges to raising additional funds to support future development of these programs without undercutting value for current stockholders. Avigen s board of directors determined to initiate a process of reducing costs and exploring other strategic alternatives for Avigen s remaining resources.

On October 30, 2008, representatives from BVF were invited to make a presentation at a meeting of Avigen s board of directors, during which they expressed skepticism about the condition of the public markets for providing attractive financing to development-stage companies like Avigen and encouraged Avigen s board of directors to consider alternatives for returning cash to stockholders.

On October 30, 2008, Avigen s board of directors approved a significant restructuring aimed at preserving cash and reassessing strategic opportunities, including staff reductions of over 70 percent of Avigen s total workforce. Avigen announced this restructuring on November 3, 2008.

During the final two weeks of November 2008, Avigen engaged in discussions with strategic advisors to expand its efforts to partner or sell Avigen s AV411 program and to consider other strategic alternatives and began negotiating engagement letters with two such advisors, Pacific Growth Equities, or Pacific Growth, and RBC.

During this same period, Avigen management advanced discussions with Baxter Healthcare, Inc. for the sale of Avigen s AV513 program.

In December 2008, MediciNova formed an ad hoc special committee of its board of directors to evaluate a proposed transaction with Avigen. This ad hoc special committee was formed primarily to exclude Dr. John K.A. Prendergast from discussions regarding the transaction due to his concurrent membership on Avigen s board of directors. This ad hoc special committee met numerous times in 2008 and 2009 to discuss terms of the proposed transaction with MediciNova s management. The proposed transaction also was discussed during several of MediciNova s regularly scheduled board meetings in sessions excluding Dr. Prendergast.

Table of Contents

On December 8, 2008, Dr. Zola Horovitz, the Chairman of Avigen s board of directors, received a letter from MediciNova, proposing an acquisition of Avigen by MediciNova and setting forth general terms for the proposed acquisition. That same day, Dr. Horovitz contacted Dr. Jeff Himawan, Chairman of MediciNova s board of directors, and conveyed that Avigen was in the process of retaining strategic advisors to evaluate merger proposals and would propose a timeline for discussions within a few weeks.

On December 9, 2008, Avigen s board of directors held a meeting, with a representative of Cooley Godward Kronish LLP, or Cooley, Avigen s outside legal counsel, present. While not yet formally engaged, strategic advisors from Pacific Growth and RBC gave presentations outlining their expertise and their views of the process for exploring Avigen s strategic alternatives. Avigen s board of directors was informed of the December 8, 2008 proposal received from MediciNova, and instructed management to analyze the proposal and report back to the board of directors with its assessment of the opportunity.

On December 11, 2008, BVF filed an amended Schedule 13D expressing its desire that Avigen liquidate.

On December 16, 2008, Avigen s board of directors held a meeting with a representative of Cooley present. At the meeting, Avigen s board of directors authorized management to complete the sale of Avigen s AV513 asset to Baxter Healthcare. In addition, Avigen s board of directors authorized the negotiation and completion of engagement letters with RBC and Pacific Growth. Avigen s board of directors also discussed the December 8, 2008 MediciNova proposal, and reaffirmed its plan to follow up with MediciNova after the first of January following the completion of the AV513 sale transaction and the engagement of Avigen s financial advisors.

On December 18, 2008, Avigen announced the sale of its AV513 product candidate for $7.0 million to Baxter Healthcare.

On December 22, 2008, Avigen issued a letter to its stockholders underscoring the commitment of its board of directors and management to act in the best interests of Avigen stockholders and emphasizing the actions already taken to preserve cash since the AV650 announcement in October 2008.

On that same day, Dr. Horovitz received a second (and modified) proposal from MediciNova to acquire Avigen. In the letter, MediciNova proposed terms whereby Avigen stockholders would receive MediciNova common stock in return for a payment of $7.0 million from Avigen to MediciNova and receive convertible securities for the remaining net cash value of Avigen, less wind down costs. Under this proposal, Avigen stockholders would not receive direct consideration for any potential proceeds from the Genzyme Agreement. On December 23, 2008, MediciNova s letter was filed with the SEC and publicly announced. On December 29, 2008, Dr. Horovitz contacted Dr. Himawan and re-communicated the board of directors proposed timing for discussions with MediciNova.

On December 29, 2008, BVF filed an amended Schedule 13D stating its support for MediciNova s public merger proposal and its belief that the merger was in the best interest of Avigen stockholders.

On January 9, 2009, BVF delivered a notice to Avigen, demanding that Avigen call a special meeting of stockholders to, among other things, remove the current members of Avigen s board of directors, without cause, and for the proposed election of a slate of nominees proposed by BVF. In the same notice, BVF expressed its support for MediciNova s December 22, 2008 merger proposal.

Also on January 9, 2009, Avigen s board of directors held a meeting with a representative of Cooley present at which Avigen s board of directors discussed BVF s request for a special meeting. Avigen s board of directors also discussed the MediciNova proposal and instructed management to send a confidentiality agreement with MediciNova to enable the companies to conduct preliminary diligence relating to a potential merger.

Table of Contents

On January 13, 2009, Avigen entered into an engagement agreement with RBC, and on January 14, 2009, Avigen entered into an engagement agreement with Pacific Growth. On January 14, 2009, Avigen publicly announced that it had engaged RBC to explore merger and acquisition opportunities for Avigen and had engaged Pacific Growth primarily to assist in monetizing Avigen s AV411 assets.

Avigen engaged Pacific Growth to assist Avigen in developing strategies for identifying potential companies with an interest in acquiring or partnering Avigen s AV411 program or acquiring the company. Pacific Growth was also engaged to evaluate the desirability of potential transactions and to assist in negotiations. Between January 2009 and April 2009, representatives of Pacific Growth met with members of Avigen s management and discussed selected lists of potential AV411 acquisition targets. Avigen engaged two large public companies in extensive due diligence review and meetings with Avigen management. These companies were interested in acquiring Avigen s AV411 program to expand their drug development programs focused on pain and addiction. These discussions resulted in one written proposal in February 2009 for a proposed acquisition of Avigen with consideration of approximately $1.05 per share of Avigen common stock, comprised of $0.50 in cash and the remainder in common stock of the acquiring company. In addition, the proposal included an additional cash milestone payment of $0.15 per share of Avigen common stock upon the acceptance by the FDA of an NDA for AV411 for any indication. Avigen s board of directors determined that this proposal did not exceed Avigen s liquidation value and further negotiations did not result in a proposal at an increased valuation. The engagement of Pacific Growth did not result in any additional firm licensing or asset purchase proposals through April 2009, including by the other large public company, and the engagement arrangement with Pacific Growth was then terminated.

In January 2009, representatives of RBC and Avigen s management met several times and discussed over 170 potential partners for a merger or acquisition. While exploring a broad range of diagnostic and pharmaceutical companies for a potential partner, Avigen s criteria for a merger or acquisition included the following: (1) the partner needed late stage, highly differentiated scientific development with low commercial and regulatory risk; (2) the partner needed to have no imminent need for additional financing for its development that would add significant risk and/or dilution to a potential transaction; and (3) any transaction structure needed to provide significant cash consideration, or at least an option for significant cash consideration, to Avigen stockholders.

Between January 14, 2009 and March 25, 2009, at the direction of Avigen s management, representatives of RBC contacted 20 parties that best met these criteria, including MediciNova, to explore a potential transaction with Avigen. As a result of this process, seven of these 20 contacted parties, including MediciNova, submitted written proposals and, in several cases, multiple written proposals, prior to March 25, 2009. During this time period, Avigen s management executed confidentiality agreements and conducted due diligence on each of these interested parties. In addition, representatives of RBC and Avigen s management negotiated business terms and structures, and exchanged non-binding term sheets with respect to a potential transaction, with each party during this time period.

On January 15, 2009, BVF publicly announced that if it succeeded at the special meeting of Avigen stockholders in removing the current Avigen board members and replacing them with the BVF nominees, its intention was to commence a tender offer to purchase all of the outstanding shares of Avigen common stock for $1.00 per share.

Between January 19, 2009 and February 10, 2009, Avigen and MediciNova attempted to negotiate a confidentiality agreement in order to initiate the due diligence process and merger negotiations between the parties. During this time, Avigen required that the confidentiality agreement contain a customary standstill provision agreed to by other interested parties, restricting such interested parties from increasing their ownership interest in Avigen or initiating a proxy contest to effect control of Avigen s board of directors, but MediciNova was unwilling to execute a confidentiality agreement with a standstill provision. In addition, MediciNova and Avigen were unable to agree upon the terms of an appropriate permitted use of confidential information

Table of Contents

covenant that would allow each party to conduct due diligence and also continue their respective development of ibudilast. On February 10, 2009, MediciNova and Avigen agreed that they would proceed with abbreviated due diligence that would not include any material, non-public information and, if discussions adequately progressed, they would enter into negotiations regarding a confidentiality agreement at a later date.

On January 20, 2009, Avigen s board of directors held a meeting, with a representative of Cooley and representatives of RBC in attendance. Representatives of RBC presented to the board of directors various financial analyses, including a preliminary liquidation value analysis and a stock trading analysis, and an overview and update of the process of evaluating Avigen s strategic alternatives. The preliminary liquidation value analysis was based upon estimates and assumptions provided by Avigen management as of that date and included an estimated historical liquidation value of $1.29 per share as of December 31, 2008 and also a projected liquidation value at December 31, 2009 of $1.13 per share plus a pro rata portion of any future proceeds from the sale of AV411 or achievement of the Genzyme milestone, or up to an estimated $1.84 per share without probability-weighted or present value discounts. The stock trading analysis showed that since the announcement on October 21, 2008 that the AV650 clinical trial had not met its primary endpoint, Avigen stock had traded from a low closing price of $0.51 per share on December 12, 2008 to a high closing price of $0.93 per share on January 16, 2009. This presentation also included an analysis of MediciNova s offer to acquire Avigen, an update on the status of the BVF tender offer, a review of the potential strategic partners who had met the initial criteria set forth by Avigen and a review of possible transaction structures with potential interested partners. At this meeting, Avigen s board of directors directed RBC to contact BVF to discuss if it would be possible to negotiate a settlement of BVF s demands and to continue RBC s process of assessing Avigen s strategic alternatives.

On January 23, 2009, BVF Acquisition LLC filed a Schedule TO with the SEC, formally commencing a tender offer for outstanding shares of Avigen common stock at $1.00 per share.

Avigen s board of directors held meetings on January 26 and 29, 2009, with representatives of RBC and a representative of Cooley in attendance at both, at which it assessed BVF s tender offer. Representatives of RBC also presented various financial analyses, including a preliminary liquidation value analysis and a stock trading analysis, and an overview and update regarding the process of evaluating Avigen s strategic alternatives to Avigen s board of directors, including the merger proposals received by four interested parties as of that date (including a proposal from MediciNova). The preliminary liquidation value analysis presented on January 29, 2009 was based upon estimates and assumptions provided by Avigen management as of that date and included the following projected future liquidation values: (i) at June 30, 2009, $1.20 per share plus any pro rata future proceeds from the sale of AV411 or achievement of the Genzyme milestone resulting in an estimated aggregate present value of $1.40 per share with assumed probability-weighted and present value discounts; and (ii) at December 31, 2009, $1.12 per share plus any pro rata future proceeds from the sale of AV411 or achievement of the Genzyme milestone resulting in an estimated aggregate present value of $1.50 per share with assumed probability-weighted and present value discounts. The stock trading analysis reflected an update to the analysis provided on January 20, 2009 with Avigen s common stock closing at $0.96 per share on January 28, 2009. At the meeting on January 29, 2009, Avigen s board of directors assessed the merits of the proposals received to date and directed RBC to work with Avigen management to continue to evaluate the proposals as well as continue the process of identifying other potential strategic alternatives.

On January 29, 2009, BVF filed a preliminary proxy statement with respect to a special meeting it had called to replace Avigen s board of directors with a slate of its own directors.

On February 6, 2009, Avigen s board of directors held a meeting with a representative of Cooley and representatives of RBC present at which it discussed with representatives of RBC an overview of the potential merger targets contacted, a summary of the proposals received by Avigen to date and potential structures for a strategic transaction, among other items. Following this meeting, Avigen filed a statement on Schedule 14D-9 recommending that Avigen stockholders not tender their shares in connection with BVF s tender offer. Avigen s

rationale for this recommendation was that BVF s tender offer price of $1.00 per share was below Avigen s estimated liquidation value and, in addition, Avigen s board of directors believed it could generate superior value by continuing its evaluation and pursuit of its strategic alternatives.

On February 9, 2009, MediciNova reaffirmed its December 22, 2008 proposal in a publicly disclosed letter to the Chairman of Avigen s board of directors. On February 20, 2009, representatives of RBC met with MediciNova management at RBC s offices in San Francisco, California to discuss the proposed transaction and due diligence.

On February 24, 2009, MediciNova and Avigen agreed that they would sign a confidentiality agreement with no standstill provision, with the understanding that only information that the companies were comfortable disclosing without a standstill provision would be exchanged. Each party advised the other that it would protect information about their respective ibudilast programs until reaching advanced stages of diligence. A confidentiality agreement was executed between the parties on March 4, 2009.

On February 26, 2009, Avigen s board of directors held a meeting, with representatives of RBC and a representative of Cooley present, at which representatives of RBC provided an update on the process for canvassing the market for strategic opportunities to Avigen s board of directors and discussed the merits of the merger proposals from six parties received to date, including MediciNova s proposal. At the meeting, Avigen s board of directors assessed the merits of the proposals received to date and directed RBC to work with Avigen management to continue to evaluate the proposals and the process of identifying other potential strategic alternatives.

On March 2, 2009, Avigen s board of directors met with a representative of Cooley to discuss the BVF proxy contest and the status of discussions with MediciNova, respectively.

On March 10, 2009, RBC sent letters via e-mail to interested parties, including MediciNova, requesting that each party prepare a best offer by March 13, 2009 that RBC could present to Avigen s board of directors in order to narrow the field of potential partners, in light of the upcoming special meeting of Avigen stockholders on March 27, 2009. By March 13, 2009, Avigen had received merger proposals from seven parties, including MediciNova, two of which had improved their proposals following RBC s letter on March 10, 2009. MediciNova did not improve its proposal at this time.

On March 17, 2009, Avigen s board of directors met with representatives of RBC and a representative of Cooley, as well as other advisors, to discuss recent developments and potential strategic alternatives, and RBC rendered its opinion to Avigen s board of directors that the proposal made by MediciNova on December 22, 2008 and reaffirmed on February 9, 2009, was inadequate, from a financial point of view, to the stockholders of Avigen. RBC s opinion presentation included an estimate of MediciNova s proposal at $1.01 per share in total transaction value as of the date of the opinion, which was below Avigen s closing stock price of $1.09 per share on the trading day prior to the opinion and Avigen s estimated liquidation value as of the date of the opinion. The liquidation value analysis presented on March 17 was based upon estimates and assumptions provided by Avigen management as of that date and included the following projected future liquidation values: (1) at June 30, 2009, $1.19 per share plus any pro rata future proceeds from the sale of AV411 or achievement of the Genzyme milestone resulting in an estimated aggregate present value of $1.38 per share with assumed probability-weighted and present value discounts; and (2) at December 31, 2009, $1.11 per share plus any pro rata future proceeds from the sale of AV411 or achievement of the Genzyme milestone resulting in an estimated aggregate present value of $1.46 per share with assumed probability-weighted and present value discounts. RBC also provided an update regarding discussions with the parties that had submitted merger proposals. RBC noted that Avigen had received seven offers to date, three of which had been eliminated from consideration since the prior meeting of Avigen s board of directors following further due diligence by Avigen management. Of the four remaining parties, (i) the first bidder was a small private company with an offer that included a cash election of up to $0.67 per share in cash plus a pro rata portion of at least 35 percent ownership in the combined company; (ii) the second bidder was a small public company with an offer

Table of Contents

that included three proposals: (a) $0.90 per share in cash plus a pro rata portion of 18 percent ownership in the combined company, (b) $0.55 per share in cash plus a pro rata portion of 41% ownership in the combined company plus 75 percent of any contingent value received for AV411 and Genzyme milestones or (c) pro rata portion of 57 percent ownership in the combined company; (iii) the third bidder was a small public company with an offer that included up to $0.72 per share in a convertible security plus a pro rata portion of 16 percent ownership in the combined company plus 100 percent of any contingent value received for AV411 and Genzyme milestones; and (iv) the fourth bidder was MediciNova. Following discussions with representatives of RBC, Avigen s board of directors directed management and its advisors to begin negotiating a definitive agreement with the private company bidder and continue discussions with three other parties, including MediciNova.

On March 18, 2009, representatives of MediciNova management and its financial advisor met with Avigen management and representatives of RBC in San Francisco, California. Representatives from Cooley and Dechert LLP, or Dechert, outside counsel to MediciNova, participated in the meeting telephonically. The parties discussed the terms of MediciNova s proposed transaction and the reasons why Avigen believed the offer was not in the best interests of Avigen stockholders compared to Avigen s other strategic alternatives, including liquidation. Representatives of RBC encouraged MediciNova to submit a revised offer that would, at a minimum, be clearly superior to liquidation.

On March 20, 2009, BVF increased its tender offer for outstanding shares of Avigen common stock to $1.20 per share. That same day, Avigen s board of directors held a meeting at which it discussed BVF s increased tender offer price and directed representatives of RBC to contact BVF to (1) negotiate a further increase in the tender offer price to reflect the value of Avigen s AV411 assets and potential payments under Avigen s agreement with Genzyme, which Avigen s board of directors did not believe were reflected in BVF s $1.20 per share tender offer price and (2) propose that Avigen would share with BVF for its consideration and input, following the execution by BVF of an appropriate confidentiality agreement, the terms of proposals received by Avigen relating to potential strategic transactions. Avigen s board of directors also discussed the March 18, 2009 meeting between the management teams of Avigen and MediciNova in which MediciNova had requested access to additional financial information in order to consider improving its offer. Upon completion of the discussion, Avigen s board of directors directed management to provide MediciNova with all due diligence materials requested by MediciNova other than AV411 materials and to approach MediciNova to propose to provide the AV411 materials to a third-party to review and report to MediciNova as to whether the information was positive or negative.

On March 23, 2009, Avigen s board of directors held a meeting, with representatives of RBC and a representative of Cooley present, at which representatives of RBC led a discussion of a potential settlement with BVF in advance of the stockholder vote. Also at this meeting, Avigen s board of directors determined that a strategic transaction with the party with which it had been negotiating a definitive agreement was no longer viable without the support of BVF. Following the meeting, Avigen announced that its board of directors was reviewing the $1.20 per share tender offer.

On March 25, 2009, Avigen s board of directors held a meeting, with representatives of RBC and a representative of Cooley present, at which it concluded that, in light of BVF s ownership of approximately 30 percent of Avigen s common stock, BVF s expressed position that it would only support a transaction with a structure that allowed Avigen s stockholders to receive primarily cash for their stock, made pursuit of any of the existing merger proposals not feasible. Avigen s board of directors further concluded that Avigen should therefore terminate those discussions and begin the process of developing a plan for liquidation. Following discussions regarding Avigen s liquidation value with Avigen management, Avigen s board of directors further decided not to recommend either in favor of or against the BVF tender offer at $1.20. At the meeting, Avigen s board of directors also resolved to terminate six of the remaining ten company employees due to lack of need for these employees services.

On March 26, 2009, Avigen announced it had discontinued strategic merger discussions in order to develop a plan of liquidation and had therefore reduced the headcount of Avigen, including termination of its Chief

Table of Contents

Executive Officer, Chief Business Officer and General Counsel. Avigen s board of directors did not issue a recommendation with respect to the BVF tender offer at $1.20 per share and noted in its press release that the $1.20 per share was approximately equal to Avigen s current net cash value less wind down costs. Avigen further announced that Avigen s board of directors had appointed Andrew Sauter, Avigen s Chief Financial Officer, to the position of Avigen s Chief Executive Officer. Following these announcements, except as described below, Avigen did not engage in any further strategic discussions with any of the other parties with whom Avigen previously had been negotiating, although it did pursue a potential asset sale of AV411 with various parties during the months April through June 2009.

On that same day, MediciNova contacted Avigen to explore whether a potential merger transaction could offer Avigen stockholders value superior to liquidation. Later that day, MediciNova sent a revised proposal to Avigen with improved terms that included offering Avigen stockholders the option of electing to receive an amount of cash up front, or a convertible security that would also include value for any potential proceeds received from the first milestone under the Genzyme Agreement within a specified period of time.

On March 27, 2009, at Avigen s special meeting of stockholders, BVF did not obtain the approval of 66 2/3 percent of Avigen s outstanding shares to replace Avigen s board of directors with BVF s nominees. That same day, BVF terminated the $1.20 per share tender offer due to the failure of BVF s nominees to be elected to Avigen s board of directors.

On March 31, 2009, Avigen issued a press release that stated Avigen s commitment to working in the best interests of stockholders in developing a plan of liquidation in an expeditious manner.

On April 9, 2009, Avigen s board of directors held a meeting, with representatives of RBC and a representative of Cooley present, at which representatives of RBC presented an analysis of MediciNova s latest proposal to Avigen. Representatives of RBC suggested that the board of directors authorize a counterproposal to be made to MediciNova that would provide additional value for AV411 and the first milestone under the Genzyme Agreement to all stockholders regardless of whether they chose the cash election or convertible notes election. Representatives of RBC recommended continuing negotiations with MediciNova under the belief that there could be a potential transaction superior to liquidation particularly when considering execution risk, liability risk and timing factors. Representatives of RBC recommended that if no deal could be negotiated that was clearly superior to liquidation, Avigen should continue to pursue liquidation in a manner that maximized value for stockholders. At this meeting, Avigen s board of directors directed management to explore its alternatives for monetizing AV411 and other assets in connection with developing a plan of liquidation while maintaining discussions with parties that might provide value superior to liquidation to Avigen stockholders.

Throughout April, May and June 2009, Avigen management maintained contact with MediciNova management while also exploring other strategic alternatives for monetizing AV411 and other assets.

In mid-April, 2009, in connection with these efforts, Avigen began discussions with an interested party, or Suitor A (a private company that was not among the original 20 parties contacted by RBC), with respect to a strategic transaction. Following execution of a confidentiality agreement, Suitor A and Avigen conducted additional due diligence on both companies throughout May and June. On June 3, 2009, Avigen and RBC amended RBC s engagement letter to cover a transaction with Suitor A.

On April 16, 2009, MediciNova sent a revised proposal to Avigen. Members of Avigen management met with members of MediciNova management in Alameda, California on April 22, 2009 and in San Diego, California on April 30, 2009 to discuss a potential transaction.

On May 8, 2009, MediciNova provided a revised verbal proposal to Avigen with improved terms.

On May 11, 2009, Avigen s board of directors held a meeting, with representatives of RBC present, at which representatives of RBC presented a summary of the history of the negotiations with MediciNova to

Table of Contents

Avigen s board of directors. At this meeting, Avigen s board of directors directed RBC to continue to explore a transaction with MediciNova that could be superior to Avigen s other strategic alternatives, including liquidation.

On June 1, 2009, Avigen s board of directors held a meeting at which a representative of Cooley and representatives of BVF were present at which management informed the board of directors as to management s assessment of the potential for a sale of AV411 or a dissolution of Avigen.

On June 19, 2009, Avigen orally received an improved proposal from MediciNova with respect to a merger between the parties that included $3.0 million in additional cash consideration provided with respect to AV411 in connection with the transaction.

On June 22, 2009, Avigen received a non-binding term sheet from Suitor A for an asset purchase of AV411 for $3.0 million in cash, subject to completion of due diligence and execution of definitive and binding agreements.

Later that day, Avigen s board of directors held a meeting, with representatives of RBC and representatives of Cooley present. Following deliberations at that meeting, while Dr. Prendergast was not present, Avigen s board of directors determined to pursue negotiations of a transaction with MediciNova, rather than an asset sale of AV411 to Suitor A, due primarily to the following considerations: (1) the sale of the entire company rather than an asset sale would result in a cleaner wind-up and lower risk of unknown potential future liabilities; (2) the combination of Avigen s and MediciNova s ibudilast programs allowed for potential future upside through the convertible security election structure; and (3) the greater certainty of closure for the MediciNova transaction. Avigen s board of directors also discussed certain potential adverse effects of pursuing a transaction with MediciNova, including: (1) the complexity in the terms of, and risks associated with, the Convertible Notes; and (2) the difficulty of valuing the CPRs and the uncertainty that Avigen stockholders would receive any value for the CPRs, given that Avigen and its management would no longer control the relationship and performance under the Genzyme Agreement. Avigen s board of directors also approved simultaneous preparation for a dissolution of Avigen if Avigen were unable to negotiate an acquisition by MediciNova on more favorable terms.

On June 24, 2009, MediciNova and Avigen entered into a non-binding memorandum of understanding containing the material business terms of a proposed acquisition of Avigen by MediciNova. On June 25, 2009, MediciNova and Avigen issued a joint press release announcing that they had confirmed their understanding of certain key terms for a business combination.

During the remainder of June and throughout July 2009, MediciNova and Avigen s management and legal and financial advisors for both companies conducted financial and scientific due diligence in connection with the proposed transaction. Throughout July 2009, representatives of Dechert and Cooley exchanged preliminary drafts of the transaction documents.

On July 6, 2009, MediciNova retained Ladenburg, Thalmann & Co. Inc., or Ladenburg, as its financial advisor in connection with the proposed Avigen transaction.

On July 21, 2009, Avigen s AV411 Special Committee held a meeting, with representatives of RBC and a representative of Cooley present, to discuss the progress of the transaction. Avigen s board of directors also discussed certain potential adverse effects of pursuing a transaction with MediciNova, including: (1) the complexity in the terms of, and risks associated with, the Convertible Notes; (2) the difficulty of valuing the CPRs and the uncertainty that Avigen stockholders would receive any value for the CPRs, given that Avigen and its management would no longer control the relationship and performance under the Genzyme Agreement; and (3) the anticipated difficulties in reaching agreement of all terms of a merger agreement with MediciNova. Following the meeting, representatives of RBC provided MediciNova with updated feedback from Avigen s AV411 Special Committee, which included (i) revised terms proposed by Avigen on key business issues including the escrow amount, the strike price of the convertible security, the reimbursement of MediciNova

Table of Contents

expenses in the event of a superior proposal and the default consideration for non-electing stockholders, and (ii) general concerns about the progress of MediciNova s due diligence efforts and the negotiations.

On July 27, 2009, Avigen determined to temporarily suspend negotiation of legal documents until business due diligence and negotiation of business terms of the transaction could be finalized.

On July 28, 2009, a representative of RBC met with MediciNova management and representatives of Ladenburg at Ladenburg s offices in New York, New York to discuss transaction terms.

On July 29, 2009, MediciNova met with Avigen and a representative of RBC at Avigen s offices in Alameda, California to discuss transaction terms and complete additional due diligence. On July 30, 2009, management teams from MediciNova and Avigen held a call to discuss outstanding business items.

On July 31, 2009, representatives of RBC and MediciNova held a call to finalize Avigen s financial forecast of wind down expenses in connection with the proposed transaction. On that same day, Avigen s AV411 Special Committee held a meeting, with representatives of RBC and a representative of Cooley present, during which the AV411 Special Committee gave direction to RBC regarding negotiations with MediciNova. Later on that same day, MediciNova provided a revised proposal of business terms.

Between August 3, 2009 and August 5, 2009, representatives of RBC negotiated with MediciNova on multiple calls and exchanged multiple versions of more detailed business term sheets.

On August 5, 2009, following negotiations with RBC, MediciNova submitted a revised summary of proposed business terms.

On August 6, 2009, Avigen s AV411 Special Committee held a meeting, with representatives of RBC and a representative of Cooley present. Avigen s board of directors also discussed certain potential adverse effects of pursuing a transaction with MediciNova, including: (1) the complexity in the terms of, and risks associated with, the Convertible Notes; and (2) the difficulty of valuing the CPRs and the uncertainty that Avigen stockholders would receive any value for the CPRs, given that Avigen and its management would no longer control the relationship and performance under the Genzyme Agreement. Following deliberations, Avigen s AV411 Special Committee authorized management and representatives of RBC to move forward with drafting of the legal agreements based on MediciNova s latest set of proposed business terms. Following the meeting, the drafting and negotiation of legal documents and final confirmatory due diligence by both parties resumed.

Between August 15, 2009 and August 20, 2009, representatives of Cooley and Dechert discussed comments to, and outstanding issues with respect to, the negotiation of the legal documents.

On August 19, 2009, Avigen s board of directors held a meeting, while Dr. Prendergast was not present, with representatives of RBC and Cooley present, at which it discussed the status of the transaction with Avigen s management and its advisors. Avigen s board of directors also discussed certain potential adverse effects of pursuing a transaction with MediciNova, including: (1) the complexity in the terms of, and risks associated with, the Convertible Notes; and (2) the difficulty of valuing the CPRs and the uncertainty that Avigen stockholders would receive any value for the CPRs, given that Avigen and its management would no longer control the relationship and performance under the Genzyme Agreement. Representatives of RBC presented a summary of business terms and outstanding issues. Representatives of Cooley presented a summary of legal terms of the transaction and outstanding issues.

On August 20, 2009, MediciNova s board of directors met with representatives of Ladenburg and representatives of Dechert. Consistent with prior meetings, Dr. Prendergast did not participate in these discussions. At this meeting, Ladenburg delivered its opinion to the MediciNova board of directors that the Merger Consideration was fair, from a financial point of view, to the stockholders of MediciNova. MediciNova s

Table of Contents

management and representatives of Dechert discussed the status of the transaction and presented a summary of the material legal terms. All of MediciNova s directors (other than Dr. Prendergast) then determined that the Merger Agreement and the Merger were advisable, fair to and in the best interests of MediciNova stockholders, approved the Merger Agreement and resolved to recommend that MediciNova stockholders adopt the Merger Agreement and approve the issuance of the Convertible Notes.

On August 20, 2009, Avigen s board of directors held two meetings, while Dr. Prendergast was not present, met with representatives of RBC and representatives of Cooley. At these meetings, Avigen s board of directors discussed, among other things, certain potential adverse effects of pursuing a transaction with MediciNova, including: (1) the complexity in the terms of, and risks associated with, the Convertible Notes; and (2) the difficulty of valuing the CPRs and the uncertainty that Avigen stockholders would receive any value for the CPRs, given that Avigen and its management would no longer control the relationship and performance under the Genzyme Agreement. At these meetings RBC delivered its opinion to Avigen s board of directors that the Merger Consideration was fair, from a financial point of view, to the stockholders of Avigen. Avigen s board of directors determined that the Merger Agreement and the Merger were advisable and fair to and in the best interests of Avigen stockholders and approved the Merger Agreement and resolved to recommend that Avigen stockholders adopt the Merger Agreement. Later that day, Avigen and MediciNova executed the Merger Agreement.

On August 21, 2009, the companies issued a joint press release to announce the signing of the Merger Agreement.

MediciNova s Reasons for the Merger; Recommendation of MediciNova s Board of Directors

The following discussion of MediciNova s reasons for the Merger contains a number of forward-looking statements that reflect the current views of MediciNova with respect to future events that may have an effect on its future financial performance. Forward-looking statements are subject to risks and uncertainties. Actual results and outcomes may differ materially from the results and outcomes discussed in the forward-looking statements. Cautionary statements that identify important factors that could cause or contribute to differences in results and outcomes include those discussed in the sections entitled Risk Factors and Forward-Looking Statements in this joint proxy statement/prospectus.

MediciNova s board of directors approved the Merger and the issuance of the Convertible Notes based on a number of factors, including the following:

Combination of Intellectual Property. The combined ibudilast clinical development programs for MS, neuropathic pain and opiod withdrawal and drug addiction could result in enhanced partnering opportunities for MediciNova and reduced time to NDA submission;

Cost Savings. Preclinical and clinical data for AV411 are expected to be used as support for the development pathway for MN-166, resulting in anticipated cost savings of up to approximately $7.0 million for MediciNova; and

Financing Opportunity. Avigen s cash balance represents a potential financing opportunity with MediciNova potentially deriving proceeds of up to approximately $37.0 million, assuming some or all of Avigen s stockholders elect to receive Convertible Notes in the Merger and subsequently convert those Convertible Notes into MediciNova common stock.

In addition, MediciNova s board of directors noted the following in reaching its conclusion to approve the Merger and the issuance of the Convertible Notes:

opportunity for increased liquidity for MediciNova common stock on Nasdaq, assuming some or all of Avigen s stockholders elect to receive Convertible Notes in the Merger and subsequently convert those Convertible Notes into MediciNova common stock;

Table of Contents

the initial conversion price of the Convertible Notes represented a 6.25 percent premium to the $6.40 opening price of MediciNova shares on Nasdaq on August 20, 2009, the date of signing of the Merger Agreement;

the ability of MediciNova to apply certain amounts from the escrow account to cover the amount by which Avigen s actual closing liabilities exceed estimated liabilities;

the ability of MediciNova to receive certain rights under the Genzyme Agreement, including a potential $5.0 million second milestone payment;

historical and current information concerning Avigen s business;

current financial market conditions and historical market prices, volatility and trading information with respect to Avigen common stock;

the need to obtain MediciNova stockholder and Avigen stockholder approvals in order to complete the Merger;

Ladenburg s opinion, dated August 20, 2009, to MediciNova s board of directors as to the fairness, from a financial point of view and as of the date of the opinion, of the Net Merger Consideration to MediciNova s stockholders; and

the financial and other terms and conditions of the Merger Agreement, which increased the perceived probability of consummating the transaction in a timely manner, including the following related factors:

- provisions designed to limit the ability of the Avigen board of directors to entertain third party acquisition proposals;
- the fact that the Merger Agreement is not subject to termination as a result of any changes in the trading prices of either company s common stock between signing of the Merger Agreement and completion of the Merger; and
- the conditions to the completion of the Merger and the likelihood of those conditions being satisfied.

In the course of its deliberations, MediciNova s board of directors also considered the following material risks and other factors related to entering into the Merger Agreement:

the possibility that the Merger might not be completed in a timely manner or at all;

the risk that the anticipated cost savings may not be realized;

the risk that Avigen generally may terminate the Merger Agreement without payment of a termination fee or reimbursement of expenses; and

the risk that the stockholders of MediciNova and Avigen would not approve the Merger.

MediciNova s board of directors considered all of these factors as a whole and, on balance, concluded that they supported a favorable determination to enter into the Merger Agreement. The foregoing discussion of the information and factors considered by the MediciNova board of directors is not exhaustive, but includes material factors considered by MediciNova s board of directors. In view of the wide variety of factors considered by MediciNova s board of directors in connection with its evaluation of the Merger and the complexity of these matters, MediciNova s board of directors did not consider it practical to, nor did it attempt to, quantify, rank or otherwise assign relative weights to the specific factors that it considered in reaching its decision. MediciNova s board of directors evaluated the factors described above and reached a consensus that the Merger was advisable and in the best interests of MediciNova and its stockholders. In considering the factors described above, individual members of MediciNova s board of directors may have given different weights to different factors.

Table of Contents

MediciNova s board of directors has determined that Proposal No. 1 is in the best interests of MediciNova s stockholders and approved the Merger Agreement and issuance of the Convertible Notes. **MediciNova s board of directors recommends that MediciNova s stockholders approve Proposal No. 1.**

The foregoing discussion of MediciNova s board of directors considerations concerning the Merger is forward-looking in nature. This information should be read in light of the discussions under the heading Forward-Looking Statements.

Avigen s Reasons for the Merger; Recommendation of Avigen s Board of Directors

The following discussion of Avigen s reasons for the Merger contains a number of forward-looking statements that reflect the current views of Avigen with respect to future events that may have an effect on its future financial performance. Forward-looking statements are subject to risks and uncertainties. Actual results and outcomes may differ materially from the results and outcomes discussed in the forward-looking statements. Cautionary statements that identify important factors that could cause or contribute to differences in results and outcomes include those discussed in the sections entitled Risk Factors and Forward-Looking Statements in this joint proxy statement/prospectus.

Avigen s board of directors approved the Merger based on a number of factors, including the following:

Strategic Alternatives. The consideration of Avigen s efforts to pursue strategic alternatives to the Merger, including engaging in a transaction with another company, an asset sale for Avigen s AV411 program or undertaking a liquidation or dissolution of Avigen;

Consolidation of Intellectual Property. The combined company will have consolidated the intellectual property related to ibudilast, which Avigen refers to as AV411 and MediciNova refers to as MN-166; and

Stockholder Opportunity. The opportunity for Avigen stockholders to participate in the short and long-term value of MediciNova s preclinical and clinical development programs, including ibudilast (AV411), as a result of the Merger.

In particular, Avigen s board of directors noted the following in reaching its conclusion to approve the business combination with MediciNova:

Avigen s efforts to solicit indications of interest from other third parties with respect to a possible acquisition of Avigen or asset sale for Avigen s AV411 program was not resulting in firm proposals within a reasonable timeframe that could be expected to result in a completed transaction before the end of 2009;

the projected liquidation value of Avigen, including the uncertainty of receiving incremental value for AV411 and the projected number of years before Avigen stockholders would receive final distributions from a plan of dissolution, was lower than the projected value that Avigen stockholders will receive in the Merger;

the form of the consideration Avigen stockholders will receive in the Merger, which includes the ability of the Avigen stockholders to elect to receive cash or Convertible Notes in the Merger, would allow individual Avigen stockholders to select the form of consideration that is of greatest value to them;

the opportunity for Avigen stockholders to participate in the potential long-term value of MediciNova s product candidate development programs, including ibudilast (AV411), as a result of the Merger if they elect to receive and then convert the Convertible Notes;

the fact that the Convertible Notes and shares of MediciNova common stock issuable thereunder to Avigen stockholders will be registered on Form S-4 and will be freely tradable for Avigen stockholders;

Table of Contents

the ability of the Avigen stockholders to receive additional cash payments upon potential achievement of certain milestones, if any, pursuant to the CPRs issued in the Merger;

the terms and conditions of the Merger Agreement, which increased the perceived probability of consummating the transaction in a timely manner, including the following related factors:

the nature of the conditions to MediciNova s obligation to consummate the Merger and the limited risk of non-satisfaction of such conditions;

the limited number and nature of Avigen s obligations to consummate the Merger;

the limited ability of the parties to terminate the Merger Agreement;

Avigen s rights under the Merger Agreement to consider certain unsolicited acquisition proposals under certain circumstances should Avigen receive a superior proposal;

the fact that the Merger Agreement allows Avigen s board of directors to withdraw or modify its recommendation that stockholders adopt the Merger Agreement if a superior offer is received from a third party and Avigen s board of directors determines in good faith that the failure to do so would reasonably be expected to result in a breach of its fiduciary duties to Avigen stockholders under applicable law; and

the belief that the terms of the Merger Agreement, including the parties representations, warranties and covenants, and the conditions to their respective obligations, are reasonable under the circumstances; and

the opinion rendered on August 20, 2009 by RBC, financial advisor to Avigen s board of directors, that as of that date and subject to the assumptions, qualifications and limitations set forth in its opinion, the Merger Consideration payable in the Merger was fair, from a financial point of view, to Avigen stockholders, as more fully described below in the section entitled Opinion of RBC Capital Markets Corporation Financial Advisor to Avigen.

In the course of its deliberations, Avigen s board of directors also considered the following material risks and factors related to entering into the Merger Agreement:

the possibility that the Merger might not be completed in a timely manner or at all and the delay in the dissolution of Avigen that will result if the Merger does not close;

the potential for either the First Payment Consideration or Second Payment Consideration to have a smaller value than projected at the time of execution of the Merger Agreement;

the difficulty of valuing the CPRs and the uncertain tax treatment of such CPRs;

the risk that Avigen stockholders would receive no cash payments from the CPRs following consummation of the Merger if the CPRs expire before any applicable milestones are achieved;

the risk that MediciNova may terminate the Merger Agreement;

the requirement under the terms of the Merger Agreement that Avigen reimburse MediciNova up to $500,000 of incurred expenses under certain circumstances;

the fact that the interests of Avigen s directors and officers may be different in certain respects from the interest of Avigen stockholders, given the indemnification and insurance coverage to be provided after completion of the merger, cash bonuses that may be paid to two executive officers, fees to be paid to the representative of former Avigen stockholders under the CPR Agreement and, with respect to officers and former officers, their interests in the management transition plan, all as described below under Interests of Avigen s Directors and Executive Officers in the Merger ; and

the risks associated with obtaining the MediciNova and Avigen stockholder votes.

Table of Contents

The foregoing information and factors considered by Avigen s board of directors are not intended to be exhaustive but are believed to include all of the material factors considered by Avigen s board of directors. In view of the wide variety of factors considered in connection with its evaluation of the Merger and the complexity of these matters, Avigen s board of directors did not find it useful, and did not attempt, to quantify, rank or otherwise assign relative weights to these factors. In considering the factors described above, individual members of Avigen s board of directors may have given different weight to different factors. Avigen s board of directors conducted an overall analysis of the factors described above, including thorough discussions with, and questioning of, Avigen s management and Avigen s legal and financial advisors, and considered the factors overall to be favorable to, and to support, its determination.

Avigen s board of directors determined that the Merger Agreement and the Merger are advisable, fair to and in the best interest of Avigen stockholders and approved the Merger Agreement.

The foregoing discussion of Avigen s board of directors considerations concerning the Merger is forward looking in nature. This information should be read in light of the discussions under the heading Forward-Looking Statements.

Interests of Avigen s Directors and Executive Officers in the Merger

In considering the recommendation of Avigen s board of directors with respect to adoption of the Merger Agreement, Avigen stockholders should be aware that members of the board of directors and executive officers of Avigen have interests in the Merger that may be different from, or in addition to, interests they have as Avigen stockholders. These interests may create an appearance of a conflict of interest. Avigen s board of directors was aware of these potential conflicts of interest during its deliberations on the merits of the Merger and in making its decision in approving the Merger, the Merger Agreement and the related transactions. As of August 31, 2009, all directors and executive officers of Avigen owned less than one percent of the outstanding shares of Avigen common stock.

Indemnification and Insurance. Subject to applicable Delaware law, from and after the effective time of the Merger, MediciNova has agreed to cause the surviving entity to maintain and honor all indemnification arrangements in place for all past and present directors, officers, employees and agents of Avigen and its subsidiaries as of the date of the Merger Agreement under Avigen s amended and restated certificate of incorporation and amended and restated bylaws and the indemnification agreements disclosed to MediciNova for acts or omissions occurring at or prior to the effective time of the Merger.

Avigen has agreed to purchase, and MediciNova has agreed to cause the surviving entity to maintain, a directors and officers insurance and indemnification policy that will cover those persons who are covered by Avigen s directors and officers insurance and indemnification policy as of the date of the Merger Agreement for events occurring prior to the effective time of the Merger on terms no less favorable than those applicable to the current directors and officers of Avigen for a period of six years; provided, however, that in no event will Avigen expend in excess of an agreed amount to procure insurance coverage without the prior written consent of MediciNova.

Management Transition Plan. Avigen s board of directors had established a management transition plan intended to retain key employees and enable executive officers to represent stockholder interests during periods involving a possible change in control of Avigen, and to provide severance benefits in the event of termination of employment without cause. The management transition plan was designed to protect the earned benefits of key employees, including executive officers, against adverse changes that may result from a change in control of Avigen or termination without cause. As amended, the management transition plan will terminate in connection with the Merger, and the scheduled payouts under the management transition plan will occur upon termination or shortly thereafter, except to the extent necessary to delay payouts to avoid adverse tax consequences.

Table of Contents

Five of Avigen s current and former named executive officers are participants in the plan and are entitled to receive the following benefits if his or her employment is involuntarily terminated, or he or she resigns as a result of a constructive termination, as defined under the management transition plan:

- 15 months base salary (21 months, in the case of Dr. Kenneth Chahine, J.D., Ph.D., Avigen s former Chief Executive Officer and President);
- full accelerated vesting of outstanding stock options; and
- 15 months (18 months, in the case of Dr. Chahine) health benefits payments, or until such earlier date as the executive officer secures subsequent employment that provides substantially similar health benefits.

If such a termination had occurred on September 30, 2009, Avigen s current named executive officers would have received the following benefits:

Name	Salary Continuation	COBRA Payments
Andrew A. Sauter	$ 334,914	$ 22,041
Kirk Johnson	$ 348,160	$ 21,645

Regardless of whether the Merger is consummated, these amounts, subject to de minimis adjustments to the cost of payments under COBRA, will be payable at the time of such named executive officers termination.

The employment of three of Avigen s former named executive officers, Dr. Chahine, M. Christina Thomson, J.D., Avigen s former Vice President, General Counsel and Secretary, and Michael Coffee, Avigen s former Chief Business Officer, was terminated in March 2009, at which time such executive officers became entitled to receive benefits under the plan. The amounts payable to these former executive officers, which are specified below, are currently being paid and will be paid whether or not the Merger is consummated.

Name	Salary Continuation	COBRA Payments
Kenneth Chahine, J.D., Ph.D.	$ 775,689	$ 32,656
Michael Coffee	$ 392,379	$ 4,813
M. Christina Thomson, J.D.	$ 334,914	$ 8,594

Cash bonuses. Andrew A. Sauter, Avigen s current Chief Executive Officer, President and Chief Financial Officer, and Kirk Johnson, Ph.D., Avigen s Vice President, Research and Development, are expected to receive cash bonuses for the remainder of Avigen s existence as determined by Avigen s compensation committee of the board of directors, in its sole discretion, based on the estimated value to be received by Avigen s stockholders upon completion of the Merger or dissolution of Avigen, as applicable. The receipt of cash bonuses by Messrs. Sauter and Johnson is not conditioned on the completion of the Merger. However, based on the anticipated amount of consideration estimated to be paid by MediciNova in the Merger, an aggregate of $150,000 in cash bonuses have been included in Avigen s estimated closing liabilities, with the precise amount of such awards expected to be determined prior to consummation of the Merger.

Representation of Former Avigen Stockholders. Under the CPR Agreement, Andrew A. Sauter, Avigen s current Chief Executive Officer, President and Chief Financial Officer or any successor person appointed in accordance with the CPR Agreement, will receive fees of $1,500 per month plus reimbursement of reasonable, documented out-of-pocket expenses of up to $50,000 for serving as the representative of the interests of former Avigen stockholders under such agreement. If Mr. Sauter decides not to act as such representative, then Kenneth G. Chahine, J.D., Ph.D., a current director of Avigen and the company s former Chief Executive Officer and President, will be eligible, at his election, to act as the representative of former Avigen stockholders under such agreement, thereby entitling him to receive such fees and reimbursement of expenses.

85

Table of Contents

Opinion of Ladenburg Thalmann & Co. Inc. Financial Advisor to MediciNova

Ladenburg Thalmann & Co. Inc., or Ladenburg, made a presentation to MediciNova s board of directors on August 20, 2009 and subsequently delivered its written opinion to MediciNova s board of directors. The opinion stated that, as of August 20, 2009, based upon and subject to the assumptions made, matters considered, procedures followed and limitations on Ladenburg s review as set forth in the opinion, the Net Merger Consideration (as defined hereinafter for the purposes of this section) to be paid by MediciNova is fair to MediciNova stockholders. The financial terms and other terms of the Merger were determined pursuant to negotiations between MediciNova, Avigen and each of their respective advisors and not pursuant to any recommendation from Ladenburg.

The full text of Ladenburg s written opinion dated as of August 20, 2009, which sets forth the assumptions made, matters considered, procedures followed, and limitations on the review undertaken by Ladenburg in rendering its opinion, is attached as Annex F to this joint proxy statement/prospectus and is incorporated herein by reference. Ladenburg s opinion is not intended to be, and does not constitute, a recommendation to you as to how you should vote or act with respect to the Merger or any other matter relating thereto. The summary of the Ladenburg opinion set forth in this joint proxy statement/prospectus is qualified in its entirety by reference to the full text of the opinion. We urge you to read the opinion carefully and in its entirety.

Ladenburg s opinion is for the use and benefit of MediciNova s board of directors in connection with its consideration of the Merger. Ladenburg s opinion may not be used by any other person or for any other purpose without Ladenburg s prior written consent. Ladenburg s opinion should not be construed as creating any fiduciary duty on its part to any party to the Merger Agreement or any ancillary documents or any other person. Ladenburg has, however, consented to the filing of its opinion as Annex F to this joint proxy statement/prospectus.

Ladenburg was not requested to opine as to, and its opinion does not in any manner address, the relative merits of the Merger as compared to any alternative business strategy that might exist for MediciNova, whether MediciNova should complete the Merger, and other alternatives to the Merger that might exist for MediciNova. Ladenburg does not express any opinion as to the underlying valuation or future performance of MediciNova or Avigen or the price at which MediciNova s or Avigen s securities might trade at any time in the future.

Ladenburg s analysis and opinion are necessarily based upon market, economic and other conditions, as they existed on, and could be evaluated as of, August 20, 2009. Accordingly, although subsequent developments may affect its opinion, Ladenburg assumed no obligation to update, review or reaffirm its opinion to MediciNova or any other person.

In arriving at its opinion, Ladenburg took into account an assessment of general economic, market and financial conditions, as well as its experience in connection with similar transactions and securities valuations generally. In so doing, among other things, Ladenburg:

- reviewed drafts of the Merger Agreement and ancillary documents dated as of August 20, 2009;
- reviewed publicly available financial information and other data with respect to MediciNova that it deemed relevant, including the Annual Report on Form 10-K for the year ended December 31, 2008, the Quarterly Report on Form 10-Q for the quarter ended June 30, 2009, and the Current Report on Form 8-K filed June 25, 2009;
- reviewed publicly available financial information and other data with respect to Avigen that it deemed relevant, including the Annual Report on Form 10-K for the year ended December 31, 2008 (as amended), the Quarterly Report on Form 10-Q for the quarter ended June 30, 2009, and the Current Report on Form 8-K filed June 25, 2009;
- reviewed non-public information and other data with respect to MediciNova and Avigen, including internal financial information and management reports;

Table of Contents

reviewed certain stock analyst research reports on MediciNova and Avigen;

reviewed and analyzed the Merger s pro forma impact on MediciNova s outstanding securities and stockholder ownership;

considered the present financial condition of MediciNova and Avigen;

reviewed the trading of, and the trading market for, MediciNova and Avigen common stock;

reviewed and analyzed the indicated value range of the Net Merger Consideration, including the derivation of the embedded option value of the Convertible Notes utilizing a Black-Scholes analysis;

reviewed and analyzed historical stock price volatilities of MediciNova and publicly-traded companies that were deemed to have characteristics comparable to MediciNova;

reviewed and analyzed certain biotechnology common stock equity offerings completed to date in 2009;

reviewed and analyzed the value of Avigen s assets, including the potential value of recreating and utilizing AV411 intellectual property and associated clinical data;

reviewed and analyzed the potential value of an accelerated launch of MN-166;

reviewed and analyzed the potential equity offering cost savings of the Convertible Notes (if converted) as compared to a secondary offering of MediciNova s securities;

reviewed and discussed with MediciNova and Avigen management and other MediciNova and Avigen representatives certain financial and operating information furnished by them, including financial analyses with respect to MediciNova s and Avigen s business and operations; and

performed such other analyses and examinations as were deemed appropriate.

In arriving at its opinion, with MediciNova s consent, Ladenburg relied upon and assumed, without assuming any responsibility for independent verification, the accuracy and completeness of all of the financial and other information that was supplied or otherwise made available to Ladenburg and Ladenburg further relied upon the assurances of MediciNova and Avigen management that they were not aware of any facts or circumstances that would make any such information inaccurate or misleading. With respect to the financial information reviewed, Ladenburg assumed that such information was reasonably prepared on a basis reflecting the best currently available estimates and judgments, and that such information provided a reasonable basis upon which it could make its analysis and form an opinion. Ladenburg did not evaluate the solvency or fair value of MediciNova or Avigen under any applicable foreign, state or federal laws relating to bankruptcy, insolvency or similar matters. Ladenburg did not physically inspect MediciNova s or Avigen s properties and facilities and did not make or obtain any evaluations or appraisals of either company s assets and liabilities (including any contingent, derivative or off-balance-sheet assets and liabilities). Ladenburg did not attempt to confirm whether MediciNova and Avigen had good title to their respective assets.

Ladenburg assumed that the Merger will be consummated in a manner that complies in all respects with applicable foreign, federal, state and local laws, rules and regulations. Ladenburg assumed, with MediciNova s consent, that the final executed forms of the Merger Agreement and

the ancillary documents do not differ in any material respect from the drafts Ladenburg reviewed and that the Merger will be consummated on the terms set forth in the Merger Agreement and the ancillary documents, without further amendments thereto, and without waiver by MediciNova of conditions to any of its obligations thereunder or in the alternative that any such amendments or waivers thereto will not be detrimental to MediciNova or its stockholders in any material respect.

In connection with rendering its opinion, Ladenburg performed certain financial, comparative and other analyses as summarized below. Each of the analyses conducted by Ladenburg was carried out to provide a different perspective on the Merger, and to enhance the total mix of information available. Ladenburg did not form a conclusion as to whether any individual analysis, considered in isolation, supported or failed to support its

Table of Contents

opinion. Further, the summary of Ladenburg s analyses described below is not a complete description of the analyses underlying Ladenburg s opinion. The preparation of a fairness opinion is a complex process involving various determinations as to the most appropriate and relevant methods of financial analysis and the application of those methods to the particular circumstances and, therefore, a fairness opinion is not readily susceptible to partial analysis or summary description. In arriving at its opinion, Ladenburg made qualitative judgments as to the relevance of each analysis and factors that it considered. Also, Ladenburg may have given various analyses more or less weight than other analyses, and may have deemed various assumptions more or less probable than other assumptions, so that the range of valuations resulting from any particular analysis described above should not be taken to be Ladenburg s view of the value of MediciNova s and Avigen s assets. The estimates contained in Ladenburg s analyses and the ranges of valuations resulting from any particular analysis are not necessarily indicative of actual values or actual future results, which may be significantly more or less favorable than suggested by such analyses. Also, analyses relating to the value of businesses or assets neither purport to be appraisals nor do they necessarily reflect the prices at which businesses or assets may actually be sold. Accordingly, Ladenburg s analyses and estimates are inherently subject to substantial uncertainty. Ladenburg believes that its analyses must be considered as a whole and that selecting portions of its analyses or the factors it considered, without considering all analyses and factors collectively, could create a misleading or incomplete view of the process underlying the analyses performed by Ladenburg in connection with the preparation of its opinion.

The analyses performed were prepared solely as part of Ladenburg s analysis of the fairness of the Net Merger Consideration to be paid by MediciNova in the Merger to MediciNova stockholders from a financial point of view and were provided to MediciNova s board of directors in connection with the delivery of Ladenburg s opinion. Ladenburg s opinion was just one of the several factors MediciNova s board of directors took into account in making its determination to approve the Merger, including those described elsewhere in this joint proxy statement/prospectus.

Stock Performance Review

Ladenburg reviewed the daily closing market price and trading volume of MediciNova common stock on the Nasdaq and Hercules exchanges for the period from January 1, 2009 to August 19, 2009 and noted the predominance of trading on the Hercules exchange versus Nasdaq. Ladenburg reviewed a number of other merger transactions in the biotechnology space to ascertain when an exchange price was determined and the typical trading period used to determine an exchange price. Ladenburg found the exchange price was most frequently decided at the signing of the definitive agreement and was based upon an average period of 20 days.

Net Merger Consideration Analysis

The aggregate Merger Consideration, estimated to be approximately $36.9 million, will be payable in cash, Convertible Notes (convertible into shares of MediciNova common stock, at $6.80 per share) or a combination thereof (at the election of each holder of Avigen common stock), and one CPR.

The aggregate Merger Consideration will be funded by Avigen s approximately $33.9 million cash, net of estimated expenses, and by $3.0 million of MediciNova s cash. For the purposes of Ladenburg s opinion, the term Net Merger Consideration refers to and is defined as the $3.0 million to be paid by MediciNova and the embedded option value of the Convertible Notes.

To calculate the estimated embedded option value of the Convertible Notes, Ladenburg utilized the Black-Scholes option valuation methodology and generated an indicated value of approximately $16.4 million. The following inputs were used in the Black-Scholes calculation:

MediciNova stock price and exercise price of $6.80 (assumed to be an at-the-money option);

term of 1.5 years;

Table of Contents

volatility of 95 percent, based on observed historical peer group volatility; and

risk free rate of 0.86 percent.

Therefore, the indicated value of the Net Merger Consideration utilized in Ladenburg s analysis ranged from $3.0 million to $19.4 million depending on the number of shares of Avigen common stock for which an election to receive Convertible Notes is made.

Avigen Valuation Overview

Ladenburg generated an indicated valuation range of the potential impact of MediciNova s merger with Avigen utilizing a sum of the parts approach. This analysis included the AV411 data and intellectual property MediciNova would receive in the merger, the impact this data and intellectual property could have on the development of MediciNova s MN-166, the Genzyme Agreement and potential public offering cost savings to MediciNova, each as more fully discussed below.

In Ladenburg s review of the data and intellectual property surrounding Avigen s AV411 program, Ladenburg considered certain data that Avigen generated in the course of its clinical program, and in part based upon discussions with Avigen management, determined that the cost to MediciNova to recreate this data, both in direct costs as well as associated overhead for the time period necessary to conduct the studies, was approximately $4.0 million to approximately $7.0 million.

Ladenburg also considered the potential value to MediciNova of getting its MN-166 product to market as much as one year sooner as a result of acquiring this data. Utilizing a discounted cash flow analysis where the underlying data was based on published Ladenburg stock analyst projections for sales of the MN-166 product candidate when approved, Ladenburg derived an indicated value of approximately $6.7 million to approximately $26.7 million, depending on the acceleration of launch actually obtained as a result of the acquired data. In addition, Ladenburg considered the intellectual property surrounding AV411, and the impact such data might have on the partnerability of MN-166. Ladenburg analyzed 14 partnering transactions involving neurology compounds to treat pain, and determined that the more complete intellectual property estate which would surround MN-166 upon the acquisition of Avigen indicated an average present value of approximately $19.5 million for a partnership surrounding the pain indications protected under the AV411 patent.

Table of Contents

The following table provides additional information regarding the 14 partnering transaction analyzed by Ladenburg.

Company	Product	Partner	License Agreement Date
Acura Pharmaceuticals Inc.	OxyADF, Scurox	King Pharamaceuticals Inc.	December 2007
Adolor Corp.	ADL5859, PF-04856880, PF-4856880	Pfizer Inc.	December 2007
Akela Pharma Inc.	Fentanyl Taifun	Johnson & Jonson	June 2007
BioDelivery Sciences International Inc.	BEMA fentanyl, Onsolis	Meda AB	September 2007
Dov Pharmaceutical Inc.	Bicifadine	XTL Biopharmaceuticals Ltd.	January 2007
Durect Corp.	Saber-bupivacain, Optesia, Posidur	Nycomed Group A/S	November 2006
Gruenenthal Group	Axomadol	Endo Pharmaceuticals Inc.	February 2009
Idea AG	IDEA-033, Diractin, ketroprofen in Transfersome gel	King Pharmaceuticals Inc.	October 2007
NeurogesX Inc.	Qutenza, NGX-4010, Transacin, Capaicin	Astellas Pharma Inc.	June 2009
Pain Therapeutics Inc.	PTI-821, Remoxy	Durect Corp.; King Pharmaceuticasl Inc.	December 2005
Pozen Inc.	PN 400, Vimovo	AstraZeneca plc	September 2007
ProEthic Pharmaceuticals Inc.	EN3269, Ketoprofen patch	Endo Pharmaceuticals Inc.	March 2005
Valeant Pharmaceuticals International	Retigabine, Retigabine IR	GlaxoSmithKline plc	August 2009
XenoPort Inc.	ASP8825, GSK1838262, XP13512, Solzira, 1838262	Astellas Pharma Inc.; GlaxoSmithKline plc	December 2005

None of the reviewed partnering transactions involve companies or compounds with characteristics identical to MediciNova, MN-166 or AV411. An analysis of partnering transactions is not mathematical; rather, it involves complex consideration and judgments concerning differences in financial and operating characteristics of the partnering companies and other factors that could affect their respective partnering values.

Ladenburg also considered the existing Genzyme partnership with Avigen relating to Avigen s Parkinson s disease product. The first milestone payment under this contract, if any, will be paid to Avigen stockholders under the CPRs granted in the Merger. However, should the product be approved, MediciNova would be entitled to a second milestone payment from Genzyme of $5.0 million, as well as royalties on product sales.

Ladenburg reviewed biotechnology equity offerings in 2009 under $100.0 million for companies with market capitalizations under $1.0 billion and noted that the average offering price discount to market was 9.8 percent and the average underwriting and offering fees were 4.4 percent and 0.8 percent of the market price, respectively, for a total indicated discount of approximately 15.0 percent of gross proceeds. If the Avigen stockholders were to convert their Convertible Notes to MediciNova shares, MediciNova would effectively be conducting a $37.0 million equity offering at the market. Avoiding the offering discounts and other fees that would be present in a market transaction derives an indicated potential costs savings of approximately $6 million. None of the reviewed biotechnology equity offerings were conducted by companies with characteristics identical

Table of Contents

to MediciNova. An analysis of biotechnology equity offerings is not mathematical; rather it involves complex consideration and judgments concerning differences in financial and operating characteristics of the subject companies and other factors that could affect the public trading of such companies.

Based upon the above analysis, Ladenburg determined that the indicated value range of the Avigen assets to be acquired in the Merger was approximately $13.7 million to approximately $64.2 million.

Conclusion

Ladenburg noted that the minimum Net Merger Consideration of approximately $3.0 million is below Avigen s indicated asset value range (net of cash) and the maximum Net Merger Consideration of approximately $19.4 million is within Avigen s indicated asset value range (net of cash).

Based on the information and analyses set forth above, Ladenburg delivered its written opinion to MediciNova s board of directors, which stated that, as of August 20, 2009, based upon and subject to the assumptions made, matters considered, procedures followed and limitations on its review as set forth in the opinion, the Net Merger Consideration to be paid by MediciNova in the Merger is fair to MediciNova stockholders from a financial point of view.

As part of its investment banking business, Ladenburg regularly is engaged in the evaluation of businesses and their securities in connection with mergers, acquisitions, corporate restructurings, negotiated underwritings, private placements and for other purposes. MediciNova determined to use the services of Ladenburg because it is a recognized investment banking firm that has substantial experience in similar matters. Ladenburg has received a fee of $150,000 in connection with the preparation and issuance of its opinion, none of which is contingent on the closing of the Merger, and will be reimbursed for its reasonable expenses, including attorneys fees. Also, MediciNova has agreed to indemnify Ladenburg and related persons and entities for certain liabilities that may relate to, or arise out of, its engagement. Further, Ladenburg has not previously provided, nor are there any pending agreements to provide, any other services to MediciNova.

In the ordinary course of business, Ladenburg, certain of Ladenburg s affiliates, as well as investment funds in which Ladenburg or its affiliates may have financial interests, may acquire, hold or sell long or short positions, or trade or otherwise effect transactions in debt, equity, and other securities and financial instruments (including bank loans and other obligations) of, or investments in, MediciNova, Avigen, or any other party that may be involved in the Merger and their respective affiliates.

Under Ladenburg s policies and procedures, its fairness committee did not approve or issue this opinion and was not required to do so. Further, Ladenburg s opinion does not express an opinion about the fairness of the amount or nature of the compensation, if any, to any officers, directors or employees of any parties to the Merger, or class of such persons, relative to the Net Merger Consideration.

Opinion of RBC Capital Markets Corporation Financial Advisor to Avigen

On August 20, 2009, as financial advisor to Avigen s board of directors, RBC Capital Markets Corporation, or RBC, rendered its written opinion to Avigen s board of directors that, as of that date and subject to the assumptions, qualifications and limitations set forth in its opinion, the Merger Consideration payable in the Merger was fair, from a financial point of view, to Avigen stockholders. The full text of RBC s written opinion dated August 20, 2009 is attached to this proxy statement/prospectus as Annex G, and RBC has consented to the filing of its opinion as Annex G. RBC s opinion was approved by the RBC M&A Fairness Opinion Review Committee. **This summary of RBC s opinion is qualified in its entirety by reference to the full text of the opinion. Avigen urges you to read RBC s opinion carefully in its entirety for a description of the procedures followed, assumptions made, matters considered and limitations on the review undertaken by RBC.**

Table of Contents

RBC s opinion was provided for the information and assistance of Avigen s board of directors in connection with its consideration of the Merger. RBC s opinion did not address Avigen s underlying business decision to engage in the Merger or the relative merits of the Merger compared to any alternative business strategy or transaction in which Avigen might engage. RBC s opinion and the analyses performed by RBC in connection with its opinion and reviewed by Avigen s board of directors were only two of many factors taken into consideration by Avigen s board of directors in connection with its evaluation of the Merger. RBC believes that the stockholders of Avigen and other parties may take into consideration the recommendations of Avigen s board of directors regarding the Merger, but should not rely directly on RBC s opinion. RBC was not engaged by any stockholder of Avigen to render any opinion, advice or analysis related to the Merger, and RBC had no contractual obligation or duty to any stockholder of Avigen related to the Merger. **RBC s opinion does not constitute a recommendation to Avigen stockholders as to how Avigen stockholders should vote with respect to the Merger.**

Recent court decisions support RBC s belief that the stockholders of Avigen are not entitled to rely on RBC s opinion. In Edward T. Joyce, et al. v. Morgan Stanley & Co., Inc., 538 F.3d 797 (7th Cir. 2008), the United States Court of Appeals for the Seventh Circuit affirmed the dismissal of a stockholder suit against Morgan Stanley & Co., Inc., or MS, regarding a fairness opinion MS issued to 21st Century Telecom Group, Inc., or 21st Century, in connection with its merger with RCN Corporation. The plaintiff stockholders claimed that MS owed them a duty and that deficiencies in MS s fairness opinion resulted in a breach of that duty; the 7th Circuit disagreed. In arriving at its decision, the 7th Circuit focused on the following factors: (i) the plaintiff stockholders did not have a contractual relationship with MS; (ii) the plaintiff stockholders were not a party to the engagement agreement between MS and 21st Century pursuant to which MS agreed to prepare and deliver to 21st Century s board of directors its fairness opinion, nor were they third-party beneficiaries of such engagement; and (iii) as a result of (i) and (ii), MS only had a duty to 21st Century itself and not to the stockholders of 21st Century. Similarly, the Circuit Court of Cook County, Illinois recently entered an order on January 13, 2009 that is similarly relevant and instructive on the topic that financial advisors who issue fairness opinions to a company itself have no duty to the stockholders of that company (see Ron Young v. Goldman Sachs & Co., No. 08 CH 28542). However, the outcome of any case may depend on the particular facts, circumstances and issues presented in such case, and the availability of RBC s defense that stockholders of Avigen are not entitled to rely on RBC s opinion under applicable state law would be resolved by a court of competent jurisdiction. The question of availability of such a defense would have no effect on the rights and responsibilities of Avigen s board of directors under applicable state law. Finally, the availability of such a state law defense would have no effect on the rights and responsibilities of either RBC or Avigen s board of directors under the federal securities laws.

RBC s opinion addressed solely the fairness of the Merger Consideration payable in the Merger, from a financial point of view, to Avigen stockholders and did not in any way address other terms or arrangements of the Merger or the Merger Agreement, including, without limitation, the financial or other terms of any other agreement contemplated by, or to be entered into in connection with, the Merger Agreement. Further, in rendering its opinion, RBC expressed no opinion about the fairness of the amount or nature of the compensation to any of Avigen s officers, directors, or employees, or class of such persons, relative to the compensation to Avigen s public stockholders.

In rendering its opinion, RBC assumed and relied upon the accuracy and completeness of all information that was publicly available to RBC and all of the financial, legal, tax, operating, and other information provided to or discussed with it by Avigen, MediciNova and their representatives, including, without limitation, the financial statements of Avigen and MediciNova and related notes thereto. RBC did not assume responsibility for independently verifying, and did not independently verify, this information. RBC assumed that the financial estimates and forecasts of Avigen prepared by Avigen s management and reviewed by RBC were reasonably prepared reflecting the best currently available estimates and good faith judgments of the future financial estimates of Avigen as a standalone entity. RBC expressed no opinion as to those financial estimates and forecasts or the assumptions on which they were based. RBC did not assume any responsibility to perform, and did not perform, an independent evaluation or appraisal of any of the assets or liabilities of Avigen or MediciNova, and RBC was not furnished with any such valuations or appraisals. In addition, RBC did not

Table of Contents

assume any obligation to conduct, and did not conduct, any physical inspection of the property or facilities of Avigen. Additionally, RBC was not asked to, and did not consider, the possible effects of any litigation or other claims affecting Avigen. RBC did not investigate and made no assumption regarding the solvency of Avigen, MediciNova or Absolute Merger.

In rendering its opinion, RBC assumed, in all respects material to its analysis, that all conditions to the consummation of the Merger would be satisfied without waiver. RBC further assumed that the executed version of the Merger Agreement would not differ, in any respect material to its opinion, from the latest draft RBC received and reviewed on August 20, 2009.

RBC s opinion spoke only as of the date it was rendered, was based on the conditions as they existed and information with which RBC was supplied as of such date, and was without regard to any market, economic, financial, legal or other circumstances or events of any kind or nature which may exist or occur after such date. RBC has not undertaken to reaffirm or revise its opinion or otherwise comment on events occurring after the date of its opinion and does not have an obligation to update, revise or reaffirm its opinion. Unless otherwise noted, all analyses were performed based on market information available as of August 19, 2009, the trading day prior to which RBC finalized its analysis.

In connection with its review of the Merger and the preparation and rendering of its opinion, RBC undertook the review, inquiries and analyses it deemed necessary and appropriate under the circumstances, including:

- reviewing the financial terms of the draft Merger Agreement received by RBC on August 20, 2009;
- reviewing and analyzing certain publicly available financial and other data with respect to Avigen and MediciNova and certain other relevant historical operating data relating to Avigen and MediciNova made available to RBC from published sources and from the internal records of Avigen and MediciNova;
- conducting discussions with members of the senior managements of Avigen and MediciNova with respect to the business prospects and financial outlook of Avigen and MediciNova;
- reviewing historical financial information relating to Avigen and MediciNova;
- reviewing financial data, estimates and forecasts of Avigen as a standalone entity, including a liquidation analysis, prepared by Avigen management;
- reviewing IBES, First Call, publicly available equity research reports and Thomson One Analytics consensus estimates regarding the potential future performance of MediciNova;
- reviewing the reported prices and trading activity for Avigen common stock and MediciNova common stock;
- performing a Black-Scholes analysis to assess the valuation of the Convertible Notes; and
- considering such other information and performing other studies and analyses as RBC deemed appropriate, including recent developments with respect to Avigen s business.

In arriving at its opinion, in addition to reviewing the matters listed above, RBC performed the following analyses:

RBC compared the aggregate value of the Merger Consideration pursuant to a cash election to the aggregate liquidation value of Avigen based upon estimates provided to RBC by Avigen management;

RBC compared the net present value of the Merger Consideration pursuant to a cash election to the net present value of the liquidation of Avigen based upon estimates provided to RBC by Avigen management;

RBC compared the aggregate value of the Merger Consideration pursuant to a Convertible Note election to the aggregate liquidation value of Avigen based upon estimates provided to RBC by Avigen management; and

Table of Contents

RBC compared the net present value of the Merger Consideration pursuant to a Convertible Note election to the net present value of the liquidation of Avigen based upon estimates provided to RBC by Avigen management.

In connection with the rendering of its opinion to Avigen s board of directors, RBC reviewed with Avigen s board of directors the analyses listed above and other information material to the opinion. RBC informed Avigen s board of directors that it did not perform a comparable companies analysis since, as of the date of RBC s opinion, Avigen had announced its intention to develop a plan of liquidation and therefore Avigen did not intend to otherwise have on-going operations as a standalone entity. RBC informed Avigen s board of directors that it did not perform a comparable precedent transactions analysis because, based on its own research, RBC determined it was not aware of any precedent transactions sufficiently comparable to the Merger to adequately perform such an analysis. RBC informed Avigen s board of directors that it did not perform a discounted cash flow analysis because, as of the date of RBC s opinion, Avigen had announced its intention to develop a plan of liquidation and therefore Avigen did not intend to otherwise have on-going operations as a standalone entity. Furthermore, Avigen management had not provided to RBC financial projections beyond the liquidation estimates provided to RBC. Finally, RBC informed Avigen s board of directors that it did not perform a market premium analysis of the Merger Consideration because the trading of Avigen common stock had been affected by multiple public announcements relating to a potential merger and a potential liquidation of Avigen. RBC noted that Avigen stock had closed at the following per share prices on various dates: (1) $0.65 the day prior to MediciNova s initial unsolicited offer was publicly announced on December 23, 2008, (2) $0.87 the day prior to the Avigen announcing it had engaged RBC and Pacific Growth to explore Avigen s strategic alternatives on January 14, 2009, (3) $1.16 the day prior to Avigen announcing its intention to develop a plan of liquidation on March 26, 2009, (4) $1.31 the day prior to MediciNova and Avigen announcing the companies had entered into a memorandum of understanding regarding a potential merger transaction on June 25, 2009 and (5) $1.34 on August 19, 2009, the last trading day prior to RBC s opinion.

Set forth below is a summary of the analyses used by RBC, including information presented in tabular format. To fully understand the summary of the analyses used by RBC, the table must be read together with the text summarizing the analyses. The table alone does not constitute a complete description of the analyses.

Implied Merger Consideration. RBC based the following per share estimates of the Merger Consideration on the 29.8 million shares of Avigen common stock outstanding as of August 20, 2009 calculated using the treasury stock method and based upon shares outstanding and options and warrants data as provided to RBC by Avigen management.

RBC derived the implied range of value of the Merger Consideration pursuant to a cash election by assuming that, in addition to the initial consideration distributed to stockholders in cash upon closing, the full estimated amounts of the escrow, first milestone payment under the Genzyme Agreement of $6.0 million and management transition plan excess funds of approximately $500,000, without deduction, would be distributed in the future to Avigen stockholders for the high estimate and no such future payments would be distributed to Avigen stockholders for the low estimate. This analysis resulted in an implied per share valuation of the Merger Consideration pursuant the cash election of $1.19 per Avigen share as a low estimate and $1.46 as a high estimate in total aggregate future value and $1.19 per share as the low estimate and $1.45 as the high estimate in total present value based upon the assumed timing of the distributions and an assumed annual discount rate applied to future payments.

RBC derived the implied range of value of the Merger Consideration pursuant to a Convertible Note election by assuming that, in addition to the initial consideration distributed to stockholders in the form of a Convertible Note upon closing, (1) the full estimated amounts of the escrow, first milestone payment under the Genzyme Agreement and management transition plan excess funds, without deduction, would be distributed in the future to Avigen stockholders for the high estimate and no such future payments would be distributed to Avigen stockholders for the low estimate, and (2) the full option value of the Convertible Note, calculated as of

Table of Contents

August 19, 2009 using Black-Scholes analysis was included for the high estimate and was not included (based upon an assumed scenario where the Convertible Note would never be exercised) for the low estimate. To calculate the estimated embedded option value of the Convertible Notes, RBC utilized the Black-Scholes option valuation methodology. RBC did not apply any liquidity discount. The following inputs were used in the Black-Scholes calculation:

- MediciNova stock price of $7.12 per share (the closing price of MediciNova common stock on August 17, 2009);
- exercise price of $6.80;
- term of 1.5 years;
- standard deviation of 0.69; and
- risk free rate of 1.06 percent.

This analysis resulted in an implied per share valuation of the Merger Consideration pursuant to the Convertible Note election of $1.19 per Avigen share as a low estimate and $1.91 as a high estimate in total aggregate future value and $1.03 per share as the low estimate and $1.74 as the high estimate in total present value based upon the assumed timing of the distributions and the assumed annual discount rate applied to future payments.

Avigen Liquidation Analysis. RBC performed a liquidation analysis of Avigen s assets to calculate a potential low estimate and a potential high estimate of net cash available for distribution upon an orderly liquidation of Avigen, based on internal estimates provided to RBC by Avigen management as to the potential market value of Avigen s assets, the amount of Avigen s current liabilities and the estimated amount of fees and expenses associated with a liquidation. RBC derived the potential range of net cash that would be available for distribution from an orderly liquidation of Avigen by assuming that (1) the value potentially available for Avigen s non-cash assets (including, but not limited to, an asset sale of AV411 valued at $3.0 million (based upon the non-binding term sheet for the cash purchase of AV411 that had been submitted by Suitor A on June 22, 2009) and achievement and payment of the first milestone payment under the Genzyme Agreement valued at $6.0 million) would be realized for the high estimate and not realized for the low estimate; and (2) an amount withheld from initial distribution to Avigen stockholders for additional liabilities and expenses of approximately $4.0 million would be later distributed for the high estimate but not distributed for the low estimate. This liquidation analysis resulted in a low estimate of $0.99 per Avigen share and a high estimate of $1.44 per Avigen share in total aggregate future value and the low estimate of $0.99 per Avigen share and the high estimate of $1.40 per Avigen share in total present value based upon the assumed timing of the distributions and the assumed annual discount rate applied to future payments.

The following table summarizes the per share estimates under these analyses:

	Low End of Valuation Range			High End of Valuation Range		
	Liquidation	Cash Election	Convertible Note Election	Liquidation	Cash Election	Convertible Note Election
Total Aggregate Future Value	$ 0.99	$ 1.19	$ 1.19	$ 1.44	$ 1.46	$ 1.91
Total Present Value	$ 0.99	$ 1.19	$ 1.03	$ 1.40	$ 1.45	$ 1.74

RBC noted that it was appropriate to compare the low estimate of the liquidation analysis to the low estimates for each type of Merger Consideration because each of those estimates assumed no payment for the first milestone under the Genzyme Agreement or excess management transition plan and assumed that liabilities and expenses

would exceed the escrow amount. RBC noted that the low estimate of the implied per share value of the Merger Consideration for both the cash election and Convertible Note election was higher than the low estimate of liquidation value per share on both an aggregate future value basis and the assumed present value basis.

RBC noted that it was appropriate to compare the high estimate of the liquidation analysis to the high estimates for each type of Merger Consideration because each of those estimates assumed comparable payments for the sale of the AV411 asset, the first milestone payment under the Genzyme Agreement and excess management transition plan and assumed that liabilities and expenses would not exceed estimates provided by Avigen management. RBC noted that the high estimate of the implied per share value of the Merger Consideration for both the cash election and Convertible Note election was higher than the high estimate of liquidation value per share on both an aggregate future value basis and the assumed present value basis.

Overview of Analyses; Other Considerations. In reaching its opinion, RBC did not assign any particular weight to any one analysis or the results yielded by any one analysis. Rather, having reviewed these results in the aggregate, RBC exercised its professional judgment in determining that, based on the aggregate of the analyses used and the results they yielded, the Merger Consideration was fair, from a financial point of view, to Avigen stockholders. RBC believed that it was inappropriate to, and therefore did not, rely solely on the quantitative results of the analyses and, accordingly, also made qualitative judgments in its analysis, which are not entirely mathematical. Rather, the analyses involve complex considerations and judgments concerning financial and operating characteristics and other factors that could affect the analyses. The analyses were prepared solely for purposes of RBC providing an opinion as to the fairness of the Merger Consideration, from a financial point of view, to Avigen stockholders and do not purport to be appraisals or necessarily reflect the prices at which businesses or securities actually may be sold, which are inherently subject to uncertainty.

The opinion of RBC as to the fairness of the Merger Consideration, from a financial point of view, to Avigen stockholders was necessarily based upon market, economic, and other conditions that existed as of the date of its opinion and on information available to RBC as of that date.

The preparation of a fairness opinion is a complex process that involves the application of subjective business judgment in determining the most appropriate and relevant methods of financial analysis and the application of those methods to the particular circumstances. Several analytical methodologies were used by RBC and no one method of analysis should be regarded as critical to the overall conclusion reached. Each analytical technique has inherent strengths and weaknesses, and the nature of the available information may further affect the value of particular techniques. The overall conclusions of RBC were based on all the analyses and factors presented herein taken as a whole and also on application of RBC s own experience and judgment. Such conclusions may involve significant elements of subjective judgment and qualitative analysis. RBC therefore believes that its analyses must be considered as a whole and that selecting portions of the analyses and of the factors considered, without considering all factors and analyses, could create an incomplete or misleading view of the processes underlying its opinion.

In connection with its analyses, RBC made, and was provided by Avigen s management with, numerous assumptions with respect to industry performance, general business and economic conditions and other matters, many of which are beyond Avigen s control. Analyses based upon forecasts of future results are not necessarily indicative of actual future results, which may be significantly more or less favorable than suggested by these analyses. Because these analyses are inherently subject to uncertainty, being based upon numerous factors or events beyond the control of Avigen or its advisors, none of Avigen, RBC or any other person assumes responsibility if future results or actual values are materially different from these forecasts or assumptions.

Avigen s board of directors selected RBC to render its opinion based on RBC s familiarity with Avigen s industry and RBC s focus on small cap companies. RBC has advised on numerous acquisitions of unaffiliated third parties in the healthcare and biotechnology markets. In receiving and taking into consideration RBC s opinion dated August 20, 2009, Avigen s board of directors was aware of other investment banking and financial advisory services that RBC had provided to Avigen, referred to below in this section. RBC is an internationally

Table of Contents

recognized investment banking firm and is regularly engaged in the valuation of businesses and their securities in connection with mergers and acquisitions, corporate restructurings, underwritings, secondary distributions of listed and unlisted securities, private placements, and valuations for corporate and other purposes. In the ordinary course of business, RBC may act as a market maker and broker in the publicly-traded securities of Avigen and MediciNova and receive customary compensation, and may also actively trade securities of Avigen and MediciNova for its own account and the accounts of its customers, and, accordingly, RBC and its affiliates may hold a long or short position in such securities.

Under its engagement agreement with Avigen dated January 13, 2009, as amended March 20, 2009, April 23, 2009 and June 3, 2009, or the RBC Engagement Letter, RBC became entitled to receive a fee of $300,000 upon the delivery of its August 20, 2009 opinion to Avigen s board of directors regarding the fairness to Avigen stockholders, from a financial point of view, of the Merger Consideration, without regard to whether RBC s opinion was accepted or the Merger is consummated. In addition, for its services as financial advisor to Avigen in connection with the Merger, if the Merger is successfully completed, RBC will be entitled to receive an additional, larger transaction success fee of approximately $1,050,000, against which the fee payable for the delivery of RBC s August 20, 2009 opinion will be credited and an additional $550,000 previously paid by Avigen to RBC for additional services and a retainer fee under the RBC Engagement Letter will also be credited, resulting in a net payment to RBC of an additional $200,000. In the event that RBC is requested to, and does, render to Avigen s board of directors any additional opinions with respect to the fairness, from a financial point of view, to Avigen stockholders of the consideration offered in any alternative transactions considered by the Avigen s board of directors as permitted by the Merger Agreement, RBC would be entitled to receive an additional fee of $300,000 for each such opinion upon its delivery, without regard to whether the Merger or any such alternative transaction were consummated, and any such additional opinion fee would not be credited against the transaction success fee payable to RBC were the Merger or alternative transaction consummated. In addition, whether or not the Merger is completed, or an alternate transaction occurs, Avigen has agreed to indemnify RBC for certain liabilities that may arise out of RBC s engagement, including, without limitation, liabilities arising under the federal securities laws, and to reimburse the reasonable out-of-pocket expenses incurred by RBC in performing its services (subject to a limit which may not be exceeded without Avigen s written approval). The terms of the RBC Engagement Letter were negotiated at arm s-length between Avigen and RBC, and Avigen s board of directors was aware of this fee arrangement at the time they reviewed and approved the Merger Agreement.

In the past two years, RBC has provided the following investment banking and financial advisory services to Avigen, in addition to its services as financial advisor to the board of directors in connection with the Merger: (1) in 2009, RBC acted as financial advisor to the Avigen board of directors in connection with strategic defense analysis and services for which RBC received a defense fee of $500,000 that will be credited against the contingent transaction success fee RBC will receive if the Merger is completed (as provided for in the RBC Engagement Letter); and (2) in 2009, RBC acted as financial advisor to the Avigen board of directors in connection with an unsolicited offer by MediciNova and, in that capacity, among other things, RBC delivered an adequacy opinion to Avigen s board of directors dated April 23, 2009 as to the adequacy, from a financial point of view, of the consideration payable to the Avigen stockholders in connection with the unsolicited offer, for which RBC received a fee of $300,000 that was credited against the defense fee described above (as provided for in the RBC Engagement Letter).

Listing of Shares of MediciNova Common Stock Issuable Upon Conversion of the Convertible Notes

MediciNova will use commercially reasonable efforts to authorize for listing on Nasdaq, prior to the effective time of the Merger, the shares of MediciNova common stock issuable upon conversion of the Convertible Notes, subject to official notice of issuance.

Delisting and Deregistration of Avigen Common Stock

If the Merger is completed, Avigen common stock will be delisted from Nasdaq and deregistered under the Exchange Act. Avigen also will cease to be a reporting company under the Exchange Act.

Table of Contents

Anticipated Accounting Treatment

In accordance with GAAP, MediciNova will account for the Merger under the acquisition method of accounting in accordance with the authoritative guidance on business combinations under ASC 805 (formerly SFAS No. 141(R), Business Combinations (Revised)). Under the acquisition method of accounting, the total estimated purchase price, calculated as described in Note 2 to the unaudited pro forma condensed combined financial statements included in this joint proxy statement/prospectus, is allocated to the net tangible and intangible assets of Avigen based on their estimated fair values. MediciNova s management has made a preliminary allocation of the estimated purchase price to the tangible and intangible assets acquired and liabilities assumed based on various preliminary estimates. A final determination of the estimated fair values and the allocation to tangible and intangible assets will be based on the detailed fair valuation analysis to be performed by an independent valuation firm by the Merger closing date, or shortly thereafter.

Litigation Challenging the Merger

On August 24, 2009, The Pennsylvania Avenue Funds, an Avigen stockholder, filed a complaint in Alameda County Superior Court alleging that Avigen s directors breached their fiduciary duties in connection with the proposed transaction with MediciNova. On October 15, 2009, The Pennsylvania Avenue Funds filed an amended complaint adding MediciNova as a defendant. In the amended complaint, The Pennsylvania Avenue Funds alleged, among other things, that MediciNova aided and abetted the alleged breach of fiduciary duties by the Avigen directors. The Pennsylvania Avenue Funds purportedly brings the action on behalf of a stockholder class and may seek injunctive relief, compensatory and rescissory damages, and attorney s fees. If the suit is successful, the court may enjoin the Merger or order other remedies. MediciNova and Avigen believe that the allegations are without merit and intend to vigorously defend against this action.

Appraisal Rights of Dissenting Avigen Stockholders

In connection with the Merger, record holders of Avigen common stock who comply with the procedures summarized below will be entitled to appraisal rights if the Merger is consummated. The following discussion is not a complete discussion of the law pertaining to appraisal rights under Section 262 of the General Corporation Law of the State of Delaware, or Section 262, and is qualified in its entirety by the full text of Section 262 which is attached to this joint proxy statement/prospectus as Annex H. The following summary does not constitute any legal or other advice, nor does it constitute a recommendation that Avigen stockholders exercise their right to seek appraisal under Section 262. All references in Section 262 and in this summary to a stockholder are to the record holder of the shares of Avigen common stock as to which appraisal rights are asserted. A person having a beneficial interest in shares of Avigen common stock held of record in the name of another person, such as a broker, fiduciary, depositary or other nominee, must act promptly to cause the record holder to follow the steps summarized below properly and in a timely manner to perfect appraisal rights.

Under Section 262, holders of shares of Avigen common stock who do not vote in favor of adoption of the Merger Agreement and the transactions contemplated thereby, including the Merger, and who otherwise follow the procedures set forth in Section 262 will be entitled to have their shares appraised by the Delaware Court of Chancery and to receive payment of the fair value of the shares, exclusive of any element of value arising from the accomplishment or expectation of the Merger, together with a fair rate of interest, if any, as determined by the Court.

Under Section 262, where a merger is to be submitted for approval at a meeting of stockholders, as in the case of the adoption of the Merger Agreement and the transactions contemplated thereby, including the Merger, by Avigen stockholders, the corporation, not less than 20 days prior to the meeting, must notify each of its stockholders entitled to appraisal rights that appraisal rights are available and include in the notice a copy of Section 262. This joint proxy statement/prospectus shall constitute the notice, and the full text of Section 262 is attached to this joint proxy statement/prospectus as Annex H. Any holder of Avigen common stock who wishes to exercise appraisal rights or who wishes to preserve such holder s right to do so, should review the following discussion and Annex H carefully because failure to timely and properly comply with the procedures specified

Table of Contents

will result in the loss of appraisal rights. Due to the complexity of the procedures for exercising the right to seek appraisal, Avigen stockholders who are considering exercising such rights are urged to seek the advice of legal counsel.

Neither voting against the adoption of the Merger Agreement and the transactions contemplated thereby, including the Merger (either in person or by proxy), nor abstaining from voting or failing to vote on the proposal to adopt the Merger Agreement and the transactions contemplated thereby, including the Merger, will in and of itself constitute a written demand for appraisal satisfying the requirements of Section 262. The written demand for appraisal must be in addition to and separate from any proxy or vote. The demand must reasonably inform Avigen of the identity of the holder as well as the intention of the holder to demand an appraisal of the fair value of the shares held by the holder. A stockholder s failure to make the written demand prior to the taking of the vote on the adoption of the Merger Agreement and the transactions contemplated thereby, including the Merger, at the Avigen special meeting will constitute a waiver of appraisal rights.

Only a holder of record of shares of Avigen common stock on the record date for the Avigen special meeting is entitled to assert appraisal rights for the shares registered in that holder s name. A demand for appraisal in respect of shares of Avigen common stock should be executed by or on behalf of the holder of record, fully and correctly, as the holder s name appears on the holder s stock certificates, should specify the holder s mailing address and the number of shares registered in the holder s name, and must state that the person intends to demand appraisal of the holder s shares. If the shares are owned of record in a fiduciary capacity, such as by a trustee, guardian or custodian, execution of the demand should be made in that capacity. If the shares are owned of record by more than one person, as in a joint tenancy and tenancy in common, the demand should be executed by or on behalf of all joint owners. An authorized agent, including an agent for two or more joint owners, may execute a demand for appraisal on behalf of a holder of record. However, the agent must identify the record owner or owners and expressly disclose the fact that, in executing the demand, the agent is acting as agent for the record owner or owners. A record holder such as a broker who holds shares as nominee for several beneficial owners may exercise appraisal rights with respect to the shares held for one or more beneficial owners while not exercising the rights with respect to the shares held for other beneficial owners. In such case, however, the written demand should set forth the number of shares as to which appraisal is sought. If no number of shares is expressly mentioned, the demand will be presumed to cover all shares of Avigen common stock held in the name of the record owner. Stockholders who hold their shares in brokerage accounts or other nominee forms and who wish to exercise appraisal rights are urged to consult with their brokers to determine the appropriate procedures for the making of a demand for appraisal by such a nominee.

An Avigen stockholder of record who elects to demand appraisal of his or her shares must mail or deliver his or her written demand to: Avigen, Inc., 1301 Harbor Bay Parkway, Alameda, California 94502, Attention: Corporate Secretary. The written demand for appraisal should specify the stockholder s name and mailing address, the number of shares owned, and that the stockholder is thereby demanding appraisal of his, her or its shares, and such written demand must be received by Avigen prior to the special meeting.

In addition, an Avigen stockholder who desires to exercise appraisal rights must not vote its shares of common stock in favor of adoption of the Merger Agreement. A vote in favor of adoption of the Merger Agreement, by proxy or in person, will constitute a waiver of appraisal rights and will nullify any previously filed written demands for appraisal. Because a proxy that is signed and does not contain voting instructions will, unless revoked, be voted in favor of adoption of the Merger Agreement, a stockholder who votes by proxy and who wishes to exercise appraisal rights must vote against the adoption of the Merger Agreement or abstain from voting on the adoption of the Merger Agreement.

Within ten days after the effective time of the Merger, Avigen or its successor in interest, or the surviving corporation, must notify each holder of Avigen common stock who has complied with Section 262 and who has not voted in favor of the adoption of the Merger Agreement that the Merger has become effective and shall include in such notice a copy of Section 262. Within 120 days after the effective time of the Merger, the surviving corporation or any stockholder who has timely and properly demanded appraisal of his or her shares and who has complied with the required conditions of Section 262 and is otherwise entitled to appraisal rights

Table of Contents

may commence an appraisal proceeding by filing a petition in the Delaware Court of Chancery demanding a determination of the fair value of the shares of all Avigen stockholders who have properly demanded appraisal. The surviving corporation is under no obligation to and has no present intention to file a petition. Accordingly, it is the obligation of the holders of Avigen common stock to initiate all necessary action to perfect their appraisal rights in respect of shares of Avigen common stock within the time prescribed in Section 262.

Within 120 days after the effective time of the Merger, any holder of Avigen common stock who has complied with the requirements for exercise of appraisal rights will be entitled, upon written request, to receive from the surviving corporation a statement setting forth the aggregate number of shares of Avigen common stock not voted in favor of the adoption of the Merger Agreement and the aggregate number of shares that have made demands for appraisal. The statement must be mailed within ten days after a written request has been received by the surviving corporation or within ten days after the expiration of the period for delivery of demands for appraisal, whichever is later.

If a petition for an appraisal is timely filed by a holder of shares of Avigen common stock and a copy is served upon the surviving corporation, the surviving corporation will then be obligated within 20 days to file with the Delaware Register in Chancery a duly verified list containing the names and addresses of all stockholders who have demanded an appraisal of their shares and with whom agreements as to the value of their shares have not been reached. After notice to the stockholders as required by the Court, the Delaware Court of Chancery is empowered to conduct a hearing on the petition to determine those stockholders who have complied with Section 262 and who have become entitled to appraisal rights thereunder. The Delaware Court of Chancery may require the stockholders who demanded payment for their shares to submit their stock certificates to the Register in Chancery for notation on the certificates of the pending appraisal proceeding. If any stockholder fails to comply with the direction, the Delaware Court of Chancery may dismiss the proceedings as to that stockholder.

After determining the holders of Avigen common stock entitled to appraisal, the Delaware Court of Chancery will determine the fair value of shares of the Avigen common stock exclusive of any element of value arising from the accomplishment or expectation of the Merger, together with interest, if any, to be paid upon the amount determined to be the fair value.

In determining fair value, and, if applicable, a fair rate of interest, the Delaware Court of Chancery is to take into account all relevant factors. Accordingly, the fair value of shares of common stock as determined under Section 262 could be more than, the same as, or less than the Merger Consideration a stockholder is entitled to receive pursuant to the Merger Agreement if he, she or it does not seek appraisal of their shares, and that opinions of investment banking firms as to the fairness from a financial point of view of the Merger Consideration payable in any merger transaction are not opinions as to fair value under Section 262.

The cost of the appraisal proceeding (which does not include attorneys fees or the fees or expenses of experts) may be determined by the Delaware Court of Chancery and levied upon the parties as the Delaware Court of Chancery deems equitable in the circumstances. Upon application of a stockholder seeking appraisal rights, the Delaware Court of Chancery may order that all or a portion of the expenses incurred by such stockholder in connection with the appraisal proceeding, including, without limitation, reasonable attorneys fees and the fees and expenses of experts, be charged pro rata against the value of all shares entitled to appraisal. In the absence of such a determination of assessment, each party bears its own expenses.

Except as explained in the last sentence of this paragraph, at any time within 60 days after the effective time of the Merger, any stockholder who has not commenced an appraisal proceeding or joined that proceeding as a named party will have the right to withdraw his or her demand for appraisal and to accept the Merger Consideration to which such stockholder is entitled pursuant to the Merger. After this period, such holder may withdraw his, her or its demand for appraisal only with the consent of the surviving corporation. If no petition for appraisal is filed with the Delaware Court of Chancery within 120 days after the effective time of the Merger, Avigen stockholders rights to appraisal will cease and all Avigen stockholders will be entitled only to receive the Merger Consideration as provided for in the Merger Agreement.

Table of Contents

CERTAIN TERMS OF THE MERGER AGREEMENT AND THE CPR AGREEMENT

The following description is a summary of the material provisions of the Merger Agreement, the CPR Agreement and certain other transaction documents and does not purport to be complete. This summary is subject to and is qualified in its entirety by all the provisions of the Merger Agreement, the CPR Agreement and the other transaction documents. The full text of the Merger Agreement and the form of the CPR Agreement is attached as Annex A and Annex B, respectively, to this joint proxy statement/prospectus and are incorporated herein by reference. MediciNova and Avigen stockholders are encouraged to read carefully the entire Merger Agreement, CPR Agreement and the other annexes to this joint proxy statement/prospectus.

The Merger Agreement, the CPR Agreement and the other annexes attached to this joint proxy statement/prospectus are included to provide investors and stockholders with information regarding their respective terms. These agreements are not intended to provide any other factual information about MediciNova or Avigen. The Merger Agreement, the CPR Agreement and the other agreements attached as annexes to this joint proxy statement/prospectus contain representations and warranties that the parties thereto made to, and solely for the benefit of, each other, and such representations and warranties may be subject to standards of materiality applicable to the contracting parties that differ from those applicable to investors. The assertions embodied in the representations and warranties in the Merger Agreement are qualified by certain information in confidential disclosure letters that MediciNova and Avigen delivered in connection with the execution of the Merger Agreement. Accordingly, investors and security holders should not rely on the representations and warranties as characterizations of the actual state of facts. Moreover, information concerning the subject matter of the representations and warranties may change after the date of the Merger Agreement, which subsequent information may or may not be fully reflected in MediciNova s or Avigen s public disclosures.

Merger Agreement

The Merger

At the effective time of the Merger, MediciNova s wholly-owned subsidiary, Absolute Merger, will be merged with and into Avigen, with Avigen continuing as the surviving corporation. Upon completion of the Merger, the directors and officers of Absolute Merger immediately prior to the Merger will become the directors and officers of the surviving corporation.

Effective Time of the Merger

The Merger Agreement provides that the Merger will become effective when a certificate of merger executed by Absolute Merger is delivered to and filed with the Delaware Secretary of State, or such other date and time agreed to by the parties and specified in the certificate of merger. It is anticipated that the effective time of the Merger will occur as soon as practicable on the closing date of the Merger.

Manner and Basis of Converting Shares

Under the terms of the Merger Agreement, at the effective time of the Merger, each share of Avigen common stock (and the associated preferred stock purchase right) will be cancelled and extinguished and automatically converted into the right to receive:

one of the following:

- for each share of Avigen common stock with respect to which an election to receive cash has been made, the right to receive cash equal to the First Payment Consideration and Second Payment Consideration, if any;

- for each share of Avigen common stock for which an election to receive Convertible Notes has been made, the right to receive one Convertible Note with a face value equal to the First Payment Consideration and Second Payment Consideration, if any; or

Table of Contents

for each share of Avigen common stock with respect to which no valid election has been made, the right to receive cash equal to 50 percent of the First Payment Consideration and Second Payment Consideration, if any, and Convertible Notes with a face value equal to 50 percent of the First Payment Consideration and Second Payment Consideration, if any; and

one CPR granting the holder thereof the rights described under the section entitled Contingent Payment Rights below.

As used in this joint proxy statement/prospectus, the term Merger Consideration refers to either (1) the combination of Convertible Notes and one CPR, (2) the combination of cash equal to the First Payment Consideration and the Second Payment Consideration, if any, and one CPR or (3) the combination of cash equal to 50 percent of the First Payment Consideration and Second Consideration, if any, and Convertible Notes with a face value equal to 50 percent of the First Payment Consideration and the Second Payment Consideration, if any, and one CPR.

Under the terms of the Merger Agreement, as soon as reasonably practicable following the effective time of the Merger, American Stock Transfer & Trust Company, LLC, which has been selected by MediciNova to act as exchange agent, will mail to each record holder of Avigen common stock a letter of transmittal and instructions for use, which record holders will use to exchange Avigen stock certificates for the Merger Consideration. Avigen stock certificates should not be surrendered for exchange by Avigen stockholders before the effective time of the Merger.

After the effective time of the Merger, transfers of Avigen common stock will not be registered on the stock transfer books of Avigen (other than to settle transfers of Avigen common stock that occurred prior to the effective time of the Merger), and each certificate that previously evidenced Avigen common stock will be deemed to evidence the right to receive the Merger Consideration.

First Payment Consideration

The First Payment Consideration is equal to $35,461,000 divided by the number of shares of Avigen common stock outstanding immediately prior to the effective time of the Merger. The aggregate First Payment Consideration is subject to downward adjustment (on a dollar for dollar basis) in the event that the aggregate cash liquidation proceeds of the marketable securities and restricted investments held by Avigen as of June 30, 2009 are less than $27,721,000. In the event that, prior to the effective time of the Merger, Avigen sells or otherwise disposes of its rights to the first milestone payment under the Genzyme Agreement, the aggregate First Payment Consideration will be increased by the amount received by Avigen pursuant to such transaction. In addition, in the event that, prior to the effective time of the Merger, Avigen sells or otherwise disposes of all of its rights under the Genzyme Agreement, the aggregate First Payment Consideration will be increased by the amount received by Avigen pursuant to such transaction less 50 percent of all amounts received by Avigen pursuant to such transaction in excess of $6,000,000.

Second Payment Consideration

The Second Payment Consideration is equal to $1,500,000, divided by the number of shares of Avigen common stock outstanding immediately prior to the effective time of the Merger, or approximately $0.05 per share of Avigen common stock, subject to certain adjustments described more fully below. The aggregate Second Payment Consideration is subject to upward adjustment based on savings in estimated expenses through closing and receipt of certain payments post-closing as well as downward adjustment in the event that actual closing liabilities exceed estimated liabilities through closing. For example, to the extent salaries paid by Avigen from June 30, 2009 to closing exceed $298,530, the aggregate Second Payment Consideration would be reduced by such excess. The Second Payment Consideration will be equal to the amount remaining in the escrow account described herein following satisfaction of the demand amount, as adjusted by the selected amount, divided by the number of shares of Avigen common stock outstanding immediately prior to the effective time of the Merger.

Table of Contents

Under the terms of an escrow agreement to be entered into at the time of completion of the Merger, the form of which is attached as Annex E hereto, Avigen will deposit in an escrow account $1,500,000, or approximately $0.05 per share of Avigen common stock, plus the amount by which the aggregate cash liquidation proceeds of its marketable securities and restricted investments held as of June 30, 2009 exceed $28,021,000. After closing, MediciNova also will deposit into the escrow account certain payments, including royalties pursuant to an agreement between Avigen and Advanced Cell Technology, Inc., or ACT, if any, received during the escrow period and excess cash amounts collected from subtenants at Avigen s current headquarters, to the extent such payments exceed specified amounts agreed upon by the parties. In connection with a 2008 settlement agreement for unpaid sublease rent, ACT assigned to Avigen 62.5 percent of its right, title and interest in all royalties and 65 percent of its right, title and interest to all other consideration payable to ACT under an Exclusive License and Partnering Agreement between ACT and Embryome Sciences, Inc., or Embryome, until such time as Avigen received total royalty and other payments equal to $475,000. As of September 30, 2009, Avigen had not received any royalty or other payments related to the ACT settlement agreement.

On or prior to June 30, 2010, MediciNova will be entitled to submit one demand certificate to claim all or a portion of the funds in the escrow account, or the demand amount, with respect to certain additional liabilities of Avigen related to its business activities and operations prior to the effective time of the Merger, including any amounts paid to current or former directors and officers of Avigen in connection with releases delivered by such individuals under the Merger Agreement, liabilities in excess of specified amounts agreed upon by the parties and the expenses of the representative of the Avigen stockholders incurred in connection with the Merger Agreement and the CPR Agreement. Upon delivery of MediciNova s demand certificate, amounts in the escrow account that are not being demanded in satisfaction of additional liabilities will be released to Avigen s former stockholders on a pro rata basis. A stockholder representative will be entitled to dispute the demand amount, and an independent accounting firm will resolve any unresolved dispute between MediciNova and the stockholder representative with respect to the demand amount. Prior to resolution of any dispute regarding the demand amount, all amounts set forth in the demand certificate that are not being contested by the stockholder representative will be released to MediciNova.

Following resolution of the dispute regarding the demand amount, which requires the independent accounting firm to select either the amount demanded by MediciNova or the amount of such demand as adjusted by the amounts contested by the stockholder representative as the numerical amount it believes is the accurate amount of additional liabilities, or the selected amount, MediciNova will receive an amount reflecting any adjustments resulting from the selected amount. Any remaining amounts in the escrow account then will be released to Avigen s former stockholders on a pro rata basis.

Stock Options

All of the unexercised and outstanding stock options under Avigen s existing equity compensation plans will be cancelled at or prior to the effective time of the Merger and holders will cease to have any rights with respect to such options.

Warrants

Effective as of immediately prior to the effective time of the Merger, the existing warrant issued by Avigen to University License Equity Holdings, Inc., an affiliate of the University of Colorado, to acquire 15,000 shares of Avigen common stock will be converted into a new warrant entitling its holder to receive, in lieu of the shares of Avigen common stock theretofore issuable upon exercise or conversion of the existing warrant, the Merger Consideration that would have been receivable upon the Merger by the holder of the existing warrant if it had been exercised, and a cash election had been made, immediately prior to the effective time of the Merger.

Table of Contents

Representations and Warranties

The Merger Agreement contains customary representations and warranties of MediciNova, Absolute Merger and Avigen relating to certain aspects of the respective businesses and assets of the parties and other matters. The representations and warranties expire at the effective time of the Merger.

Avigen s Conduct of Business Prior to the Merger

During the period from the date of the Merger Agreement and continuing until the earlier of its termination of or the effective time of the Merger, Avigen generally has agreed to:

- carry on its business in the usual, regular and ordinary course, in substantially the same manner as previously conducted;
- pay its material debts and taxes when due and pay or perform other material obligations when due, except in each case with respect to those being contested in good faith by appropriate proceedings; and
- use commercially reasonable efforts to (1) preserve substantially intact its current business organization, (2) keep available the services of its current executive officers and employees and (3) preserve substantially intact its relationships with suppliers, licensors, licensees and others with which it has business dealings.

In addition, subject to limited exceptions, during the period from the date of the Merger Agreement and continuing until the earlier of its termination or the effective time of the Merger, Avigen has agreed not do any of the following without the prior written consent of MediciNova:

- enter into any new line of business;
- declare, set aside or pay any dividends on or make any other distributions (whether in cash, stock, equity securities or property) in respect of any capital stock or split, combine or reclassify any capital stock or issue or authorize the issuance of any other securities in respect of, in lieu of or in substitution for any capital stock;
- purchase, redeem or otherwise acquire, directly or indirectly, any shares of capital stock;
- issue, deliver, sell, authorize, pledge or otherwise encumber any shares of capital stock, voting debt or any securities convertible into shares of capital stock or voting debt, or subscriptions, rights, warrants or options to acquire any shares of capital stock or voting debt or any securities convertible into shares of capital stock or voting debt, or enter into other agreements or commitments of any character obligating Avigen to issue any such securities or rights, other than issuances of Avigen common stock upon the exercise of options, warrants or other rights of Avigen existing on the date of the Merger Agreement in accordance with their present terms;
- cause, permit or propose any amendments to its certificate of incorporation or bylaws;
- acquire or agree to acquire by merging or consolidating with, or by purchasing any equity or voting interest in or a portion of the assets of, or by any other manner, any business or any person or division thereof, or otherwise acquire or agree to acquire any assets;

enter into any binding agreement, agreement in principle, letter of intent, memorandum of understanding or similar agreement with respect to any material joint venture, strategic partnership, collaboration, license or alliance;

sell, lease, license, encumber or otherwise dispose of any properties or assets provided that Avigen may sell, lease, license encumber or otherwise dispose of its rights to the first milestone payment under the Genzyme Agreement provided no liabilities, contingent or otherwise, are or may be incurred by Avigen pursuant to such disposition and Avigen may sell, lease, license, encumber or otherwise dispose of all of its rights under the Genzyme Agreement provided that the consideration received by Avigen is at least $6,200,000 and that no liabilities, contingent or otherwise, are or may be incurred by Avigen pursuant to such disposition;

Table of Contents

make any loans, advances or capital contributions to, or investments in, any other person;

make any material change in its methods or principles of accounting since June 30, 2009;

adopt or change any material tax accounting method, change any tax accounting period, make, change or revoke any material tax election, file any amended tax return, settle or compromise any material tax liability or claims, agree to an extension or waiver of the statute of limitations with respect to the assessment or determination of taxes, enter into any tax indemnity, tax allocation or tax sharing agreement, enter into any private letter ruling, closing agreement, or similar ruling or agreement with respect to any tax or surrender any right to claim a tax refund; provided, however, that if any of the foregoing actions is required by any tax law or other applicable law, Avigen will promptly provide MediciNova with written notification (including by electronic mail) of such action;

amend or modify, or propose to amend or modify, or otherwise take any action under, the Avigen rights agreement except pursuant to modifications required by the Merger Agreement;

revalue any of its assets or make any change in accounting methods, principles or practices, other than as required by generally accepted accounting principles, or GAAP, or a governmental entity;

(1) pay, discharge, settle or satisfy any material claims, liabilities or obligations (absolute, accrued, asserted or unasserted, contingent or otherwise), or litigation (whether or not commenced prior to the date of the Merger Agreement), other than the payment, discharge, settlement, or satisfaction for money, of claims, liabilities, obligations or litigation (x) to the extent subject to reserves on Avigen s financial statements existing as of the date of the Merger Agreement in accordance with GAAP or (y) that are accounts payable incurred in the ordinary course of business for goods and services of claims not in excess of $10,000 individually or $50,000 in the aggregate, or (2) waive the benefits of, agree to modify in any manner materially adverse to Avigen, terminate, release any person from or knowingly fail to enforce any material confidentiality or similar agreement to which Avigen is a party or of which Avigen is a beneficiary;

(1) increase in any manner the amount of compensation or fringe benefits of, pay any bonus or special remuneration (cash, equity or otherwise) to or grant severance or termination pay to any employee, consultant or director of Avigen, (2) make any increase in or commitment to increase the benefits payable under or Avigen s obligations with respect to any Avigen employee plan or employee agreement (including any severance plan), adopt or amend or make any commitment to adopt or amend any Avigen employee plan or employee agreement or make any contribution, other than regularly scheduled contributions or contributions required by the terms of the Avigen employee plan as in effect as of the date of the Merger Agreement, to any Avigen employee plan, (3) waive any stock repurchase rights, accelerate, amend or change the vesting terms or the period of exercisability of Avigen options, or reprice any Avigen options or authorize cash payments in exchange for any Avigen options, (4) enter into any employment, severance, termination or indemnification agreement with any employee or enter into any collective bargaining agreement, (5) make any oral or written commitment with respect to any material aspect of any Avigen employee plan or employee agreement that is not in accordance with the existing written terms and provision of such Avigen employee plan or employee agreement or in accordance with the terms of the Merger Agreement, (6) grant any stock appreciation right, phantom stock award, stock-related award or performance award (whether payable in cash, shares or otherwise) to any person (including any employee), or (7) enter into any agreement with any employee the benefits of which are (in whole or in part) contingent or the terms of which are materially altered upon the occurrence of a transaction involving Avigen of the nature contemplated by the Merger Agreement;

grant or modify any rights with respect to Avigen s intellectual property;

enter into, or renew, any contracts;

105

Table of Contents

enter into any agreement or commitment the effect of which would be to grant to a third party following the Merger any actual or potential right of license to any material intellectual property owned by Avigen;

hire employees;

terminate any employees of Avigen or take actions that are reasonably calculated to cause any employees of Avigen to resign;

make any representations or issue any communications to employees that are inconsistent with the Merger Agreement or the transactions contemplated thereby, including any representations regarding offers of employment or other benefits from MediciNova;

incur any indebtedness for borrowed money or guarantee any such indebtedness of another person, issue or sell any debt securities or options, warrants, calls or other rights to acquire any debt securities of Avigen, guarantee any debt securities of another person, enter into any keep well or other agreement to maintain any financial statement condition of any other person or enter into any arrangement having the economic effect of any of the foregoing;

make any individual payments in excess of $10,000 or series of related payments in the aggregate in excess of $50,000 outside of the ordinary course of business or make or commit to make any capital expenditures in excess of $10,000 individually or $50,000 in the aggregate, except in each case as otherwise required by a pre-existing contractual obligation;

modify or amend in a manner adverse in any material respect to Avigen, or terminate any Avigen scheduled contract currently in effect, or waive, release or assign any material rights or claims thereunder, in each case, in a manner adverse in any material respect to Avigen;

take any action to exempt or make not subject to (1) the provisions of Section 203 of the Delaware General Corporation Law; (2) any other state takeover law or state law that purports to limit or restrict business combinations or the ability to acquire or vote shares or (3) Avigen s rights agreement, any person (other than MediciNova, Absolute Merger and any other subsidiary of MediciNova) or any action taken thereby, which person or action would have otherwise been subject to the restrictive provisions thereof and not exempt therefrom;

enter into any contract requiring Avigen to pay in excess of $10,000 individually or $50,000 in the aggregate if Avigen were to be dissolved or liquidated;

file a certificate of dissolution; or

agree in writing or otherwise to take any of the foregoing actions.

Covenants of Avigen

Under the terms of the Merger Agreement, Avigen has agreed that it will, among other things, and subject to specified exceptions:

effective immediately before the effective time of the Merger, terminate its 401(k) plan (unless MediciNova provides written notice to Avigen at least five business days prior to the closing date that such Avigen employee plan will not be terminated);

not to redeem its preferred stock purchase rights, amend its rights agreement or take any other action that would allow any person other than MediciNova, Absolute Merger or any other subsidiary of MediciNova to acquire beneficial ownership of more than 20 percent of Avigen s outstanding shares without causing a distribution date or a transaction under Avigen s rights agreement;

use commercially reasonable efforts to cause each of its directors to deliver to MediciNova written resignations from such position as director, effective at or before the effective time of the Merger;

Table of Contents

comply with all notice and other obligations under the Worker Readjustment and Retraining Notification Act or similar state or local law in connection with any terminations at or before the effective time of the Merger;

(1) obtain executed release agreements from its directors (other than John K.A. Prendergast), Kenneth Chahine, Priscilla DeVries, Kirk Johnson and Andrew A. Sauter no later than August 24, 2009 and (2) use commercially reasonable efforts to obtain, prior to completion of the Merger, (x) executed release agreements from Avigen s officers as well as participants in its management transition plan, effective July 15, 1998, and (y) executed release agreements dated as of the date of closing from Priscilla DeVries, Kirk Johnson and Andrew A. Sauter; and

amend its management transition plan, effective July 15, 1998.

Covenants of MediciNova

Under the terms of the Merger Agreement, MediciNova has agreed that it will use its commercially reasonable efforts to authorize for listing on Nasdaq, prior to the effective time of the Merger, the shares of MediciNova common stock issuable upon conversion of the Convertible Notes, subject to official notice of issuance.

Covenants of MediciNova and Avigen

Under the terms of the Merger Agreement, MediciNova and Avigen have agreed that, subject to specified exceptions, they will:

as promptly as practicable after the execution of the Merger Agreement prepare and file with the SEC a registration statement in connection with the issuance of the Convertible Notes and shares of MediciNova common stock issuable upon conversion thereof and a proxy statement to solicit adoption of the Merger Agreement by the stockholders of Avigen and to solicit adoption of the Merger Agreement and issuance of the Convertible Notes by the stockholders of MediciNova, and use all commercially reasonable efforts to have the registration statement declared effective under the Securities Act as promptly as practicable after such filing and to keep the registration statement effective as long as necessary to consummate the Merger and the transactions contemplated thereby;

give prompt notice to the other party of any representation or warranty made by it contained in the Merger Agreement becoming untrue or inaccurate, or any failure of it to comply with or satisfy in any material respect any covenant, condition or agreement to be complied with or satisfied by it under the Merger Agreement, in each case, such that the closing conditions regarding such matters would not be satisfied with respect to such party;

permit the other party and the other party s accountants, counsel and other representatives reasonable access, upon reasonable prior notice, during normal business hours to its properties, books, contracts, records and personnel and other documents and data and furnish such other information concerning its business, properties, results of operations and personnel, as MediciNova or Avigen may reasonably request;

consult with each other before issuing, and provide each other the opportunity to review, comment upon and concur with, and use all commercially reasonable efforts to agree on any press release or public statement with respect to the Merger Agreement and the transactions contemplated thereby, including the Merger, and will not issue any such press release or make any such public statement prior to such consultation and (to the extent practicable) agreement, except as may be required by applicable laws, any listing agreement with Nasdaq or in connection with a change of recommendation by Avigen s board of directors permitted by the Merger Agreement; and

cooperate, and cause their respective controlled affiliates to cooperate, in good faith and use their commercially reasonable efforts to undertake any reasonable actions required to lawfully complete the Merger and the transactions contemplated thereby.

107

Table of Contents

Director and Officer Indemnification and Insurance

Subject to applicable Delaware law, from and after the effective time of the Merger, MediciNova has agreed to cause the surviving entity to maintain and honor all indemnification arrangements in place for all past and present directors, officers, employees and agents of Avigen and its subsidiaries as of the date of the Merger Agreement under Avigen s amended and restated certificate of incorporation and amended and restated bylaws and the indemnification agreements disclosed to MediciNova for acts or omissions occurring at or prior to the effective time of the Merger.

Avigen has agreed to purchase, and MediciNova has agreed to cause the surviving entity to maintain, a directors and officers insurance and indemnification policy that will cover those persons who are covered by Avigen s directors and officers insurance and indemnification policy as of the date of the Merger Agreement for events occurring prior to the effective time of the Merger on terms no less favorable than those applicable to the current directors and officers of Avigen for a period of six years, provided, however, that in no event will Avigen expend in excess of an agreed amount to procure insurance coverage without the prior written consent of MediciNova.

Limitation on Avigen s Ability to Consider Other Acquisition Proposals

Avigen has agreed that it and its directors and officers will not, and that it will instruct its employees, agents and representatives not to, directly or indirectly, subject to specified exceptions:

- initiate, solicit or knowingly encourage (including by way of providing information) the making by any third party of any inquiry, proposal or offer that constitutes or that would reasonably be expected to lead to an acquisition proposal from such third party;
- engage in any discussions or negotiations with any third party regarding the making by any third party of any inquiry, proposal or offer that constitutes or that would reasonably be expected to lead to an acquisition proposal from such third party;
- knowingly cooperate with or knowingly assist any third party in connection with the making by any third party of any inquiry, proposal or offer that constitutes or that would reasonably be expected to lead to an acquisition proposal from such third party;
- knowingly facilitate the making by any third party of any inquiry, proposal or offer that constitutes or that would reasonably be expected to lead to an acquisition proposal from such third party; or
- withdraw or modify the recommendation of the Avigen board of directors that Avigen stockholders vote to adopt the Merger Agreement in a manner adverse to MediciNova.

Under the terms of the Merger Agreement, Avigen agreed to immediately cease any existing activities conducted prior to the date of the Merger Agreement with respect to any acquisition proposal to the extent such activities are not permitted under the Merger Agreement. Avigen also agreed to promptly request that each person with which it has entered into a confidentiality agreement in connection with the consideration of an acquisition proposal to return or destroy all confidential information previously furnished to such person.

Avigen has agreed to notify MediciNova promptly after it receives knowledge of its receipt, or that of its representatives, any acquisition proposal, any inquiry, offer or proposal that Avigen determined in good faith would reasonably be expected to lead to an acquisition proposal or any request for non-public information relating to Avigen or for access to the business, properties, assets, books or records of Avigen by any person that relates to an acquisition proposal or that Avigen determines in good faith would reasonably be expected to lead to an acquisition proposal.

Notwithstanding the foregoing, in the event Avigen receives a bona fide unsolicited acquisition proposal that its board of directors determines in good faith (after consultation with its outside legal counsel and its financial advisor) is, or reasonably could be expected to lead to, a superior offer, Avigen may then enter into a confidentiality agreement or discussions or negotiations with, any person or group in response to such acquisition

108

Table of Contents

proposal and, subject to compliance with the Merger Agreement, enter into a binding written agreement concerning a transaction that constitutes a superior offer.

For purposes of the Merger Agreement, the term acquisition proposal means a merger, joint venture, partnership, consolidation, tender offer, recapitalization, reorganization, share exchange, business combination or similar transaction involving Avigen or any other direct or indirect acquisition involving 50 percent or more of the total voting power of Avigen, or all or substantially all of the total assets of Avigen. For purposes of the Merger Agreement, the term superior offer means a bona fide written acquisition proposal pursuant to which a third party would own, if consummated, at least 50 percent of Avigen s outstanding capital stock (or of the surviving entity in a merger or the direct or indirect parent of the surviving entity in a merger) or at least 50 percent of Avigen s assets, on terms that Avigen s board of directors in good faith concludes (after consultation with its outside legal counsel and its financial adviser), taking into account all aspects of such acquisition proposal, including all legal, financial, regulatory and other aspects of the offer and the person making the offer, would if consummated result in a transaction that is more favorable from a financial point of view to Avigen stockholders (in their capacities as stockholders) than the Merger and is reasonably capable of being consummated on the terms proposed.

Obligations of the Avigen Board of Directors with Respect to its Recommendation and Holding a Meeting of Stockholders

After the registration statement of which this joint proxy statement/prospectus forms a part is declared effective by the SEC, Avigen has agreed to take all action necessary in accordance with Delaware law and its amended and restated certificate of incorporation and amended and restated bylaws to cause this joint proxy statement/prospectus to be mailed to its stockholders and to call, hold and convene a special meeting of its stockholders to consider the adoption of the Merger Agreement to be held as promptly as practicable. Avigen may adjourn or postpone the stockholders meeting to the extent necessary to ensure that any necessary supplement or amendment to this joint proxy statement/prospectus is provided to its stockholders in advance of the vote to be taken at such meeting or, if there are insufficient shares of Avigen common stock represented to constitute a quorum necessary to conduct the business of such stockholders meeting at the time the meeting is originally scheduled.

Under the terms of the Merger Agreement and except as set forth in the following sentence, Avigen has agreed that its board of directors will recommend that its stockholders vote to adopt the Merger Agreement. However, at any time before the special meeting is conducted, Avigen s board of directors is entitled to withdraw or modify its recommendation that its stockholders vote to adopt the Merger Agreement if the following requirements are satisfied:

- a superior offer has been made and has not been withdrawn;
- the Merger Agreement has not been adopted by Avigen stockholders;
- Avigen has given MediciNova at least three days prior written notice advising MediciNova that its board of directors has received a superior offer, specifying the material terms and conditions of such superior offer, identifying the person making such superior offer and stating that it intends to modify or withdraw its recommendation that Avigen stockholders adopt the Merger Agreement and the manner in which it intends to do so;
- Avigen s board of directors has determined in good faith, after it has received a superior offer and after consultation with outside counsel, that the failure to withdraw or modify its recommendation would reasonably be expected to result in a breach of its fiduciary duties to Avigen stockholders under applicable law; and
- Avigen has not materially breached any of the covenants and agreements regarding solicitation of acquisition proposals in the Merger Agreement with respect to obtaining the superior offer.

Table of Contents

Unless the Merger Agreement has been terminated by Avigen in accordance with the terms of the Merger Agreement, Avigen s obligation to call, give notice of and hold its special meeting will not be affected by the commencement, disclosure, announcement or submission to Avigen of an acquisition proposal or by any withdrawal or modification of the recommendation by its board of directors that its stockholders vote to adopt the Merger Agreement. Avigen is also not permitted to submit to the vote of its stockholders any acquisition proposal. See Termination of the Merger Agreement.

Obligations of the MediciNova Board of Directors with Respect to its Recommendation and Holding a Meeting of Stockholders

After the registration statement of which this joint proxy statement/prospectus forms a part is declared effective by the SEC, MediciNova has agreed to take all action necessary in accordance with Delaware law and its restated certificate of incorporation and amended and restated bylaws to cause this joint proxy statement/prospectus to be mailed to its stockholders and to call, hold and convene a special meeting of its stockholders to consider the adoption of the Merger Agreement and the issuance of the Convertible Notes to be held as promptly as practicable. MediciNova may adjourn or postpone the stockholders meeting to the extent necessary to ensure that any necessary supplement or amendment to this joint proxy statement/prospectus is provided to its stockholders in advance of the vote to be taken at such meeting or, if there are insufficient shares of MediciNova common stock represented to constitute a quorum necessary to conduct the business of such stockholders meeting at the time the meeting is originally scheduled.

Conditions to the Obligations of Each Party

The Merger Agreement provides that the obligations of MediciNova, Absolute Merger and Avigen to consummate and effect the Merger are subject to the satisfaction, at or prior to the effective time of the Merger, of the following conditions, as well as to the additional conditions applicable to each of the parties as set forth below:

- the Merger Agreement shall have been adopted by the Avigen stockholders and the Merger Agreement shall have been adopted and the issuance of the Convertible Notes approved by the MediciNova stockholders;

- no governmental entity of competent jurisdiction shall have issued an order, decree, injunction or other order or ruling (whether temporary, preliminary or permanent) which is in effect and has the effect of making the Merger illegal or otherwise prohibiting consummation of the Merger, where the violation of such order, decree or ruling that would occur if the Merger were consummated would have a material adverse effect on MediciNova or Avigen;

- the registration statement on Form S-4 (of which this joint proxy statement/prospectus forms a part) shall have been declared effective by the SEC and shall not be subject to a stop order or any proceeding initiated by the SEC for that purpose.

Additional Conditions to the Obligations of Avigen

The Merger Agreement provides that the obligation of Avigen to consummate and effect the Merger is subject to the satisfaction, at or prior to the effective time of the Merger, of the following conditions:

- all representations and warranties of MediciNova and Absolute Merger shall have been true and correct as of the date of the Merger Agreement and true and correct as of the closing as if made as of the closing (except to the extent that any such representation and warrant by its terms speaks only as of the date of the Merger Agreement or another specified date, in which case such representation and warranty shall have been true and correct as of such date), provided that in determining the accuracy of such representations and warranties all materiality qualifications that limit the scope of such representations and warranties will be disregarded and any inaccuracies in such representations and warranties will be disregarded unless all such inaccuracies, considered collectively, have had and continue to have a material adverse effect on MediciNova;

Table of Contents

MediciNova and Absolute Merger shall have performed or complied in all material respects with all agreements and covenants required to be performed by MediciNova or Absolute Merger by the Merger Agreement prior to the effective time of the Merger;

there shall not have occurred any change, circumstance, event, effect or occurrence that has or is reasonably likely to have a material adverse effect on MediciNova since the date of the Merger Agreement and that is continuing;

there shall not be any suit, action or proceeding asserted by any governmental entity challenging or seeking to restrain or prohibit the consummation of the Merger or transactions contemplated thereby, the effect of which would cause a violation of legal requirements or seeking to require the parties to effect or agree to certain burdensome conditions;

MediciNova shall have entered into the trust agreement, Indenture, CPR Agreement and escrow agreement; and

the shares of MediciNova common stock required to be reserved for issuance in connection with the issuance of the Convertible Notes shall have been duly authorized for listing on Nasdaq, subject to official notice of issuance.

Additional Conditions to the Obligations of MediciNova and Absolute Merger

The Merger Agreement provides that the obligations of MediciNova and Absolute Merger to consummate and effect the Merger are subject to the satisfaction, at or prior to the effective time of the Merger, of the following additional conditions:

all representations and warranties of Avigen (other than with respect to its capitalization) shall have been true and correct as of the date of the Merger Agreement and true and correct as of the closing as if made as of the closing (except to the extent that any such representation and warrant by its terms speaks only as of the date of the Merger Agreement or another specified date, in which case such representation and warranty shall have been true and correct as of such date), provided that in determining the accuracy of such representations and warranties all materiality qualifications that limit the scope of such representations and warranties will be disregarded and any inaccuracies in such representations and warranties will be disregarded unless all such inaccuracies, considered collectively, have had and continue to have a material adverse effect on Avigen;

the representations and warranties of Avigen with respect to its capitalization shall be true and correct subject to a de minimis deviation of up to 15,000 shares of Avigen common stock as if made as of the closing;

Avigen shall have performed or complied in all material respects with all agreements and covenants required to be performed by it prior to the effective time of the Merger;

there shall not have occurred any change, circumstance, event, effect or occurrence that has or is reasonably likely to have a material adverse effect on Avigen since the date of the Merger Agreement and that is continuing;

there shall not be any suit, action or proceeding asserted by any governmental entity challenging or seeking to restrain or prohibit the consummation of the Merger or transactions contemplated thereby, the effect of which would cause a violation of legal requirements or seeking to require the parties to effect or agree to certain burdensome conditions;

MediciNova shall have received from Avigen (1) a certification dated as of the closing date and signed by a corporate officer of Avigen, that Avigen is not, and has not been at any time during the applicable period, a United States real property holding corporation, as defined in Section 897(c)(2) of the Internal Revenue Code of 1986, or the Code, and (2) proof reasonably satisfactory

to MediciNova that Avigen has provided notice of such certification to the Internal Revenue Service; and

the releases of Avigen s directors (other than John K.A. Prendergast), Kenneth Chahine, Priscilla DeVries, Kirk Johnson and Andrew A. Sauter shall have become effective and not been revoked.

Table of Contents

Material Adverse Effect

As used with respect to Avigen in the Merger Agreement, material adverse effect means any fact, circumstance, event, change, effect or occurrence that (1) has or would be reasonably likely to have a material adverse effect on the business or financial condition of Avigen taken as a whole (taking into account that Avigen has effectively ceased business operations and is preparing to liquidate in the event the Merger is not consummated) or (2) would prevent Avigen from consummating the Merger or the other transactions contemplated hereby, but, in the case of the foregoing clause (1), none of the following will be deemed in and of themselves, either alone or in combination, to constitute, and none of the following will be taken into account in determining whether there has been or will be, a material adverse effect on Avigen:

- any adverse fact, circumstance, event, change, effect or occurrence generally affecting the industry in which Avigen operates or conducts its business or the economy or the financial or securities markets in the United States or elsewhere in the world, including effects on such industries, economy or markets resulting from any regulatory and political conditions or developments or any natural disaster of any acts of terrorism, sabotage, military action or war (whether or not declared) or any escalation or worsening thereof (except in each case to the extent such changes disproportionately affect Avigen);

- any fact, circumstance, event, change, effect or occurrence reflecting or resulting from changes in legal requirements or GAAP or the interpretations thereof;

- any adverse fact, circumstance, event, change, effect or occurrence resulting from actions or omissions of Avigen which MediciNova has requested, to which MediciNova has consented or that are in compliance with the terms of the Merger Agreement;

- any adverse fact, circumstance, event, change, effect or occurrence resulting from any legal proceedings arising from allegations of breach of fiduciary duty relating to the Merger Agreement or false or misleading public disclosure (or omission) in connection with the Merger Agreement made or brought by any of the current or former stockholders of Avigen (on their own behalf or on behalf of Avigen);

- any change in the market price or trading volume of Avigen s outstanding securities;

- any failure by Avigen to meet internal projections or forecasts or published revenue or earnings predictions for any period;

- any adverse fact, circumstance, event, change, effect or occurrence arising directly or indirectly from or otherwise relating to any act of God, any act of terrorism, war or other armed hostilities, any regional, national or international calamity or any other similar event; or

- any adverse fact, circumstance, event, change, effect or occurrence resulting from the announcement or pendency of (1) the Merger or the proposal thereof (including the loss or departure of employees or adverse developments in relationships with customers, suppliers, distributors or other business partners) or (2) the Merger Agreement and the transactions contemplated thereby.

As used with respect to MediciNova in the Merger Agreement, material adverse effect means any fact, circumstance, event, change, effect or occurrence that (1) has or would be reasonably likely to have a material adverse effect on the business, results of operations or financial condition of MediciNova and its subsidiaries, taken as a whole or (2) would prevent MediciNova or Absolute Merger from consummating the Merger or other transactions contemplated thereby; provided, however, that in the case of clause (1) none of the following will be deemed in and of themselves, either alone or in combination, to constitute, and none of the following will be taken into account in determining whether there has been or will be, a material adverse effect with respect to MediciNova:

any adverse fact, circumstance, event, change, effect or occurrence generally affecting the industry in which MediciNova operates or conducts its business or the economy or the financial or securities markets in the United States or elsewhere in the world, including effects on such industries, economy

Table of Contents

or markets resulting from any regulatory and political conditions or developments or any natural disaster or any acts of terrorism, sabotage, military action or war (whether or not declared) or any escalation or worsening thereof (except in each case to the extent such changes disproportionately affect MediciNova or its subsidiaries);

any fact, circumstance, event, change, effect or occurrence reflecting or resulting from changes in legal requirements or GAAP or interpretations thereof;

any adverse fact, circumstance, event, change, effect or occurrence resulting from any legal proceedings arising from allegations of breach of fiduciary duty relating to the Merger Agreement or false or misleading public disclosure (or omission) in connection with the Merger Agreement made or brought by any of the current or former stockholders of MediciNova (on their own behalf or on behalf of MediciNova);

any change in the market price or trading volume of MediciNova s outstanding securities;

any failure by MediciNova to meet internal projections or forecasts or published revenue or earnings predictions for any period;

any adverse fact, circumstance, event, change, effect or occurrence arising directly or indirectly from or otherwise relating to any act of God, any act of terrorism, war or other armed hostilities, any regional, national or international calamity or any other similar event; or

any adverse fact, circumstance, event, change, effect or occurrence resulting from the announcement or pendency of (1) the Merger or the proposal thereof (including the loss or departure of employees or adverse developments in relationships with customers, suppliers, distributors or other business partners) or (2) the Merger Agreement and the transactions contemplated thereby.

Termination of the Merger Agreement

The Merger Agreement provides that the boards of directors of MediciNova and Avigen can agree by mutual written consent to terminate the Merger Agreement at any time prior to the effective time of the Merger. In addition, either MediciNova or Avigen may terminate the Merger Agreement:

if the Merger has not been consummated by April 20, 2010 (the end date), except that such right to terminate will not be available to a party (x) whose (or whose affiliate s) action or failure to act has been a principal cause of or primarily resulted in the failure of the Merger to occur and such action or failure to act constitutes a breach of the Merger Agreement or (y) that (or whose affiliate) is in material breach of the Merger Agreement;

if a court or governmental or regulatory authority of competent jurisdiction shall have issued any order, decree or ruling or taken any other action (including the failure to have taken an action), in any case having the effect of permanently restraining, enjoining or otherwise prohibiting the Merger, which order, decree, ruling or other action is final and nonappealable;

if the approval of a majority of the stockholders of Avigen to adopt the Merger Agreement is not obtained at its special meeting; or

if the approval of a majority of the stockholders of MediciNova to adopt the Merger Agreement and approve the issuance of the Convertible Notes is not obtained at its special meeting.

The Merger Agreement provides that MediciNova may terminate the Merger Agreement, at any time prior to the effective time of the Merger, if any of the following events occurs:

(1) any representation or warranty of Avigen set forth in the Merger Agreement shall have been breached or become untrue or Avigen shall have breached any covenant or agreement of Avigen set forth in the Merger Agreement, (2) such breach or untruth is not cured within 30 days after receipt by

Table of Contents

Avigen of written notice from MediciNova (provided, however, that such 30-day period will not apply if such breach or misrepresentation is not curable) and (3) such breach or misrepresentation would cause certain closing conditions incapable of being satisfied by the end date; provided that MediciNova is not then in breach of its respective warranties, covenants or agreements set forth in the Merger Agreement such that the closing conditions relating to accuracy of its representations and warranties or compliance with covenants and agreements would not be satisfied by the end date; or

Avigen shall have entered into a definitive agreement to effect a superior offer.

The Merger Agreement provides that Avigen may terminate the Merger Agreement, at any time prior to the effective time of the Merger, if any of the following events occurs:

(1) any representation or warranty of MediciNova or Absolute Merger set forth in the Merger Agreement shall have been breached or become untrue or MediciNova or Absolute Merger shall have breached any covenant or agreement of MediciNova or Absolute Merger set forth in the Merger Agreement, (2) such breach or misrepresentation is not cured within 30 days after receipt by MediciNova of written notice from Avigen (provided, however, that such 30-day period will not apply if such breach or misrepresentation is not curable), and (3) such breach or misrepresentation would cause certain closing conditions incapable of being satisfied by the end date; provided that Avigen is not then in breach of its respective warranties, covenants or agreements set forth in the Merger Agreement such that the closing conditions relating to accuracy of its representations and warranties or compliance with covenants and agreements would not be satisfied by the end date; or

Avigen shall have entered into a definitive agreement to effect a superior offer in compliance with the terms of the Merger Agreement.

Upon termination, the Merger Agreement will be of no further effect, and there will be no liability or obligation on the part of MediciNova or Avigen or their respective subsidiaries, officers or directors, except (1) certain confidentiality obligations, (2) any liabilities relating to reimbursement of expenses and (3) liabilities or damages incurred or suffered by a party as a result of the willful and material breach by the other party of any of its representations, warranties, covenants or other agreements set forth in the Merger Agreement.

Fees and Expenses

In the event that Avigen s board of directors changes its recommendation regarding the Merger following receipt of a superior offer, and the Merger is not consummated, Avigen is required to reimburse MediciNova for 50 percent of its reasonable and documented out-of-pocket expenses up to a maximum $500,000. Each party otherwise will pay its own costs and expenses incurred in connection with the Merger Agreement and the transactions contemplated thereby.

Termination Fee

Except for the limited circumstances in which Avigen may be required to reimburse MediciNova for certain out-of-pocket expenses as described above, no termination fees are payable in connection with a termination of the Merger Agreement.

Regulatory Approvals

No federal or state regulatory approvals are required in connection with the Merger and the issuance of the Convertible Notes, and neither Avigen nor MediciNova is subject to compliance with any federal or state regulatory requirements in connection with the Merger or issuance of the Convertible Notes.

Table of Contents

Contingent Payment Rights

CPR Agreement

Immediately prior to the completion of the Merger, MediciNova, Avigen and American Stock Transfer & Trust Company, LLC, as rights agent, will enter into the CPR Agreement. Although the definitive version of the CPR Agreement negotiated and entered into with American Stock Transfer & Trust Company, LLC is not expected to differ from the form of CPR Agreement included as Annex B to this joint proxy statement/prospectus in any respect that would be material to holders of CPRs, there can be no assurance that any changes will not, in fact, be material to holders.

Issuance of CPRs

MediciNova will issue Avigen stockholders one CPR for each share of Avigen common stock held immediately prior to the effective time of the Merger. In addition, the holder of Avigen s unexercised and outstanding warrant to subscribe for 15,000 shares of Avigen common stock exercises such warrant, such holder will receive the number of CPRs to which it would have been entitled if such warrant had been exercised prior to the completion of the Merger, subject to the terms and conditions of the CPR Agreement and following the receipt by MediciNova of the applicable exercise price thereof.

CPR Payments

The CPR Agreement provides for the payment of the following amounts, each a CPR payment event, on a pro rata basis:

- if the first milestone payment under the Genzyme Agreement is received within 20 months of effective time of the Merger, $6,000,000 or such lesser cash amount paid by Genzyme less certain costs and expenses;
- if the first milestone payment has not occurred and the Parkinson s Product, as defined in the Genzyme Agreement, is sold or otherwise disposed of by MediciNova within 20 months of the effective time of the Merger, 50 percent of the difference between the net proceeds of such sale or disposition received within such 20-month period and certain costs and expenses; and
- if the trust established pursuant to Avigen s management transition plan is terminated, the amount remaining in such trust upon termination (less any payments required to be made under Avigen s management transition plan trust agreement), such amount currently estimated at $550,000.

All payments will be made on a pro rata basis. In each case, the payments will be net of any related taxes and out-of-pocket costs, damages, fines, penalties and expenses incurred by MediciNova. For a description of the events that trigger Genzyme s election to either pay the milestone or revert the rights to the Parkinson s disease product candidate, see the section below entitled Genzyme Agreement.

CPRs Non-Transferable

The CPRs may not be sold, assigned, transferred, pledged, encumbered or in any other manner transferred or disposed of, in whole or in part, other than through a permitted transfer completed in accordance with the provisions of the CPR Agreement and in compliance with applicable U.S. federal and state securities laws. For purposes of the CPR Agreement, a permitted transfer means:

- the transfer of any or all of the CPRs on death by will or intestacy;
- transfer by instrument to an inter vivos or testamentary trust in which the CPRs are to be passed to beneficiaries upon the death of the trustee;

transfers made pursuant to a court order of a court of competent jurisdiction (such as in connection with divorce, bankruptcy or liquidation); or

Table of Contents

a transfer made by operation of law (such as a merger or consolidation), or in connection with the dissolution, liquidation or termination of any corporation, limited liability company, partnership or other entity.

Rights of CPR Holder

The rights of a CPR holder are limited to those expressed in the CPR Agreement. The CPRs will not entitle the holders thereof, by virtue of their ownership of CPRs, to any of the rights of a MediciNova stockholder.

Payment Procedures; Disputes

Upon any CPR payment event or receipt of any CPR payment amount, MediciNova will deliver to the rights agent written notice specifying the date of the CPR payment receipt, the aggregate amount of the CPR payment amount and the per-CPR amount to be paid to CPR holders. If, prior to the termination date described below, both the first milestone event and Parkinson s Product sale have not occurred and no amounts were payable under the plan trust, MediciNova also will deliver to the rights agent written notice certifying that the applicable CPR payment events have not occurred and that the CPRs have expired.

Upon receipt of a payment notice or termination certificate, the rights agent will send each holder of a CPR (and the holder of the continuing warrant) a copy of such notice together with a brief statement describing the information and objection rights. A specified holder representative, as designated under the CPR Agreement, or the holders of at least five percent of the outstanding CPRs may request information and documentation from MediciNova in connection with the enforcement of their rights under the CPR Agreement, the determination of whether a CPR payment event has occurred and the termination of the CPR payment amount. The holder representative or holders of at least 25 percent of the outstanding CPRs may object to any determination by MediciNova that the first milestone event, the Parkinson s Product sale or the determination of the plan trust has not occurred or the aggregate portion of the applicable CPR payment amount payable to holders. If MediciNova does not agree with any or all of such objections, an independent, reputable accounting firm selected by MediciNova and approved by the holder representative or objecting holders will perform the determinations or calculations necessary to resolve the dispute. The independent accounting firm s determination will be binding and following receipt of such determination MediciNova, the objecting holders and the holder representative will instruct the rights agent of the resolution of the dispute. The cost of the accounting firm will be paid by the objecting holders.

If MediciNova delivers to the rights agent a payment notice or if all or a portion of the applicable CPR payment amount is determined to be payable pursuant to the dispute resolution procedures set forth in the CPR Agreement, MediciNova will establish a CPR payment date that is within 15 calendar days of the date of the payment notice or date of final determination by the independent accounting firm. Following delivery of the CPR payment amount by MediciNova, the rights agent will in turn, on such CPR payment date, distribute the CPR payment amount on a pro rata basis to the CPR holders, subject to certain deductions as may be required to be withheld under the Code or any state, local or foreign tax law.

Ability to Make Prompt Payment

Under the CPR Agreement, MediciNova and Avigen have agreed not to enter into any agreement that (1) would prohibit or restrict MediciNova s or the rights agent s ability to pay the CPR payment amount or (2) in the case of Avigen, restrict Avigen from distributing any CPR payment amount.

Negative Pledges and Affirmative Covenants

Under the CPR Agreement, MediciNova and Avigen have agreed not to (1) transfer, assign, pledge, encumber or otherwise dispose of any rights to receive the first milestone payment, (2) take any action that

Table of Contents

would permit Genzyme to terminate, or that would otherwise excuse, delay, reduce or otherwise impair Genzyme s obligation to make the first milestone payment and (3) terminate, amend, supplement or otherwise modify the Genzyme Agreement in a manner that would excuse, delay, reduce or otherwise impair the rights of Avigen to receive the first milestone payment upon a CPR payment event. MediciNova and Avigen also have agreed to use commercially reasonable efforts to enforce the rights and remedies under the Genzyme Agreement as such rights and remedies relate to the first milestone payment.

Amendment of CPR Agreement

Without the consent of the CPR holders or the rights agent, MediciNova, at any time and from time to time, may enter into one or more amendments to the CPR Agreement, for any of the following purposes:

- to evidence the succession of another person to MediciNova and the assumption by any successor of the covenants of MediciNova in the CPR Agreement; or
- to evidence the termination of the CPR registrar and the succession of another person as a successor CPR registrar and the assumption by any successor of the obligations of the CPR registrar.

Without the consent of the holders or holder representative, MediciNova and the rights agent, at any time and from time to time, may enter into one or more amendments to the CPR Agreement, for any of the following purposes:

- to evidence the succession of another person as a successor rights agent and the assumption by any successor of the covenants and obligations of the rights agent;
- to add to the covenants of MediciNova any further covenants, restrictions, conditions or provisions as MediciNova and the rights agent consider to be for the protection of CPR holders; provided that in each case, the provisions do not adversely affect the rights of CPR holders;
- to cure any ambiguity, to correct or supplement any provision in the CPR Agreement that may be defective or inconsistent with any other provision, or to make any other provisions with respect to matters or questions arising under the CPR Agreement; provided that in each case, the provisions do not adversely affect the rights of CPR holders;
- as may be necessary or appropriate to ensure that the CPRs are not subject to registration under the Securities Act or Exchange Act; or
- to add, eliminate or change any provision in the CPR Agreement unless such addition, elimination or change is adverse to the rights of CPR holders.

With the written consent of holders of at least a majority of the CPRs then outstanding, when authorized by the rights agent, MediciNova may enter into one or more amendments to the CPR Agreement for the purpose of adding, eliminating or changing any provision of the CPR Agreement, even if the addition, elimination or change is adverse to the rights of CPR holders.

Consolidation, Merger, Sale or Conveyance of MediciNova

Under the terms of the CPR Agreement, MediciNova may not consolidate with or merge into any other person or convey, transfer or lease its properties and assets substantially as an entirety to any person, unless (1) such person expressly assumes payment of amounts on all the CPRs and the performance of every duty and covenant of the CPR Agreement on the part of MediciNova to be performed or observed and (2) MediciNova has delivered to the rights agent a certificate of one of its officers, stating that such consolidation, merger, conveyance, transfer

or lease complies with the CPR Agreement and that all conditions provided for relating to such transaction have been complied with.

Table of Contents

Termination of CPR Agreement

The CPR Agreement will terminate upon the earlier to occur of:

in the event of the occurrence of the termination of the plan trust and payment of the amounts remaining thereunder and either of the first milestone event or the Parkinson s Product sale, payment of all CPR payment amounts regarding the CPR payment events that have occurred, subject to any CPR payment deductions; and

in the event that a termination certificate has been delivered,

if a notice of objection is not delivered within the objection period, the expiration of the objection period; and

if a notice of objection has been delivered within the objection period, either the final determination that a CPR payment event has not been achieved or the fulfillment of any payment or other obligation in respect of such CPR payment event.

Genzyme Agreement

Under the terms of the Genzyme Agreement, Genzyme is currently developing the Parkinson s disease product candidate for which Avigen had commenced a Phase I clinical trial prior to the transfer of Avigen s rights under the gene therapy-related technology to Genzyme. At the time of the transfer of Avigen s rights to Genzyme, Genzyme agreed to conduct the Phase I trial to completion in accordance with the original protocol provided by Avigen (subject to any changes that may be required by the FDA or the institutional review board of any of the clinical sites or that Genzyme determines are necessary or advisable using its prudent scientific or business judgment). The agreement also requires Genzyme to obtain the following regulatory approvals with the FDA and, at Genzyme s election, the Recombinant DNA Advisory Committee, or RAC: (a) within 18 months after the last patient is treated in the Phase I clinical trial, FDA review at a Type C or similar meeting of a protocol for a subsequent clinical trial for the Parkinson s disease product candidate, and (b) within 30 days following such FDA review, if elected by Genzyme, review by the RAC of the protocol for a subsequent clinical trial for the Parkinson s disease product candidate within six months following submission to the RAC or the earliest possible date after six months following submission to the RAC if the RAC notifies Genzyme that it is unable or unwilling to meet with Genzyme during the six-month period.

Under the terms of the Genzyme Agreement, Genzyme must elect to either pay a milestone payment in the amount of $6,000,000 to Avigen or revert the rights to the Parkinson s disease product candidate to Avigen upon the occurrence of any of the following events:

1. If Genzyme does not elect to pursue the review of its protocol for a subsequent clinical trial with the RAC, within 60 days of the FDA Type C or similar meeting;

2. If Genzyme elects to pursue review of its protocol for a subsequent clinical trial by RAC, within 60 days of notice from the RAC that it does not wish to review the protocol; or

3. If Genzyme elects to pursue review of its protocol for a subsequent clinical trial by the RAC and the RAC schedules a meeting with Genzyme to review the protocol, within 60 days of the meeting with the RAC.

If Genzyme elects to conduct a subsequent clinical trial of the Parkinson s disease product candidate prior to meeting with the FDA, then Genzyme will not have the right to elect to revert the rights to the Parkinson s disease product to Avigen and the milestone payment will become due and payable.

If the FDA or RAC, as applicable, delays providing formal feedback to Genzyme on the protocol submitted for a subsequent clinical trial, then Genzyme s right to elect to pay the milestone payment or revert the rights in the Parkinson s disease product candidate will arise within 60 days

following the subsequent meeting with the

Table of Contents

FDA or RAC, as applicable, that is scheduled as soon as possible following the delay imposed by the FDA or RAC, as applicable. If, however, the FDA or RAC, as applicable, determine that a subsequent meeting to review the protocol following the delay is not required, then Genzyme s right to elect to pay the milestone payment or revert the rights in the Parkinson s disease product candidate will arise within 60 days following notice from the FDA or RAC, as applicable, that no subsequent meeting will be held.

If the FDA or RAC, as applicable, refuses to approve the protocol for a subsequent clinical trial on the basis of safety of the Parkinson s disease product candidate, then Genzyme may elect to revert its rights to the Parkinson s disease product candidate to Avigen, in which case, no milestone payment will be due. However, if Genzyme decides to pursue further development of the Parkinson s disease product candidate to address the safety issues raised by the FDA or RAC, as applicable, then Genzyme s right to elect to pay the milestone payment or revert the rights in the Parkinson s disease product candidate will arise within 60 days after the date of a subsequent Type C or similar meeting with the FDA or meeting with the RAC, as applicable.

In all cases, the protocol submitted by Genzyme must be for a clinical trial that is later-stage than Phase I.

Avigen and Genzyme currently disagree as to whether Genzyme is obligated to schedule an FDA review of a protocol for a subsequent clinical trial for the Parkinson s disease product candidate by March 2010, and therefore whether Genzyme s obligation to elect to make the milestone payment or revert the product to Avigen would be triggered on or about 60 days after that time (or any subsequent meeting with the RAC), as described above. Avigen believes that Genzyme is so obligated because Genzyme has previously reported that the last patient, which was in the mid-dose cohort, was treated in the Phase I clinical trial in September 2008. Genzyme has recently notified Avigen that it believes that it is not yet obligated to seek FDA review based on its position that it was not able to treat the high dose cohort called for in the original protocol with the product received from Avigen and the need for certain changes to overcome technical problems with the manufacturing process that it believes are required before it would be possible to satisfy an FDA review of a subsequent protocol. Avigen and Genzyme are currently in discussions regarding the resolution of this disagreement.

Table of Contents

MEDICINOVA S BUSINESS

Overview

MediciNova is a biopharmaceutical company focused on acquiring and developing novel, small molecule therapeutics for the treatment of diseases with unmet medical need with a specific focus on the U.S. market. Through strategic alliances, primarily with Japanese pharmaceutical companies, MediciNova holds rights to a diversified portfolio of clinical and preclinical product candidates, each of which MediciNova believes has a well-characterized and differentiated therapeutic profile, attractive commercial potential and patent assets having claims of commercially adequate scope. MediciNova was incorporated under the laws of the State of Delaware in September 2000.

MediciNova believes that its ability to gain access to and acquire potentially high-value product candidates from Japanese and European pharmaceutical companies is largely attributable to the established relationships and broad industry experience of its management team. In particular, MediciNova believes its relationships with Japanese pharmaceutical companies and their executives provide it with a competitive advantage in opportunistically sourcing product candidates from Japanese pharmaceutical companies at attractive terms. Since MediciNova s inception, MediciNova has established relationships with a number of pharmaceutical companies, including Kissei Pharmaceutical, Kyorin Pharmaceutical Co. Ltd., or Kyorin Pharmaceutical, Mitsubishi Tanabe Pharma Corporation and Meiji Seika Kaisha, Ltd., or Meiji Seika Kaisha, in Japan and Angiogene Pharmaceuticals, Ltd., or Angiogene Pharmaceuticals, in the United Kingdom, pursuant to which MediciNova has obtained rights to develop and commercialize its current product candidates.

Since MediciNova s inception, MediciNova has acquired licenses to eight compounds for the development of ten product candidates in what it believes are large and underserved markets. MediciNova s development pipeline consists of eight product development programs which have been in clinical development for the treatment of asthma, acute exacerbations of asthma, MS, interstitial cystitis, or IC, solid tumor cancers, Generalized Anxiety Disorder/insomnia, preterm labor and urinary incontinence. MediciNova s two earlier stage product development programs have been in preclinical development for the treatment of thrombotic disorders. In addition, MediciNova has expanded the development program for one of its prioritized product candidates, MN-221, to evaluate MN-221 for the treatment of COPD exacerbations.

MediciNova s current strategy is to focus its resources on two prioritized product development programs:

Product Candidate	Disease/Indication	Phase of Development	Licensor	Licensed Territory
MN-221	Acute exacerbations of asthma and COPD exacerbations	Phase II clinical trial in emergency rooms to evaluate MN-221 at planned escalating doses in patients with severe, acute exacerbations of asthma completed in Q2, 2009	Kissei Pharmaceutical	Worldwide, except Japan
		Phase II clinical trial in emergency rooms to evaluate safety and efficacy in patients with severe, acute exacerbations of asthma initiated in Q1, 2009		
		Phase Ib clinical trial to evaluate the safety and efficacy of MN-221 in patients with stable, moderate to severe COPD initiated in Q4, 2009.		
MN-166	Multiple sclerosis	Phase II clinical trial completed in Q2, 2008	Kyorin Pharmaceutical	Worldwide, except Japan, China, Taiwan and South Korea

Prototype once-per-day oral formulation developed for future clinical trials	

Table of Contents

Upon completion of proof-of-concept Phase II clinical trials, MediciNova will either continue to pursue clinical development independently in the United States, as it presently intends with MN-221, or establish a strategic collaboration to support further clinical development, as it presently intends with MN-166. Following the completion of the Phase II clinical trial for MN-166 in the second quarter of 2008, MediciNova is not planning to pursue any further significant clinical development of MN-166 until it secures a strategic collaboration to advance the clinical development of such product candidate.

MediciNova intends to limit development activities for the balance of its product candidates. For each of these remaining product candidates, MediciNova plans to conduct development activities only to the extent deemed necessary to maintain its license rights or maximize its value while pursuing a variety of initiatives to monetize such product candidate on appropriate terms.

These eight non-prioritized product development programs consist of:

Product Candidate	Disease/Indication	Phase of Development	Licensor	Licensed Territory
MN-001	Bronchial asthma	Phase III clinical trial initiated in Q4, 2006 and terminated in Q2, 2007; once-per-day oral dosing formulation prototypes developed	Kyorin Pharmaceutical	Worldwide, except Japan, China, Taiwan and South Korea
MN-001	Interstitial cystitis	Phase II/III clinical trial completed in Q1, 2007	Kyorin Pharmaceutical	Worldwide, except Japan, China, Taiwan and South Korea
MN-029	Solid tumors	Phase I clinical trial completed in Q2, 2006; second Phase I clinical trial completed in Q4, 2007	Angiogene Pharmaceuticals	Worldwide
MN-305	Generalized Anxiety Disorder/ Insomnia	Phase II/III clinical trial completed in Generalized Anxiety Disorder in Q2, 2006 Phase II clinical trial in insomnia completed in Q4, 2007	Mitsubishi ;Tanabe Pharma Corporation	Worldwide, except Japan and certain countries in Asia
MN-221	Preterm labor	Phase I clinical trial completed in Q2, 2007	Kissei Pharmaceutical	Worldwide, except Japan
MN-246	Urinary incontinence	Phase I clinical trial completed in Q4, 2006; Phase I food effects study completed in Q1, 2007	Mitsubishi Tanabe Pharma Corporation	Worldwide, except Japan and certain countries in Asia
MN-447	Thrombotic disorders	Preclinical	Meiji Seika Kaisha	Worldwide, except Japan and certain countries in Asia
MN-462	Thrombotic disorders	Preclinical	Meiji Seika Kaisha	Worldwide, except Japan and certain countries in Asia

* MediciNova defines a product candidate to be in Phase II/III when the clinical trial design is such that, if the primary endpoint is met, the results may provide confirmatory evidence of efficacy if MediciNova chooses to submit the clinical trial as a pivotal trial and the FDA chooses to review the clinical trial as a pivotal trial. However, in regulatory filings with the FDA, MediciNova has nominally described these clinical trials as Phase II clinical trials.

Table of Contents

Although positive signs of efficacy were obtained in the clinical trials conducted on MN-001 in IC and MN-305 in Generalized Anxiety Disorder, the predefined primary statistical endpoints of the clinical trials were not achieved; therefore, MediciNova would not anticipate submitting either clinical trial as a pivotal trial supporting a NDA to the FDA.

In the Phase II clinical trial conducted on MN-305 in insomnia, the predefined statistical endpoint of the clinical trial was not achieved; therefore, MediciNova terminated any further development of MN-305 for the treatment of insomnia.

MediciNova s Strategy

MediciNova s goal is to build a sustainable biopharmaceutical business through the successful development and commercialization of differentiated products for the treatment of diseases with unmet medical need in high-value therapeutic areas. Key elements of MediciNova s strategy are as follows:

Concentrate MediciNova s resources on its two prioritized product candidates, MN-221 and MN-166. MediciNova may either pursue the development and commercialization of these product candidates itself or enter into strategic alliances with larger pharmaceutical companies to do the same. MediciNova intends to pursue further development of MN-221 for the treatment of acute exacerbations of asthma and COPD exacerbations independently in the United States; however, following completion of the Phase II clinical trial of MN-166 for the treatment of MS in the second quarter of 2008, MediciNova is not planning to pursue any further significant clinical development of MN-166 until it secures a strategic collaboration to further development of such product candidate. MediciNova intends to actively pursue strategic collaborations for these product development programs to draw on the development, regulatory and commercialization expertise and financial resources of larger biotechnology and pharmaceutical partners. MediciNova may also decide to pursue potential partners and potential acquirers of license rights to MediciNova s programs in markets outside the United States, with the goal of retaining significant commercial participation in these product opportunities.

Pursue additional indications and commercial opportunities for MediciNova s prioritized product candidates. MediciNova will seek to maximize the value of MN-221 and MN-166 by pursuing other potential indications and commercial opportunities for such product candidates. For example, MediciNova has rights to develop and commercialize MN-221 for any disease or indication. In addition to the ongoing evaluation of MN-221 for the treatment of acute exacerbations of asthma, MediciNova has recently expanded its development program for MN-221 to evaluate MN-221 for the treatment of COPD exacerbations utilizing its existing IND for MN-221.

Maximize the value of the remainder of MediciNova s diversified pipeline of existing product candidates. MediciNova will conduct development activities strategically on the remainder of its existing product candidates to the extent that it deems any further activities necessary to maintain license rights or maximize their value, while aggressively pursuing a variety of initiatives to monetize these product candidates on appropriate terms.

Opportunistically in-license additional product candidates through MediciNova s global industry relationships. Over the long term, MediciNova intends to expand its pipeline of in-licensed product candidates by continuing to cultivate and strengthen its business relationships with pharmaceutical companies in Japan and other markets. MediciNova believes its ability to leverage industry relationships to acquire product candidates with high potential and existing preclinical or early clinical data from Japanese pharmaceutical companies provides it with a competitive advantage over other drug development companies in the U.S. market. MediciNova believes that additional diversification and expansion of its pipeline of product candidates will help maximize the commercial opportunity and mitigate the risks inherent in drug discovery and development.

Selectively add commercial capabilities as MediciNova s product development programs mature. To ensure its ability to build a sustainable business, MediciNova plans to selectively add commercial

Table of Contents

capabilities to its management team to support its evolution into a commercial entity as its product development programs mature. MediciNova may develop its own marketing and sales organization to promote certain of its product candidates.

Product Development Programs

MediciNova s product development programs address diseases that MediciNova believes are not well served by currently available therapies and represent significant commercial opportunities. MediciNova believes that its product candidates offer innovative therapeutic approaches that may provide significant advantages relative to current therapies.

MediciNova s product acquisitions to date have focused primarily on product candidates with significant preclinical and early clinical testing data that have been developed by MediciNova s licensors outside of the United States. MediciNova utilizes the existing data in preparing INDs or foreign equivalents and designing additional clinical trials to advance the regulatory approval process in the United States or abroad. Following are details of MediciNova s product development programs:

Prioritized Product Candidates

The current state of the development program for each of MediciNova s two prioritized product candidates is described below.

MN-221 for Acute Exacerbations of Asthma

Indication Overview and Market Opportunity. An acute exacerbation of asthma is a long-lasting and severe asthma episode in which asthma symptoms are not responsive to initial bronchodilator or corticosteroid therapy. Acute exacerbations of asthma are an emergency situation that can lead to emergency department treatment and, in some cases, hospital admission or death. Beta-agonist agents are the mainstays of acute treatment for these types of asthma attacks and are included in the recommended standard of care according to the National Guideline Clearinghouse from the Department of Health and Human Services for patients suffering from acute exacerbations of asthma.

Data from the National Center for Health Statistics show that visits to emergency departments for asthma increased from approximately 1.5 million in 1992 to approximately 1.7 million in 2006. Despite significant improvements in the treatment for asthma over the past 20 years, there has not been a corresponding decrease in either hospitalizations or deaths due to asthma according to the National Center for Health Statistics. Data from the National Center for Health Statistics show that approximately 444,000 hospital discharges were attributed to asthma in 2006. In addition, there were approximately 2,563 deaths due to asthma during 2006. According to the National Heart, Lung and Blood Institute, the direct costs associated with hospital care due to asthma were $4.7 billion in 2007. MediciNova believes that there remains an unmet medical need for a safe and effective treatment for acute exacerbations of asthma that could prevent some of these hospitalizations.

Overview of MN-221 in Acute Exacerbations of Asthma. MN-221 is a novel, highly selective ß2-adrenergic receptor agonist being developed for the treatment of acute exacerbations of asthma. MediciNova licensed MN-221 from Kissei Pharmaceutical in February 2004. Preclinical studies conducted in vitro and in vivo showed MN-221 to be highly selective for the ß2-adrenergic receptor. In these studies, the ß1-adrenergic receptor stimulating activity of MN-221 was less than that of other ß2-adrenergic receptor agonists in isolated rat atrium and in vivo cardiac function tests in rats, dogs and sheep, thereby suggesting that the stimulating action of older, less selective ß2-adrenergic receptor agonists on the heart via ß1-adrenergic receptors may be reduced with MN-221 due to its greater ß2-adrenergic receptor selectivity. In vitro studies also suggested that MN-221 may act as only a partial ß1-adrenergic receptor agonist in cardiac tissue, while acting as a full ß2-adrenergic receptor in lung tissue. In addition, a preclinical drug interaction study in dogs demonstrated that, while each of albuterol and MN-221 induced an increase in heart rate independently, the addition of MN-221 by intravenous administration in combination with inhaled albuterol did not add to the heart rate increase associated with inhaled

albuterol alone, which further suggests that MN-221 acts as a partial agonist at ß1-adrenergic receptors. MediciNova believes that this improved receptor binding and functional selectivity may result in fewer cardiovascular side effects than are commonly observed with other ß2-adrenergic receptor agonists used to treat this condition. MediciNova has developed and studied an intravenous formulation of MN-221 appropriate for hospital use.

Clinical Results. MediciNova initiated a randomized, double-blind, placebo-controlled, dose escalation Phase II clinical trial of MN-221 in January 2007 to evaluate the safety and efficacy of MN-221. MediciNova completed this Phase II clinical trial, which involved 23 stable mild-to-moderate asthmatics, in August 2007. At each dose level in the escalation, patients were randomized to receive either a 15-minute intravenous infusion of MN-221 or placebo. This clinical trial achieved statistical significance in its primary endpoint of mean change in forced expiratory volume in one second, or FEV_1, from baseline to measurement at 15 minutes (the end of the infusion) at doses of 10, 16, 30 and 60 micrograms per minute of MN-221 (p-value less than or equal to 0.0006) compared to placebo. MN-221 produced a significant linear, dose-related increase in mean change in post-infusion FEV_1 from baseline (p-value less than or equal to 0.0001) following a 15-minute intravenous infusion of MN-221. Significant improvements in mean change in post-infusion (15 minute) FEV_1 from baseline were observed at doses of 10, 16, 30 and 60 micrograms per minute (p-value less than or equal to 0.0006) and at the dose of 3.5 micrograms per minute (p-value=0.0106) compared to placebo. In the protocol correct population for this clinical trial, which consisted of 21 patients, the dose-related increases in FEV_1 were maintained for four hours (p-value=0.0393) and at eight hours (p-value=0.0424) following the 15-minute infusion of MN-221. MN-221 was well tolerated in this Phase II clinical trial, with only the expected ß2-adrenergic receptor pharmacology noted in some patients (*e.g.*, fall in serum potassium, elevation in plasma glucose, mild headache and mild tremors). There were no clinically significant cardiovascular, electrocardiogram, or ECG, or vital sign changes observed at any dose tested. In addition, no serious adverse effects were observed in this clinical trial.

MediciNova initiated a randomized, open-label, placebo-controlled Phase II clinical trial in June 2008 to evaluate the safety and efficacy of MN-221 in patients with moderate to severe, but stable asthma. MediciNova completed this Phase II clinical trial, which involved 17 patients in two dose cohorts, in September 2008. In one dosing cohort, each patient received MN-221 at a dose of 1,125 micrograms or placebo over one hour by a continuous intravenous infusion. In the other dosing cohort, each patient received MN-221 at a dose of 1,080 micrograms or placebo over two hours by a continuous intravenous infusion. Both infusion rates of MN-221 produced a marked and clinically significant improvement in FEV_1. FEV_1 results were expressed as percent predicted based on standard reference equations accounting for an individual s race, gender, age and height. At the end of the one-hour infusion, FEV_1 increased by 17.5 percent predicted for MN-221 compared to an increase of three percent predicted for placebo. At the end of the two-hour infusion, FEV_1 increased by an average of 12.1 percent predicted for MN-221 compared to an increase of 1.4 percent predicted for placebo. In accordance with the study protocol, no inferential statistical testing was performed. MN-221 was well tolerated by the patients who received either infusion rate of MN-221. There were no clinically significant safety concerns noted among adverse events, ECG data, vital sign data or laboratory assessments collected throughout this clinical trial.

MediciNova initiated a randomized, modified single-blind, placebo-controlled, dose escalation Phase II clinical trial in March 2008 to evaluate MN-221 in patients with severe, acute exacerbations of asthma in emergency departments by holding an investigator s meeting. MediciNova completed this Phase II clinical trial, which included 29 patients (13 treated with standard care only and 16 treated with MN-221 plus standard care) at planned escalating doses of 240 to 1,080 micrograms, in April 2009. All patients received standardized care consisting of inhaled albuterol, ipratropium and oral steroid treatment. No safety concerns with adding MN-221 to standardized care were identified following review of ECG laboratory and adverse experience data. The hospitalization rate among patients treated with standardized care only was 46 percent (six of 13), which was the anticipated rate, compared to a hospitalization rate of 25 percent (four of 16) among patients receiving MN-221 plus standardized care. Improvement in FEV_1 values generally appeared to be greater for patients receiving MN-221 in addition to standardized treatment. As specified in the protocol for this clinical trial, no inferential statistics (*e.g.*, p-values) were calculated for this study.

Table of Contents

Development Plans. In January 2009, MediciNova initiated a randomized, double-blind, placebo-controlled Phase II clinical trial designed to evaluate the safety and efficacy of MN-221 in patients with severe, acute exacerbations of asthma in emergency departments by holding an investigator s meeting. MediciNova plans to employ clinical sites in North America, Australia and New Zealand (including a majority of the clinical sites that participated in the smaller Phase II clinical trial concluded in April 2009) to enroll approximately 200 patients in this clinical trial, which is designed to compare standardized care to standardized care plus MN-221 at a dose of 1,200 micrograms administered over one hour. Once a patient has received the initial standardized care treatment regimen, the patient will be assessed for response to that treatment. If the patient s FEV_1 is less than or equal to 50 percent of predicted and the patient meets all other study entry criteria, the patient will be randomized to receive either MN-221 or placebo. Patients enrolled in the clinical trial will continue to receive standardized care as needed. The primary efficacy endpoint will be improvement in FEV_1. MediciNova anticipates that enrollment of study participants will be complete within nine to twelve months from August 2009.

If MediciNova is successful in completing its planned Phase II clinical trials in a timely manner, it would anticipate conducting an End-of-Phase II meeting with the FDA and subsequently initiating its planned Phase III development program. If MediciNova is successful in completing its planned Phase III clinical trials in a timely manner, it would anticipate filing an NDA with the FDA to seek regulatory approval for MN-221 in the United States.

MN-221 for Chronic Obstructive Pulmonary Disease Exacerbations

Indication Overview and Market Opportunity. A COPD exacerbation is a sustained worsening of the patient s condition, from the stable state and beyond normal day-to-day variations, that is acute in onset and necessitates a change in regular medication in a patient with underlying COPD. Exacerbations are associated with a significant increase in mortality, hospitalization and healthcare utilization. According to data from the Centers for Disease Control and Prevention, an estimated ten million adults had a diagnosis of COPD in the United States in the year 2000. In addition, according to the Centers for Disease Control and Prevention, in the year 2000, there were 119,000 deaths, 726,000 hospitalizations, and 1.5 million hospital emergency department visits due to COPD in the United States. According to a more recent report on respiratory diseases from the Centers for Disease Control and Prevention and National Institutes of Health, the prevalence and age-adjusted death rate for COPD increased more than 30 percent since 1980. The same report also indicated that the direct costs of health care services and indirect costs through loss of productivity related to COPD amounted to approximately $26 billion in 1998. In 2002, according to the Global Initiative for Chronic Obstructive Lung Disease (GOLD) direct costs for COPD were approximately $18.0 billion and indirect costs were approximately $14.1 billion in the United States. In 2007, according to the American Lung Association, the direct costs for COPD were approximately $26.7 billion and indirect costs were approximately $15.9 billion in the United States. MediciNova believes there remains an unmet medical need for a safe and effective treatment for COPD exacerbations that could prevent some of these hospitalizations.

Overview of MN-221 in COPD Exacerbations. In July 2009, MediciNova announced its plan to evaluate MN-221 for the treatment of COPD exacerbations. Inhaled ß2-adrenergic receptor agonists, which are the current standard of care, are often inadequate to control the symptoms of COPD exacerbations. MediciNova believes that MN-221 may offer an immediate intravenous delivery for this life-threatening condition for patients who cannot get the full benefit from treatment with inhaled ß2-adrenergic receptor agonists due to severe bronchoconstriction. In addition, MediciNova believes that MN-221 may offer the potential for fewer cardiovascular side effects than older ß2-adrenergic receptor agonists due to its greater selectivity for the ß2-adrenergic receptor. This could be very significant due to the relative older age population seen in COPD patients who tend to have more underlying heart disease.

Development Plans. Utilizing MediciNova s existing IND for MN-221, MediciNova has initiated a Phase Ib clinical trial to evaluate the safety and efficacy of MN-221 at planned escalating doses in patients with stable, moderate to severe COPD. If MediciNova is successful in completing this Phase Ib clinical trial, it would anticipate moving into a Phase II development program.

Table of Contents

MN-166 for Multiple Sclerosis

Indication Overview and Market Opportunity. MS is an inflammatory disease of the central nervous system, or CNS, in which the body s immune system attacks the protective sheath surrounding nerve fibers. According to the National Multiple Sclerosis Society, MS affects approximately 400,000 people in the United States and approximately 2.5 million people worldwide. In addition, according to the National Multiple Sclerosis Society, approximately 200 people are diagnosed with MS in the United States on a weekly basis. The most obvious effect of MS is its destruction of nerve fibers leading to the loss of muscle control. However, MS also affects multiple CNS functions. Currently, there is no known cure for the disease. According to a Cognos study published by Decision Resources, Inc., relapsing-remitting MS, or RRMS, is the most common type of the disease, accounting for approximately 65 percent of MS patients, and most patients with RRMS eventually progress to the secondary progressive form of the disease. According to sales data included in the most recent annual reports of the leading MS drug companies, including Biogen Idec Inc., Merck Serono S.A., Teva Pharmaceuticals Industries Ltd. and Bayer AG, worldwide sales of drugs to treat MS exceeded $8.0 billion in 2008.

The aim of treatment is to relieve symptoms of acute attacks by reducing the frequency of relapses and limiting the disabling effects of relapses and to minimize disability caused by disease progression. Steroids are used in treating MS to decrease the severity and shorten the duration of the attacks, but they do not change the course of the disease. Corticosteroid use is normally limited to the short-term treatment of MS, perhaps over a period of one to three weeks, as it generally is believed that the side effects and safety risks of long-term corticosteroid therapy outweigh clinical benefits in extended MS treatment. More recently, immunosuppressive agents and techniques have been introduced for the treatment of MS. However, these treatments are only partially effective and certain side effects may preclude their widespread use. These treatments may slow the course of disease progression and mitigate its effects temporarily, but additional drugs are often required to address the various CNS dysfunctions caused by the disease. In addition, many patients continue to experience relapses and progression of the disease despite taking these immunomodulators, as they are generally successful in only reducing the relapse rate by approximately one-third. Currently, the most widely used treatments for MS are beta-interferons; however, beta-interferons require injection, which may result in inflammation at the injection site. Severe flu symptoms also may occur with the beta-interferons. MediciNova believes drugs for the treatment of MS that can be taken with less discomfort, particularly those that can be taken orally, with efficacy equal or better than the available treatments for MS would have widespread appeal.

Overview of MN-166 in Multiple Sclerosis. MediciNova licensed MN-166 from Kyorin Pharmaceutical in October 2004. MN-166 has been marketed in Japan and Korea since 1989 to treat cerebrovascular disorders and bronchial asthma. In preclinical in vivo and in vitro studies, MN-166 inhibited leukotriene activity, phosphodiesterases and nitric oxide synthase, all of which are inflammatory mechanisms known to be involved in MS. These studies also suggested that MN-166 may suppress the production of pro-inflammatory cytokines (IL-1ß, TNF-~) and enhance the production of the anti-inflammatory cytokines (IL-4, IL-10). Based on the potential mechanisms of action of MN-166, its clinical safety history in Japan, the results of pilot studies conducted by Kyorin Pharmaceutical in MS patients and the issuance of a U.S. patent covering the method of using MN-166 to treat the disease, MediciNova decided to pursue development of MN-166 as a novel, oral agent for the treatment of MS.

Clinical Results. Based on its anti-inflammatory activity and safety profile, MN-166 was evaluated for potential activity in MS in two pilot clinical trials sponsored by academic investigators in Japan. In one open-label pilot clinical trial, the investigators studied the effects of MN-166 on relapse rates in six MS patients who had a mean of four relapses per year. Following 12 to 20 months of treatment with MN-166, the average relapse rate was reduced. Over this time frame, there was no significant change in the mean Expanded Disability Status Score, or EDSS, a measure of MS drug efficacy and disease progression. No side effects of MN-166 were reported in this clinical trial. In a second pilot trial involving 12 MS patients receiving MN-166 for four weeks, MN-166 tended to normalize the levels of several chemical mediators of inflammation, including tumor necrosis

factor alpha and interferon gamma. These two pilot clinical trials in MS were not performed and analyzed in accordance with standards that will allow MediciNova to use them to support a marketing application to the FDA.

MediciNova initiated a two-year Phase II multi-center, randomized, double-blind, placebo-controlled clinical trial of MN-166 for the treatment of patients with relapsing MS in August 2005. This clinical trial involved 297 patients with relapsing MS in several countries in Eastern Europe. Patients received either 30 mg of MN-166 per day, 60 mg of MN-166 per day or a placebo. In March 2007, MediciNova announced one-year results from this clinical trial. The one-year results, which included a number of efficacy endpoints for this clinical trial, showed a significant increase in the proportion of patients who remained relapse-free over the first 12 months of treatment with 60 mg per day of MN-166 compared to placebo (p-value=0.03). The time to first relapse was also significantly increased in patients treated with 60 mg of MN-166 per day compared to placebo (p-value=0.04). Positive trends were also observed in the annualized relapse rate (p-value=0.08) and number of relapses (p-value=0.10) among patients who completed the first 12 months of treatment with 60 mg of MN-166 per day compared to those patients completing the first 12 months of treatment on placebo. A significant reduction in brain volume loss (p-value=0.04), as measured by cranial magnetic resonance imaging, or MRI, scans, was observed in patients treated with 60 mg per day of MN-166 compared to placebo. Loss of brain volume on MRI scans has been shown to correlate with clinical progression and disability in MS patients. Positive trends were also observed in several other radiological outcome measures, including the volume of gadolinium-enhancing (T1) lesions (p-value=0.09), in patients treated with 60 mg of MN-166 per day compared with placebo. However, no reduction in the cumulative number of active (gadolinium-enhancing (T1) and non-enhancing new/enlarging (T2)) lesions on cranial MRI scans over 12 months of treatment was observed in patients treated with MN-166 compared to placebo, which was the protocol-defined primary endpoint of this clinical trial. No clinical or radiological benefit was observed in patients treated with 30 mg per day of MN-166. MN-166 was well tolerated at all doses in this clinical trial. Eighty-nine percent of patients completed the first 12 months of this clinical trial with only mild gastrointestinal side effects observed with MN-166 compared to placebo (3-6 percent vs. 1-3 percent, respectively). In October 2007, these one-year results were presented at the 23rd Congress of the European Committee for Treatment and Research of Multiple Sclerosis, or ECTRIMS, and the 12th Conference of Rehabilitation in Multiple Sclerosis, or RIMS.

In February 2008, MediciNova announced additional data from a double-blind analysis of the first year of treatment from the two-year Phase II clinical trial of MN-166 for the treatment of MS. Following the recommendation of its Scientific Advisory Board, MediciNova performed this analysis using MRI data collected from 292 patients with relapsing forms of MS who were randomly assigned to receive daily oral treatment with placebo or 30 or 60 mg per day during year one of this two-year clinical trial. The analysis showed that MN-166 decreased the formation of black holes, which are permanent brain lesions believed to indicate the death of nerves in the brain, on MRI scans in patients participating in this clinical trial, thereby adding support to MediciNova s belief that MN-166 may provide neuroprotection in relapsing MS. The data demonstrated that a 60 mg per day dosing regimen of MN-166 significantly reduced the proportion of new T1 gadolinium-enhancing or new T2 lesions identified at month two of the clinical trial that evolved into persistent black holes, or PBHs, at month ten compared to placebo (RR=0.63, p-value=0.011). Treatment with a 30 mg per day dosing regimen of MN-166 showed a trend toward reduced risk of new lesion evolution to PBHs compared to placebo (RR=0.735, p-value=0.074). In June 2008, additional data from an analysis of the first year of treatment was presented at the 18th Meeting of the European Neurological Society.

In April 2008, MediciNova announced the results of the completed two-year Phase II clinical trial. In the second year of the study, all patients received active drug. Patients who received 30 or 60 mg of MN-166 per day during the first year of the study remained on the assigned dose for the second 12 months of the study; patients who received placebo during the first 12 months of the study were randomized to receive either 30 or 60 mg of MN-166 per day (double-blind maintained) during the second 12 months of the study. Clinical and radiological outcomes were evaluated. MN-166 treatment resulted in positive findings on three independent measures indicative of a potential disease-progression modifying effect. First, sustained disability progression was

Table of Contents

significantly less likely (by approximately 50 percent) in those patients receiving MN-166 at either 30 or 60 mg per day for 24 months than in those patients receiving the drug for 12 months (p=0.026). Sustained disability progression was measured as a greater than or equal to 1.0 point increase from baseline in the EDSS score for four consecutive months. Second, the significant reduction in brain volume loss (p=0.035), as measured by cranial MRI scans, observed after 12 months in patients treated with 60 mg per day of MN-166 compared to placebo was again demonstrated in year two of the study. Brain volume loss was significantly less (p=0.030) in patients receiving 60 mg per day of MN-166 for 24 months compared to the other treatment groups. Third, MN-166 treatment at 60 mg per day significantly reduced the relative risk for conversion of new inflammatory lesions identified at month two to PBHs an MRI indicator of neuronal loss, eight months later at month ten by 37 percent (p=0.011); such lesions that remain unchanged for eight months are considered PBHs as compared to transient inflammatory lesions that are more closely associated with relapses. MN-166 treatment at 30 mg per day resulted in a trend toward reducing evolution to PBH (p=0.074). MN-166 was well tolerated at all doses over the two years of this clinical trial, with the most common adverse events possibly related to MN-166 involving mild, transient gastrointestinal disturbances and depression. Of the 297 patients enrolled in this clinical trial, 245 patients completed the full two years of treatment. In September 2008, data from this completed two-year clinical trial was presented at the World Congress for Treatment and Research in MS.

Development Plans. At present, MediciNova is not planning to undertake any further significant clinical development of MN-166 until such time that it is successful in entering into a strategic collaboration to support further clinical development and commercialization of MN-166. MediciNova is actively pursuing potential partners for such purpose.

Other Product Candidates

MediciNova intends to limit development activities on the balance of its ten product candidates. For each of these product candidates, MediciNova plans to conduct development activities only to the extent that it deems any further activities necessary to maintain its license rights or maximize its value, while pursuing a variety of initiatives to monetize such product candidate on appropriate terms. The status of the development program for each of these non-prioritized product candidates is described below.

MN-001 for Asthma

Indication Overview and Market Opportunity. Asthma is a chronic inflammatory disease of the airways in which symptom control is the key to effective disease management. Alleviation of acute asthmatic symptoms and blocking of late phase inflammation are both important to asthma therapy. According to the American Lung Association and the Global Initiative for Asthma, there are approximately 22.9 million asthma patients in the United States and over 300 million asthma patients worldwide.

According to the most recent annual reports of the leading asthma drug companies, GlaxoSmithKline plc, Merck & Co., Inc., AstraZeneca plc and Roche Holding Ltd., worldwide sales of asthma therapeutics increased to over $17.0 billion in 2008. Leading treatments currently include inhaled corticosteroids, bronchodilators and leukotriene antagonists. Worldwide sales of the Flovent® and Pulmicort® inhaled corticosteroids were over $2.6 billion in 2008 according to the annual reports of GlaxoSmithKline plc and AstraZeneca plc. Combination products, consisting of inhaled corticosteroids plus long-acting beta agonists, added an additional $8.6 billion in sales in 2008. Inhaled steroids, such as Flovent® (fluticasone) and Vanceril® (beclomethasone), are more broadly effective in blocking late phase inflammation, but their general side effects require careful monitoring. Leukotriene antagonists, such as Singulair® (montelukast) or Accolate® (zafirlukast), became available as a new asthma therapy in the late 1990s. These drugs block the actions of leukotrienes, which are pro-inflammatory chemical mediators, and the subsequent inflammation caused by eosinophil migration to the lungs. According to Merck & Co., Inc. s 2008 Annual Report, worldwide sales of Singulair®, a leading leukotriene antagonist, were $4.3 billion in 2008.

Table of Contents

Overview of MN-001 in Asthma. MN-001 is a novel, orally bioavailable compound being developed for the treatment of bronchial asthma. MediciNova licensed MN-001 from Kyorin Pharmaceutical in March 2002. In in vivo preclinical studies conducted by Kyorin Pharmaceutical and MediciNova, MN-001 combined the positive attributes of the leukotriene antagonists and inhaled steroids, while maintaining an acceptable safety profile.

In preclinical pharmacology studies, MN-001 inhibited airway hyper-reactivity through a reduction of airway inflammation. In vitro studies and animal studies also suggested that MN-001 may affect many of the downstream mechanisms activated by mast cell degranulation, which is the release of chemicals that cause inflammation. MN-001 also demonstrated that it is a potent inhibitor of pro-inflammatory enzymes in vitro (*e.g.*, 5-lipoxygenase and phosphodiesterase 4), as it prevented migration of inflammatory cells to the lungs of rodents in these studies. In addition, in guinea pig asthma models, MN-001 was more selective than steroids in affecting cells involved in the inflammatory process and not those involved in cellular immunity.

Clinical Results. MN-001 has proven to be well tolerated in early clinical testing. Treatment-related adverse effects, primarily consisting of gastrointestinal discomfort such as diarrhea, loose stools, nausea and upper abdominal pain, were mild, transient and reversible. These adverse effects were consistent with findings in preclinical studies.

MediciNova conducted a randomized, double-blind, placebo-controlled, multi-center Phase II clinical trial in patients with mild-to-moderate asthma, which was completed in the fourth quarter of 2005. In this clinical trial, 147 patients were randomly assigned to receive placebo or MN-001 tablets in one of three oral dosing regimens for four weeks. The primary endpoint of the trial was achieved with a statistically significant improvement in FEV_1 after four weeks of treatment with 500 mg of MN-001 at three times daily dosage, or TID, compared to placebo (p-value=0.021; intent-to-treat, observed cases). A similar trend was observed for the 750 mg two times daily dosage of MN-001 (p-value=0.058). Positive trends in secondary outcome measures were also observed in the 500 mg TID treatment group, including serial spirometry, morning and evening peak flow rates, and provocative concentration causing a 20 percent fall in FEV_1, or PC20, values in a methacholine challenge test, each of which is a common measure of respiratory function. MN-001 was well tolerated in this clinical trial with 89 percent of patients completing four weeks of treatment. There was no apparent difference between placebo and any of the active treatment groups in adverse events leading to discontinuation or in adverse events attributable to treatment.

MN-001 for Interstitial Cystitis

Indication Overview and Market Opportunity. IC is a chronic disease of the bladder characterized by urinary frequency and urgency, nighttime urination and pelvic and bladder pain. It is widely believed that IC is due to an altered or defective bladder lining and an increased number of activated bladder mast cells, which are specialized cells that release biochemicals and cause inflammation. According to the National Kidney and Urologic Diseases Information Clearinghouse, which is a division of the National Institutes of Health, an estimated 1.3 million patients suffer from IC in the United States, 90 percent of whom are women. The prevalence of IC in Europe is approximately one-third that of the United States. MediciNova believes that IC is currently under diagnosed and that the market for drugs that treat IC will likely expand with the introduction of effective new treatments.

Overview of MN-001 in Interstitial Cystitis. MN-001 is a novel, orally bioavailable, anti-inflammatory compound being developed for the treatment of IC. MediciNova licensed MN-001 from Kyorin Pharmaceutical in March 2002. Data that MediciNova collected in connection with the development of MN-001 for bronchial asthma and data collected by Kyorin Pharmaceutical provided MediciNova with a strong scientific rationale for evaluating MN-001 as an oral treatment for IC. MN-001 has been shown to block a number of the inflammatory mechanisms activated by mast cell degranulation that are important in the pathogenesis of inflammatory disorders, including IC and asthma (*e.g.*, leukotriene receptor antagonism and inhibition of phosphodiesterases III and IV, 5-lipoxygenase, phospholipase C and thromboxane A2). In addition, MN-001 produced anti-inflammatory effects in a variety of rodent models of IC and asthma; in these models, MN-001 reduced bladder hyper-reactivity much in the same way that it reduced airway hyper-reactivity in the lung.

Table of Contents

Clinical Results. MediciNova conducted a randomized, double-blind, placebo-controlled multi-center Phase II/III clinical trial in patients with moderate-to-severe IC, which was completed in the first quarter of 2007. This clinical trial involved 305 patients at 37 clinical sites in the United States. Results from this clinical trial indicated that, while well-tolerated, MN-001 did not show a statistically significant clinical benefit compared to placebo on the primary endpoint (to be much or very much improved overall on a patient-rated global response assessment) at the doses tested in this clinical trial (500 mg once or twice a day for eight weeks). Results from this clinical trial also indicated that IC patients were more than twice as likely to respond on 500 mg of MN-001 administered twice a day compared to placebo (25 percent compared to 12 percent, p-value=0.04) after four weeks of treatment. This difference, however, was not observed at eight weeks due to continued improvement among placebo-treated patients. The response rate of patients treated with 500 mg of MN-001 once a day did not significantly differ from placebo at either four or eight weeks.

MN-029 for Solid Tumors

Indication Overview and Market Opportunity. The American Cancer Society estimates that more than 1.5 million Americans will be diagnosed with cancer in 2009, of which more than 750,000 patients will be diagnosed with lung, prostate, colon, rectum or breast solid tumor cancers. The American Cancer Society also estimates that approximately 560,000 patients are expected ultimately to die from cancer in 2009. According to Med Ad News, the market for solid tumor cancer therapeutics exceeded $26.0 billion in 2007.

Tumor blood vessels are a promising target for cancer therapy. Compounds that act to deprive tumors of their blood supply fall into two classes: angiogenesis inhibitors and vascular disrupting agents, or VDAs. Angiogenesis inhibitors block the formation of new blood vessels formed in response to tumor growth, whereas VDAs disrupt blood flow through existing tumor blood vessels. MediciNova believes that VDAs have a potential advantage over angiogenesis inhibitors because VDAs work on existing tumor blood vessels and can kill hundreds of cancer cells that depend on that blood supply with even a brief interruption in blood flow, rather than simply slowing tumor growth by blocking new blood vessel formation.

Overview of MN-029 in Solid Tumors. MN-029 is a novel, small molecule VDA being developed for the treatment of solid tumors. MediciNova licensed MN-029 from Angiogene Pharmaceuticals in June 2002. Several preclinical pharmacology studies conducted by Angiogene Pharmaceuticals and MediciNova have assessed the mechanism of action and anti-tumor activity of MN-029 in vivo in rodent models of breast adenocarcinoma, colon carcinoma, lung carcinoma and KHT sarcoma. In these studies, MN-029 damaged poorly formed tumor blood vessels by weakening tumor blood vessel walls and causing leakage, clotting and eventual vascular shutdown within the tumor. These studies suggest that MN-029 acts quickly and is rapidly cleared from the body, which may reduce the potential for some adverse effects commonly associated with chemotherapy. Shutdown of tumor blood flow in tumor models was confirmed through the use of dynamic contrast-enhanced magnetic resonance imaging, or DCE-MRI.

Clinical Results. To date, MediciNova has conducted two Phase I clinical trials of MN-029 for the treatment of solid tumors. MediciNova completed one Phase I clinical trial of MN-029 in the second quarter of 2006 and one Phase I clinical trial in the fourth quarter of 2007.

In the first Phase I clinical trial, MN-029 was administered as an intravenous infusion once every three weeks with a 20-day recovery period between doses (one cycle). Results from this clinical trial showed that MN-029 was well tolerated at doses that reduced tumor blood flow. A maximum tolerated dose of 180 mg/m^2 per dose was established in this clinical trial. The most common side effects of MN-029 were characteristic of other VDAs and included nausea, vomiting, fatigue and diarrhea. Nine of 34 patients with advanced solid tumors for whom no standard therapy was available had stable disease after three cycles of treatment. Six patients had prolonged (greater than six months) stable disease. To date, two of these patients remain on therapy with MN-029 under compassionate use Investigator INDs and had stable disease (one with melanoma after 24 months of treatment and one with carcinoid tumors after 33 months of treatment) upon their transition from

Table of Contents

MediciNova s clinical trial to compassionate use programs in the fourth quarter of 2007. Following the transition of these patients to compassionate use programs, MediciNova has not received, nor will it receive, any further data on these patients unless a serious adverse effect occurs. Although no patients showed objective responses based on Response Evaluation Criteria in Solid Tumors, or RECIST criteria, which is tumor length on computed tomography, or CT, or MRI scans, semi-automated measurements of tumor volumes from CT scans showed a measureable reduction in tumor burden in the subject with the largest reduction in tumor blood flow (Ktrans -40 percent). Tumor blood flow reduction assessed by DCE-MRI was recorded at doses greater than or equal to 120 mg/m^2.

In the second Phase I clinical trial, MN-029 was administered as an intravenous infusion every seven days (days 1, 8, 15) followed by a 13-day recovery period (one cycle). Results from this clinical trial showed that MN-029 was well tolerated. The maximum dose was limited to 180 mg/m^2 per dose based on the results of the other Phase I trial that employed a less aggressive dosing schedule. The most common side effects of MN-029 in this clinical trial included nausea, vomiting, arthralgia and headache. Eleven of 20 patients with advanced solid tumors for whom no standard therapy was available had stable disease after two cycles of treatment. Four subjects continued on extended cycles of MN-029 treatment. Based on RECIST criteria, one patient with metastatic pancreatic cancer had an overall partial response with a duration of 74 days. Seven patients had stable disease with a median duration of 83 days.

MN-305 for Generalized Anxiety Disorder/Insomnia

Indication Overview and Market Opportunity. The essential characteristic of Generalized Anxiety Disorder is excessive, uncontrollable worry about everyday events. This constant worry affects daily functioning and can cause severe physical symptoms. Generalized Anxiety Disorder can occur with other anxiety disorders, depressive disorders or substance abuse. Generalized Anxiety Disorder is often difficult to diagnose because it is not triggered by a specific object or situation. The intensity, duration and frequency of the worry are disproportionate to the issue. As a result, Generalized Anxiety Disorder tends to interfere with the patient s performance of tasks and ability to concentrate. According to the National Institute of Mental Health, anxiety disorders affect approximately 40 million American adults, of whom approximately 6.8 million suffer from Generalized Anxiety Disorder. Anxiety disorders are the most prevalent of neuropsychiatric conditions, yet are generally considered to be under-diagnosed and therefore undertreated. Therefore, MediciNova believes that there is a significant opportunity for the introduction of new anxiety reducing drugs.

A variety of pharmacologic agents are used to manage patients with anxiety disorders. Benzodiazepines have been the mainstay of the treatment of acute anxiety since the late 1960s. However, their efficacy as a treatment has been limited by problems faced in chronic use due to their sedative effects. In the late 1980s, buspirone was introduced and widely used even though it takes effect slowly. Buspirone was well tolerated and relatively safe. During the late 1990s, newer anti-depressants, notably the specific serotonin reuptake inhibitors, or SSRIs, were increasingly used to treat anxiety as well. While effective, the use of SSRIs may result in a variety of undesirable side effects, including agitation and sexual dysfunction. Also, SSRIs may take weeks to exert their beneficial effects.

Overview of MN-305 in Generalized Anxiety Disorder/Insomnia. MN-305 is a serotonin receptor agonist with high affinity and selectivity for the serotonin 5-HT1A receptor subtype. Drugs that act through this mechanism, such as buspirone, have been proven to be clinically effective in treating Generalized Anxiety Disorder. MediciNova licensed MN-305 from Mitsubishi Pharma Corporation, now Mitsubishi Tanabe Pharma Corporation, in April 2004. MN-305 has been shown to be more potent than buspirone and to exhibit anti-anxiety efficacy in a wide range of preclinical rodent models. For example, in a social interaction test, MN-305 prolonged the duration of social interaction in rats. Preclinical and clinical studies conducted by Mitsubishi Tanabe Pharma Corporation and MediciNova also suggest that MN-305 may have a more rapid onset of action than buspirone.

Table of Contents

Clinical Results. Preliminary evidence of anti-anxiety efficacy was provided by a six-week, open-label, fixed-flexible dose Phase II clinical trial conducted by Mitsubishi Tanabe Pharma Corporation in Japan in 61 patients with neurotic disorders. The neurotic disorders included Generalized Anxiety Disorder, panic disorder, agoraphobia, mixed anxiety and depressive disorder and dysthymia. MN-305 was well tolerated, with headaches being the most common side effect in this clinical trial. At the end of the clinical trial, the mean Hamilton Rating Scale for Anxiety score, or HAM-A score, which is a scale used to measure the intensity of anxiety symptoms, was reduced compared to the pre-treatment value. Similarly, a majority of the patients were rated Moderately Improved or better following treatment with MN-305. In addition, MN-305 was well tolerated in several clinical trials conducted by Mitsubishi Tanabe Pharma Corporation in healthy volunteers and patients with anxiety disorders and Major Depressive Disorder. These studies did not evaluate the reduction of anxiety symptoms in patients that were not treated with MN-305.

The IND for MN-305 was transferred to MediciNova from Mitsubishi Tanabe Pharma Corporation, which enabled MediciNova to initiate a Phase II/III randomized, double-blind, placebo-controlled clinical trial in 416 patients with Generalized Anxiety Disorder in the first quarter of 2005. MediciNova completed this clinical trial in the second quarter of 2006. The results revealed trends for improvement in all efficacy outcome measures. Statistically significant improvements in the total HAM-A score and in anxious mood, which is item 1 of the HAM-A score and was a secondary endpoint in this clinical trial, were observed through eight weeks of treatment. However, statistical significance on change from baseline of the total HAM-A score after ten weeks of treatment, which was the primary outcome measure of this clinical trial, was not achieved. MN-305 was well tolerated at all doses in this clinical trial, and MediciNova believes the findings were sufficiently positive to warrant further clinical evaluation of this product candidate.

MediciNova analyzed the results from its Phase II/III clinical trial of MN-305 in Generalized Anxiety Disorder and performed in-depth analyses of subgroups that showed statistically significant improvement in certain aspects of the HAM-A score (*e.g.*, insomnia). Based on these analyses, MediciNova initiated a Phase II proof-of-concept clinical trial of MN-305 for the treatment of insomnia in the first quarter of 2007 to assess the effects of three dosages of MN-305 (1 mg, 3 mg and 6 mg) and placebo, all administered orally approximately 60 minutes before bedtime. This clinical trial, which involved 74 subjects at ten study centers in the United States, was completed in the fourth quarter of 2007. This clinical trial failed to achieve statistical significance in its primary endpoint of reducing Wake (time) After Sleep Onset, or WASO. MN-305 was well tolerated in this clinical trial with no clinically significant adverse events observed at any dose tested, and there was no evidence of any decrements in psychomotor performance, as assessed in digit symbol substitution and symbol copying tests, in patients treated with MN-305. Based upon the results of this clinical trial, MediciNova decided to terminate the evaluation of MN-305 for the treatment of insomnia.

MN-221 for Preterm Labor

Indication Overview and Market Opportunity. Preterm labor is caused by the onset of uterine contractions before term. According to a November 2002 publication in Obstetrics & Gynecology, preterm labor is the leading cause of neonatal mortality and a substantial portion of all birth-related short and long-term morbidity. Successful inhibition of premature birth is known to reduce the risk of complications. Despite extensive research into preterm labor during the past several decades, the rate of premature births has not decreased. According to the National Vital Statistics Reports issued by the U.S. Department of Health and Human Services, there were more than four million births in the United States in 2005, almost 13 percent of which were considered premature births. The U.S. Department of Health and Human Services estimates that the cost of intensive care unit, or ICU, services for premature infants is over $15.0 billion annually. In addition, according to a September 2004 publication in British Medical Journal, approximately six percent to seven percent of all births in Europe occur before term.

Currently, therapy for preterm labor remains targeted at uterine contractions. ß2-adrenergic receptor agonists are generally used as first-line treatments for premature labor. The only FDA-approved treatment for

Table of Contents

preterm labor is ritodrine, a ß2 agonist. However, ritodrine has not been available for sale in the U.S. market since 1999. The more widely used treatment for preterm labor is another ß2 agonist, terbutaline; however, this drug is not approved by the FDA for preterm labor. Atosiban, an oxytocin antagonist, is available in Europe, but was denied regulatory approval in the United States. The usefulness of these ß2-adrenergic receptor agonists is often limited by the adverse reactions they produce, which include cardiovascular side effects, such as heart palpitations. As a result, MediciNova believes that there is a need for treatments with better safety and tolerability profiles that are effective in reducing the premature birth rate and/or providing for longer gestation.

Overview of MN-221 in Preterm Labor. MN-221 is highly-selective ß2-adrenergic receptor agonist being developed for the treatment of preterm labor. MediciNova licensed MN-221 from Kissei Pharmaceutical in February 2004. Preclinical testing in vitro and in vivo showed MN-221 to be more selective for the ß2-adrenergic receptor than other ß2-adrenergic receptor agonists currently used to treat preterm labor. Moreover, in vitro studies also suggested that MN-221 may act as only a partial ß1-adrenergic receptor agonist in cardiac tissue, while acting as a full ß2-adrenergic receptor in the uterus. This improved receptor binding and functional selectivity may result in fewer cardiovascular side effects than are commonly observed with other ß2-adrenergic receptor agonists used to treat this condition. In preclinical pharmacology studies in pregnant rats and sheep conducted by Kissei Pharmaceutical, MN-221 reduced the number of spontaneous or drug-induced uterine contractions. Furthermore, in these studies, MN-221 delayed both normal and preterm labor in rats and caused a marked increase in the bodyweight of rat pups as a result of prevention of premature birth. In rat and sheep studies which compared MN-221 to ritodrine and/or terbutaline, the potency of MN-221 was greater than those ß2-adrenergic receptor agonists.

Clinical Results. To date, pharmacokinetic and safety data has been generated from human experience with MN-221 through Phase I clinical studies in healthy male and non-pregnant female volunteers conducted by Kissei Pharmaceutical in Japan and the U.K. and a Phase I clinical trial in the United States conducted by MediciNova. A total of 244 healthy subjects received intravenous infusions of either MN-221 or a placebo. MN-221 was generally well tolerated. A pilot double-blind, placebo-controlled Phase II clinical trial of MN-221 was completed in 2004 by Kissei Pharmaceutical in seven women in preterm labor in the U.K. A trend towards a reduction in the number of uterine contractions was observed in MN-221-treated women and, as a result, only limited conclusions could be drawn from this clinical trial. No serious adverse events related to MN-221 were observed in this clinical trial.

MediciNova initiated a Phase I clinical trial in healthy pregnant women in the third quarter of 2006. Ten healthy, pregnant volunteers who were not in labor participated in this clinical trial, which was completed in the second quarter of 2007. The volunteers received a single-dose intravenous infusion regimen of MN-221, consisting of two consecutive rounds of a 15-minute priming and a 105-minute maintenance infusion to deliver 294 micrograms of MN-221 over four hours. The primary objectives of this clinical trial were to determine the pharmacokinetics, safety and tolerability of this infusion regimen of MN-221 in pregnant women. No significant safety concerns with MN-221 were identified in this clinical trial.

MN-246 for Urinary Incontinence

Indication Overview and Market Opportunity. Urinary incontinence occurs when normal regulation of bladder function is lost. According to the National Kidney and Urologic Disease Information Clearinghouse, there are over 13 million persons in the United States suffering from urinary incontinence.

The market for drugs to treat urinary incontinence is expected to grow substantially as more patients seek treatment and as newer drugs are introduced to the market. According to Datamonitor, the global market for urinary incontinence is projected to grow to $4.0 billion in 2010. The current marketplace is dominated by anti-cholinergic drugs that are modestly effective and produce treatment-limiting side effects such as dry mouth. According to Pfizer Inc. s 2008 annual report, sales of its market leading drug, Detrol®, were approximately $1.2 billion in 2008.

Table of Contents

Overview of MN-246 in Urinary Incontinence. MN-246 is a novel ß3-adrenergic receptor agonist being developed for the treatment of urinary incontinence. MediciNova licensed MN-246 from Mitsubishi Pharma Corporation, now Mitsubishi Tanabe Pharma Corporation, in December 2004. MediciNova believes that MN-246 represents a new approach to treating urinary incontinence and may have advantages over existing therapies, including potential improvements in efficacy through increases in bladder volume with decreases in involuntary bladder contractions and the absence of anti-cholinergic side effects, such as dry mouth. In preclinical studies in rats conducted by Mitsubishi Tanabe Pharma Corporation, MN-246 was more potent and active than oxybutynin and propiverine in increasing bladder volume. In addition, the studies showed that MN-246 produced little or no increase in residual urine volume and no anti-cholinergic side effects in rats. MN-246 also increased bladder volume in preclinical studies conducted on dogs and monkeys.

Clinical Results. MediciNova initiated a double-blind, randomized, placebo-controlled, single escalating dose Phase I clinical trial of MN-246 for the treatment of urinary incontinence in the first quarter of 2006. This clinical trial, which involved healthy volunteers to evaluate the safety, tolerability and pharmacokinetics of MN-246, was completed in the fourth quarter of 2006. MediciNova also conducted a Phase I food effects study in healthy volunteers, which was completed in the first quarter of 2007. MN-246 was tolerated in both clinical trials.

MN-447 and MN-462 for Thrombotic Disorders

Indication Overview and Market Opportunity. Despite advances in the treatment of cardiovascular disease, or CVD, more than 910,000 Americans still die of heart disease annually according to the American Heart Association, constituting 37 percent of all deaths. In addition, there are over 70 million individuals in the United States that currently live with some form of heart disease, which can include high blood pressure, CVD, stroke, angina (chest pain), myocardial infarction (heart attack) and congenital heart defects. According to Datamonitor, worldwide sales of antithrombotic drugs are forecasted to reach approximately $14.8 billion in 2011. MediciNova believes that there remains an unmet medical need for safe and effective treatments for thrombotic conditions, including acute coronary syndrome, myocardial infarction, peripheral arterial disease and percutaneous coronary interventions.

According to the Centers for Disease Control, one out of every three Americans has CVD, and heart disease and stroke account for almost six million hospitalizations each year and cause disability for almost ten million Americans over the age of 65. According to the Centers for Disease Control, CVD remains the leading cause of death in the United States for both men and women among all racial and ethnic groups. In addition, heart disease is the leading cause of death for all Americans and causes more deaths than cancer and accidents combined based on data from the National Center for Health Statistics, the National Center for Health Promotion and the Centers for Disease Control and Prevention. Given the high mortality and morbidity rates associated with CVD, MediciNova believes there is an urgent need for more targeted therapies that can intervene in known molecular pathways and minimize damage to the heart and related tissues.

Overview of MN-447 and MN-462 in Thrombotic Disorders. MN-447 and MN-462 are novel, small molecule antithrombic agents being developed for the treatment of various thrombotic disorders. MediciNova licensed MN-447 and MN-462 from Meiji Seika Kaisha in November 2006.

MN-447 is a cardioprotective, anti-platelet agent that acts as a dual antagonist of glycoprotein, or GP, IIbIIIa and integrin alpha-v-beta-3, or avß3, receptors that play key roles in blood clot formation and various cell behaviors and functions such as leukocyte adhesion. Preclinical studies have demonstrated that MN-447 acts downstream by inhibiting the final common pathway of platelet aggregation the cross-linking of platelets via fibrinogen bridges to GP IIbIIIa receptors. Inhibition of integrin avß3 receptors has been linked to an inhibition of leukocyte adhesion to endothelium (the layer of cells lining blood vessels), reduction of hyperplasia (abnormal cellular proliferation) and lumen stenosis (blood vessel constriction) in response to vascular injury. In animal models of myocardial infarction and unstable angina, the dual inhibitory activity of MN-447 produced superior

Table of Contents

cardioprotective efficacy, such as reduction in infarct size after reperfusion (restoration of blood flow) compared to inhibition of the GP IIbIIIa receptor alone, and showed a low risk of bleeding.

MN-462 is a selective inhibitor of a key enzyme in the intrinsic antifibrinolytic mechanism, plasma carboxypeptidase B, or CPB, and also called activated thrombin-activatable fibrinolysis inhibitor, or TAFIa, which inhibits physiological fibrinolysis, or the lysis or dissolving of blood clots. By enhancing intrinsic fibrinolysis through plasma CPB inhibition, MN-462 has the potential to reduce and prevent thrombus or blood clot formation, as well as dissolve formed thrombus. In preclinical studies, MN-462 demonstrated significant fibrinolytic-enhancing and anti-thrombotic activities as monotherapy in several thrombosis models, as well as activities when used as an adjunct to fibrinolytics such as tissue plasminogen activator, or t-PA. The effect of MN-462 in enhancing the intrinsic fibrinolytic process was also observed to result in a low risk of bleeding.

Sales and Marketing

MediciNova currently has no sales and marketing capabilities. Within the United States, MediciNova may develop, at the appropriate time, a focused product-driven marketing and sales organization to promote a product development program. For example, MediciNova may develop a commercial organization in the United States to focus on promoting MN-221 for the treatment of acute exacerbations of asthma and COPD exacerbations to physicians, nurses and pharmacy directors in the emergency room setting. MediciNova believes that it can achieve its strategic goals for MN-221 by deploying an experienced sales organization supported by an internal marketing infrastructure to target institutions with emergency room departments. The size and other features of MediciNova s sales and marketing organization, if any, will be influenced by the timing of regulatory approvals for its product candidates, the willingness of its partners to agree to co-promotion, if applicable, and the investment involved.

Manufacturing

MediciNova relies on third parties to manufacture bulk API and finished investigational products for research, development, preclinical and clinical trials. MediciNova expects to continue to rely on third-party manufacturers for the manufacture of the API and finished products for its clinical and any future commercial production requirements. MediciNova believes that there are several manufacturing sources available at commercially reasonable terms to meet its clinical requirements and any future commercial production requirements for the API of its products and the finished drug products.

Pursuant to the terms of MediciNova s license agreement with Kissei Pharmaceutical for MN-221, MediciNova is currently negotiating with Kissei Pharmaceutical for the commercial supply of the API for MN-221. If MediciNova enters into a supply agreement with Kissei Pharmaceutical, it will purchase from Kissei Pharmaceutical all API that it requires for the commercial supply of MN-221, if such product candidate is approved for commercial sale by the FDA or other regulatory authorities.

In March 2009, MediciNova entered into an agreement with Hospira for the completion of pre-commercialization manufacturing development activities and the manufacture of commercial supplies of finished product for MN-221 utilizing Hospira s proprietary ADD-Vantage drug delivery system, if such product candidate is approved for commercial sale by the FDA or other regulatory authorities. Under the terms of the agreement with Hospira, Hospira will receive development fees from MediciNova upon completion of specified development activities, which MediciNova will expense as the costs are incurred. MediciNova is also obligated under the agreement to purchase a minimum number of units each year following regulatory approval, which number is based on MediciNova s forecasts submitted to Hospira on a rolling basis. In addition to the agreement with Hospira, MediciNova anticipates entering into a commercial supply agreement with a contract manufacturer for finished product of MN-221 in standard vials. However, at present, MediciNova does not have any agreements established regarding the commercial supply of MN-221 in standard vials or for the API or finished product of any of its product candidates.

Table of Contents

Intellectual Property and License Agreements

Since MediciNova s inception in September 2000, MediciNova has entered into eight license agreements which cover its current product candidates. In general, MediciNova seeks to procure patent protection for its anticipated products, or obtain such protection from the relevant patents owned by its licensors. To date, MediciNova has obtained licensed rights under 15 issued U.S. patents and five pending U.S. patent applications. MediciNova also has obtained licensed rights to over 165 issued and pending foreign patents and applications corresponding to these U.S. patents and patent applications. In addition to these licensed rights, MediciNova holds five issued U.S. patents and two U.S. patent applications relating to MN-001 and its metabolite, MN-002. These patents and pending patent applications contain claims directed to compounds, compositions, methods of use and/or methods of manufacture. MediciNova is not aware of any third-party infringement of the patents owned or licensed by MediciNova and is not party to any material claims by third parties of infringement by MediciNova of such third parties intellectual property rights. The following is a description of MediciNova s existing license agreements and intellectual property rights for each of its product candidates:

MN-221

On February 25, 2004, MediciNova entered into an exclusive license agreement with Kissei Pharmaceutical for the development and commercialization of MN-221. Kissei Pharmaceutical is a fully integrated Japanese pharmaceutical company and is listed on the First Section of the Tokyo Stock Exchange. MediciNova obtained an exclusive, worldwide (excluding Japan), sublicensable license to various patent rights and know-how related to MN-221 and other compounds disclosed or included in, or covered by, these patent rights, for all indications, including preterm labor. This license includes an exclusive license under one U.S. patent and one U.S. patent application and certain corresponding patents and patent applications in foreign countries and is sublicensable upon receipt of the written consent of Kissei Pharmaceutical. The U.S. patent for MN-221 has composition of matter and method of use claims.

The U.S. composition of matter patent underlying the license issued on October 17, 2000 and is set to expire no earlier than February 18, 2017. Corresponding composition of matter patents in various other countries are set to expire no earlier than February 18, 2017. Under the terms of the agreement, MediciNova granted to Kissei Pharmaceutical a royalty-free, non-exclusive right and license to use MediciNova s know-how and patents relating to MN-221 to develop products incorporating the MN-221 compound outside of MediciNova s territory. Kissei Pharmaceutical also has the right to co-promote licensed products in MediciNova s territory on terms to be agreed upon by the parties and the exclusive right to manufacture and supply MediciNova with the API that MediciNova requires for clinical development of MN-221 and commercial sale of any approved product.

The license agreement may be terminated by either party following an uncured breach of any material provision in the agreement by the other party, and MediciNova may terminate the agreement for scientific or commercial reasons upon 100 days prior written notice to Kissei Pharmaceutical during the development phase and 180 days prior written notice to Kissei Pharmaceutical during the commercialization phase.

The term of the agreement is determined on a country-by-country basis and extends until the expiration of the last Kissei Pharmaceutical patent (or equivalent) under license to expire or in the event that a valid claim does not exist or, if a valid claim expired more than ten years from the date of first commercial sale, ten years from the date of first commercial sale. In either case, the term of the agreement would not extend for any particular country past the date on which generic competition exists in such country.

Under the license agreement, MediciNova has paid Kissei Pharmaceutical $1.0 million to date, and MediciNova is obligated to make payments of up to $17.0 million based on the achievement of certain clinical and regulatory milestones. MediciNova is also obligated to pay a royalty on net sales of the licensed products.

Table of Contents

MN-166

On October 22, 2004, MediciNova entered into an exclusive license agreement with Kyorin Pharmaceutical for the development and commercialization of MN-166. Kyorin Pharmaceutical is a fully integrated Japanese pharmaceutical company and is listed on the First Section of the Tokyo Stock Exchange. MediciNova obtained an exclusive, worldwide (excluding Japan, China, South Korea and Taiwan), sublicensable license to the patent rights and know-how related to MN-166 for the treatment of MS, except for ophthalmic solution formulations. MN-166 is not covered by a composition of matter patent. The U.S. method of use patent for MN-166 underlying the license is set to expire on August 10, 2018. Corresponding method of use patents in several other countries are set to expire no earlier than August 10, 2018. MediciNova also has rights under one pending U.S. application directed to a method of treating MS using a combination of MN-166 and Interferon-ß. Under the terms of the agreement, MediciNova granted to Kyorin Pharmaceutical an exclusive, royalty-free, sublicensable license to use the preclinical, clinical and regulatory databases to develop opthmalmic products incorporating the MN-166 compound anywhere in the world and non-opthalmic products incorporating the MN-166 compound outside of MediciNova s territory.

The license agreement may be terminated by either party following an uncured breach of any material provision in the agreement by the other party. MediciNova may terminate the agreement for any reason with 90 days written notice to Kyorin Pharmaceutical or, in the event that a third party claims that the licensed patent rights or know-how infringe upon such third party s intellectual property rights, with 30 days written notice.

The term of this agreement is determined on a country-by-country basis and extends until the later of the expiration of the obligation to make payments under the agreement or the last date on which the manufacture, use or sale of the product would infringe a valid patent claim held by Kyorin Pharmaceutical but for the license granted by the agreement or the last date of the applicable market exclusivity period. In the absence of a valid patent claim and generic competition in a particular country, the agreement will expire on the earlier of five years from the date of the first commercial sale of the product by MediciNova or the end of the second consecutive calendar quarter in which generic competition exists in such country.

Under the license agreement, MediciNova has paid Kyorin Pharmaceutical $700,000 to date, and MediciNova is obligated to make payments of up to $5.0 million based on the achievement of certain clinical and regulatory milestones. MediciNova is also obligated to pay a royalty on net sales of the licensed products.

MediciNova has also filed a patent application directed to the use of MN-166 for the treatment of progressive neurodegenerative diseases in the United States and intend to pursue counterparts of this patent application in certain foreign jurisdictions.

MN-001

On March 14, 2002, MediciNova entered into an exclusive license agreement with Kyorin Pharmaceutical for the development and commercialization of MN-001. MediciNova obtained an exclusive, worldwide (excluding Japan, China, South Korea and Taiwan) sublicenseable license to the patent rights and know-how related to MN-001 and its active metabolite, MN-002, disclosed and included in, or covered by, these patents, in all indications, except for ophthalmic solution formulations. This license includes an exclusive, sublicensable license under one U.S. patent and certain corresponding patents and patent applications in foreign countries. The U.S. composition of matter patent for MN-001 underlying the license expired on February 23, 2009, and the U.S. composition of matter patent for MN-002 underlying the license is set to expire on December 30, 2011. Corresponding composition of matter patents in various other countries are set to expire no earlier than between March 1, 2009 and January 15, 2015. Certain annuities were not paid in a timely manner with respect to certain foreign patents licensed under MN-002, resulting in the lapse of patents in certain countries. In such jurisdictions, MediciNova intends to rely upon the applicable period of post-approval exclusivity, in addition to any patents that may issue from its own patent applications. Under the terms of the agreement, MediciNova granted to

Table of Contents

Kyorin Pharmaceutical an exclusive, royalty-free, sublicenseable license to use the preclinical, clinical and regulatory databases to develop opthmalmic products incorporating the MN-001 compound anywhere in the world and non-opthalmic products incorporating the MN-001 compound outside of MediciNova s territory.

The license agreement may be terminated by either party following an uncured breach of any material provision in the agreement by the other party, and MediciNova may terminate the agreement for any reason with 90 days written notice to Kyorin Pharmaceutical or, in the event that a third party claims that the licensed patent rights or know-how infringe upon such third party s intellectual property rights, with 30 days written notice.

The term of this agreement is determined on a country-by-country basis and extends until the later of the expiration of the obligation to make payments under the agreement or the last date on which the manufacture, use or sale of the product would infringe a valid patent claim held by Kyorin Pharmaceutical but for the license granted by the agreement or the last date of the applicable market exclusivity period. In the absence of a valid patent claim and generic competition in a particular country, the agreement will expire on the earlier of five years from the date of the first commercial sale of the product by MediciNova or the end of the second consecutive calendar quarter in which generic competition exists in such country.

Under the license agreement, MediciNova has paid Kyorin Pharmaceutical $4.0 million to date, and MediciNova is obligated to make payments of up to $5.0 million based on the achievement of certain clinical and regulatory milestones. MediciNova is also obligated to pay a royalty on net sales of the licensed products.

MediciNova filed, and the U.S. Patent and Trademark Office issued, five U.S. patents covering certain compositions, uses and manufacturing processes associated with MN-001, four of which are set to expire on June 24, 2023 and one of which is set to expire on April 27, 2025. Patent applications corresponding to these U.S. patents were filed in certain foreign countries. MediciNova also filed one U.S. continuation application and one U.S. divisional application from these patents.

MN-029

On June 19, 2002, MediciNova entered into an exclusive license agreement with Angiogene Pharmaceuticals for the development and commercialization of the ANG-600 series of compounds. Angiogene Pharmaceuticals is a privately held, British drug discovery company. MediciNova obtained an exclusive, worldwide, sublicenseable license to the patent rights and know-how related to the ANG-600 series of compounds disclosed in and included or covered by these patents for all indications. MN-029 is one of the ANG-600 series compounds covered by this license. This license includes an exclusive, sublicensable license under three U.S. patents, two U.S. patent applications and certain corresponding patents and patent applications in foreign countries. The U.S. composition of matter patent for MN-029, which issued on November 11, 2003, is set to expire on January 14, 2020. Patent applications corresponding to this U.S. patent were filed in certain foreign countries. The U.S. patent covering methods of treating solid cancer tumors by administering MN-029, which issued on July 25, 2006, is set to expire on January 14, 2020.

The license agreement may be terminated by either party following an uncured breach of any material provision in the agreement by the other party, and MediciNova may terminate the agreement at any time by giving 30 days advance written notice to Angiogene Pharmaceuticals.

The term of this agreement is determined on a country-by-country basis and extends until the earlier of the expiration of the last Angiogene Pharmaceuticals patent (or equivalent) under license which has a valid claim to expire or 15 years from the date of first commercial sale.

Under the license agreement, MediciNova has paid Angiogene Pharmaceuticals $1.4 million to date and are obligated to make payments of up to $16.5 million based on the achievement of certain clinical and regulatory milestones. MediciNova is also obligated to pay a royalty on net sales of the licensed products.

Table of Contents

MN-305

On April 27, 2004, MediciNova entered into an exclusive license agreement with Mitsubishi Pharma Corporation, the predecessor to Mitsubishi Tanabe Pharma Corporation, for the development and commercialization of MN-305. Mitsubishi Tanabe Pharma Corporation is a fully integrated Japanese pharmaceutical company and is listed on the First Section of the Tokyo Stock Exchange. MediciNova obtained an exclusive, worldwide (excluding Japan, Singapore, Brunei, Thailand, Malaysia, Indonesia, the Philippines, Vietnam, Bangladesh, Pakistan, South Korea, China and Taiwan), sublicenseable license to the patent rights and know-how related to MN-305 and its active metabolite disclosed and included or covered by these patents for all indications except for ophthalmic solution formulations. The license is sublicensable upon receipt of the written consent of Mitsubishi Tanabe Pharma Corporation. This license includes an exclusive, sublicensable license under five U.S. patents and a U.S. application and certain corresponding patents and patent applications in foreign countries. The U.S. composition of matter patent for MN-305, which issued on December 1, 1992, is set to expire on March 14, 2011. Patent applications corresponding to this U.S. patent were filed in certain foreign countries, and these foreign counterparts are set to expire no earlier than between March 12, 2011 and March 14, 2011. The U.S. patent covering the use of MN-305 to treat anxiety, which issued on August 10, 1993, is set to expire on March 14, 2011.

Under the terms of the agreement, MediciNova granted to Mitsubishi Tanabe Pharma Corporation a license to use MediciNova s know-how and patents relating to MN-305 to develop products incorporating the MN-305 compound outside of MediciNova s territory. Mitsubishi Tanabe Pharma Corporation also has the right to co-promote licensed products in MediciNova s territory on terms to be agreed upon by the parties.

The license agreement may be terminated by either party following an uncured breach of any material provision in the agreement by the other party. MediciNova may terminate the agreement if, in its reasonable opinion, the safety, patient tolerability, efficacy, profile or commercial viability of MN-305 does not justify continued development with 90 days written notice to Mitsubishi Tanabe Pharma Corporation or, in the event that a third party claims that the licensed intellectual property related to MN-305 infringes such third party s intellectual property rights, with 30 days written notice.

The term of this agreement is determined on a country-by-country basis and extends until the later of ten years from the date of first commercial sale in a specific country or the expiration of a valid patent claim in such country. In the event that MediciNova enters into a sublicense with a third party, the term of the agreement will extend for as long as MediciNova receives royalty payments from such third party.

Under the license agreement, MediciNova has paid Mitsubishi Tanabe Pharma Corporation $1.0 million to date, and MediciNova is obligated to make payments of up to $18.8 million based on the achievement of certain clinical, regulatory and sales milestones. MediciNova is also obligated to pay a royalty on net sales of the licensed products.

MN-246

On December 8, 2004, MediciNova entered into an exclusive license agreement with Mitsubishi Pharma Corporation, the predecessor to Mitsubishi Tanabe Pharma Corporation, for the development and commercialization of MN-246. MediciNova obtained an exclusive, worldwide (excluding Japan, Singapore, Brunei, Thailand, Malaysia, Indonesia, the Philippines, Vietnam, Bangladesh, Pakistan, South Korea, China and Taiwan), sublicenseable license to the intellectual property surrounding MN-246, its derivatives and any other compounds disclosed or claimed in the licensed Mitsubishi Tanabe Pharma Corporation patent assets. The license is sublicensable upon receipt of the written consent of Mitsubishi Tanabe Pharma Corporation and includes an exclusive license under one U.S. patent and certain corresponding patents and patent applications in foreign countries. The U.S. patent covering MN-246 and methods of making and using MN-246, which issued on May 30, 2000, is set to expire on October 24, 2016. Patent applications corresponding to this U.S. patent were

Table of Contents

filed in certain foreign countries, and these foreign counterparts are set to expire no earlier than October 24, 2016. In addition, MediciNova filed a U.S. patent application and corresponding patent applications in Thailand and Taiwan for a new method of use for MN-246.

The issued U.S. patent covers generic phenylethanolamines encompassed by a given chemical formula, including MN-246, processes for the production of such phenylethanolamines, a pharmaceutical composition of such phenylethanolamines and methods of use for such phenylethanolamines for the treatment of a variety of human or animal ailments, including accelerated or spasmodic gastrointestinal motility, dysuria, pollakisuria, urinary incontinence, obesity and diabetes. This U.S. patent is set to expire on October 24, 2016. Foreign counterparts have been filed or patented in other countries and are also set to expire no earlier than October 24, 2016. Under the terms of the agreement, MediciNova granted to Mitsubishi Tanabe Pharma Corporation a license to use MediciNova s know-how and patents relating to MN-246 to develop products incorporating the MN-246 compound outside of MediciNova s territory. Mitsubishi Tanabe Pharma Corporation also has the right to co-promote licensed products in MediciNova s territory on terms to be agreed upon by the parties.

The license agreement may be terminated by either party following an uncured breach of any material provision in the agreement by the other party. MediciNova may terminate the agreement if, in its reasonable opinion, the safety, patient tolerability, efficacy, profile or commercial viability of MN-246 does not justify continued development with 90 days written notice to Mitsubishi Tanabe Pharma Corporation or in the event that a third party claims that the licensed intellectual property related to MN-246 infringes such third party s intellectual property rights with 30 days written notice.

The term of this agreement is determined on a country-by-country basis and extends until the later of ten years from the date of first commercial sale in a specific country or the expiration of a valid patent claim in such country. In the event that MediciNova enters into a sublicense with a third party, the term of the agreement will extend for as long as it receives royalty payments from such third party.

Under the license agreement, MediciNova has paid Mitsubishi Tanabe Pharma Corporation $750,000 to date, and MediciNova is obligated to make payments of up to $14.5 million based on the achievement of certain clinical, regulatory and sales milestones. MediciNova is also obligated to pay a royalty on net sales of the licensed products.

MN-447

On November 1, 2006, MediciNova entered into an exclusive license agreement with Meiji Seika Kaisha for the development and commercialization of MN-447. Meiji Seika Kaisha is a fully integrated Japanese pharmaceutical company and is listed on the First Section of the Tokyo Stock Exchange. MediciNova obtained an exclusive, worldwide (excluding Japan, Bangladesh, Brunei, Cambodia, People s Republic of China, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, South Korea, Taiwan, Thailand and Vietnam), sublicensable license from Meiji Seika Kaisha for MN-447 (and any other compound claimed or covered by U.S. patent 6,420,558) for any human use. This license includes an exclusive sublicensable license under one U.S. patent and certain corresponding patents and patent applications in foreign countries. The U.S. patent covering MN-447 and methods of treating an integrin avß3-mediated disease, platelet thrombosis, aggregation and related disorders, which issued on July 16, 2002, is set to expire on April 9, 2019. Patent applications corresponding to this U.S. patent were filed in certain foreign countries. Under the terms of the license, MediciNova granted a license to Meiji Seika Kaisha to use MediciNova s know-how and patents relating to MN-447 to develop products incorporating the MN-447 compound outside of MediciNova s territory.

This license agreement may be terminated by either party following an uncured breach of any material provision of the agreement by the other party upon 90 days written notice or the inability or delay in performing under the agreement due to a force majeure event which lasts longer than 12 months. MediciNova also has the right to terminate the agreement in the event of third party intellectual property claims which are not timely

Table of Contents

remedied by MediciNova and Meiji Seika Kaisha or if, in MediciNova s reasonable opinion, the safety, patient tolerability, efficacy, profile or commercial viability of MN-447 does not justify continued development. Meiji Seika Kaisha also has the right to terminate the agreement in the event that MediciNova ceases development of MN-447 for a period of one year or longer.

The term of the agreement is determined on a country-by-country basis and extends until the expiration of the last Meiji Seika Kaisha patent (or equivalent) under license to expire or in the event that a valid claim does not exist or, if a valid claim expired more than 15 years from the date of first commercial sale, 15 years from the date of first commercial sale.

Under the license agreement, MediciNova has paid Meiji Seika Kaisha $400,000 to date, and MediciNova is obligated to make payments of up to $8.7 million based on the achievement of certain clinical and regulatory milestones. MediciNova is also obligated to pay a royalty on net sales of the licensed products.

MN-462

On November 1, 2006, MediciNova entered into an exclusive license agreement with Meiji Seika Kaisha for the development and commercialization of MN-462. MediciNova obtained an exclusive, worldwide (excluding Japan, Bangladesh, Brunei, Cambodia, People s Republic of China, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, South Korea, Taiwan, Thailand and Vietnam), sublicenseable license from Meiji Seika Kaisha for MN-462 (and any other compound claimed or covered by U.S. patent 6,576,627) for any human use. This license includes an exclusive sublicensable license under two U.S. patents and certain corresponding patents and patent applications in foreign countries. The U.S. patent covering MN-462 medicament compositions containing MN-462, and methods of therapeutic treatment or preventive treatment of thrombotic disease, which issued on June 10, 2003, is set to expire on September 13, 2020. Patent applications corresponding to this U.S. patent were filed in certain foreign countries. Under the terms of the license, MediciNova granted a license to Meiji Seika Kaisha to use MediciNova s know-how and patents relating to MN-462 to develop products incorporating the MN-462 compound outside of MediciNova s territory.

This license agreement may be terminated by either party following an uncured breach of any material provision of the agreement by the other party upon 90 days written notice or the inability or delay in performing under the agreement due to a force majeure event which lasts longer than 12 months. MediciNova also has the right to terminate the agreement in the event of third party intellectual property claims which are not timely remedied by MediciNova and Meiji Seika Kaisha or if, in MediciNova s reasonable opinion, the safety, patient tolerability, efficacy, profile or commercial viability of MN-462 does not justify continued development. Meiji Seika Kaisha also has the right to terminate the agreement in the event that MediciNova ceases development of MN-462 for a period of one year or longer.

The term of the agreement is determined on a country-by-country basis and extends until the expiration of the last Meiji Seika Kaisha patent (or equivalent) under license to expire or in the event that a valid claim does not exist or, if a valid claim expired more than 15 years from the date of first commercial sale, 15 years from the date of first commercial sale.

Under this license agreement, MediciNova has paid Meiji Seika Kaisha $400,000 to date, and MediciNova is obligated to make payments of up to $8.7 million based on the achievement of certain clinical and regulatory milestones. MediciNova is also obligated to pay a royalty on net sales of the licensed products.

General

MediciNova s proposed commercial activities may conflict with patents which have been or may be granted to competitors, universities and/or others. Third parties could bring legal action against MediciNova, its licensors or its sublicensees claiming patent infringement and could seek damages or enjoin manufacturing and marketing

Table of Contents

of the affected product or its use or the use of a process for the manufacturing of such products. If any such actions were to be successful, in addition to any potential liability for indemnification, damages and attorneys fees in certain cases, MediciNova could be required to obtain a license, which may not be available on commercially reasonable terms or at all, in order to continue to manufacture, use or market the affected product. MediciNova also relies upon unpatented proprietary technology because, in some cases, its interests would be better served by reliance on trade secrets or confidentiality agreements than by patents. However, others may independently develop substantially equivalent proprietary information and techniques or gain access to or disclose such proprietary technology. MediciNova may not be able to meaningfully protect its rights in such unpatented proprietary technology. MediciNova may also conduct research on other pharmaceutical compounds or technologies, the rights to which may be held by, or be subject to patent rights of, third parties. Accordingly, if products based on such research are commercialized, such commercial activities may infringe patents or other rights, which may require MediciNova to obtain a license to such patents or other rights.

There can be no assurance that patent applications filed by MediciNova or others, in which it has an interest as assignee, licensee or prospective licensee, will result in patents being issued or that, if issued, any of such patents will afford protection against competitors with similar technology or products or could not be circumvented or challenged. For example, MediciNova has a U.S. patent covering the method of using MN-166 to treat MS, but it does not have any unqualified composition of matter patent claims for MN-166. As a result, unrelated third parties may develop products with the same API as MN-166 so long as such parties do not infringe MediciNova s method of use patent, other patents MediciNova has exclusive rights to through its licensor or any patents it may obtain for MN-166.

In addition, if MediciNova develops certain products that are not covered by any patents, it will be dependent on obtaining market exclusivity under the data exclusivity provisions of the Drug Price Competition and Patent Term Restoration Act of 1984, as amended, or the Hatch-Waxman Act, for such products. If MediciNova is unable to obtain strong proprietary rights protection for its products after obtaining regulatory approval, competitors may be able to market competing generic products by taking advantage of an abbreviated procedure for obtaining regulatory clearance, including the ability to demonstrate bioequivalency to MediciNova s product(s) without being required to conduct lengthy clinical trials. Certain of MediciNova s license agreements provide for reduced royalties or, in some cases, foregone royalties in the event of generic competition.

Competition

The development and commercialization of new drugs is extremely competitive and characterized by extensive research efforts and rapid technological progress. Competition in MediciNova s industry occurs on a variety of fronts, including developing and bringing new products to market before others, developing new products to provide the same benefits as existing products at lower cost and developing new products to provide benefits superior to those of existing products. MediciNova faces competition from pharmaceutical and biotechnology companies, as well as numerous academic and research institutions and governmental agencies, in the United States and abroad. Some of these competitors have products or are pursuing the development of drugs that target the same diseases and conditions that are the focus of MediciNova s product development programs. Many of MediciNova s competitors have products that have been approved or are in advanced development and may succeed in developing drugs that are more effective, safer and more affordable or more easily administered than MediciNova s or that achieve patent protection or commercialization sooner than MediciNova s products. MediciNova s competitors may also develop alternative therapies that could further limit the market for any products that MediciNova is able to obtain approval for, if at all.

In many of MediciNova s target disease areas, potential competitors are working to develop new compounds with different mechanisms of action and attractive efficacy and safety profiles. Many of MediciNova s competitors have substantially greater financial, research and development resources (including personnel and technology), clinical trial experience, manufacturing, sales and marketing capabilities and

production facilities than MediciNova does. Smaller companies also may prove to be significant competitors, particularly through proprietary research discoveries and collaboration arrangements with large pharmaceutical and established biotechnology companies.

MN-221 for Acute Exacerbations of Asthma

MediciNova s MN-221 product candidate is being developed for the treatment of acute exacerbations of asthma in the emergency room setting. The current standard of care for acute exacerbations of asthma is inhaled albuterol (a ß2-adrenergic receptor agonist), inhaled ipratropium (an anticholinergic) and oral or injected corticosteroids. In addition, subcutaneously administered terbutaline (a ß2-adrenergic receptor agonist) is sometimes used to treat this condition, particularly in pediatric patients. Certain oral anti-inflammatory asthma drugs, including Cornerstone Therapeutics, Inc. s Zyflo® (zileuton), have been investigated in an intravenous form for the treatment of acute exacerbations of asthma.

MN-221 for Chronic Obstructive Pulmonary Disease Exacerbations

MediciNova s MN-221 product candidate is also being developed for the treatment of COPD exacerbations. The standard of care for COPD exacerbations is similar to that of acute exacerbations of asthma in that inhaled bronchodilators and anticholinergics are administered; however, antibiotics are also administered and parenteral terbutaline is excluded because of the exclusively adult patient population. A greater percentage of patients diagnosed with COPD exacerbations are hospitalized than patients diagnosed with asthma exacerbations, and such patients continue the same treatment paradigm as in the emergency department.

MN-166 for Multiple Sclerosis

MediciNova s MN-166 product candidate has been in development for the treatment of MS. Current treatments for MS include the beta interferons, such as Biogen Idec Inc. s Avonex® (beta interferon), Teva Pharmaceutical Industries Ltd. s and Sanofi-Aventis Copaxone® (glatiramer acetate), Merck Serono s and Pfizer Inc. s Rebif® (beta interferon), Bayer Schering Pharma AG s Betaseron/Betaferon® and Biogen Idec Inc. s Tysabri® (natalizumab), all of which are administered by injection. Of the many new agents in development for MS, only a few, such as Sanofi-Aventis teriflunomide, Novartis AG s fingolimod/FTY720, Teva Pharmaceutical Industries Ltd. s laquinimod and Biogen Idec Inc. s BG-12, are intended for oral administration like MN-166.

MN-001 for Bronchial Asthma

MediciNova s MN-001 product candidate has been in development for the treatment of bronchial asthma. There are two currently marketed leukotriene inhibitors, Merck & Co. Inc. s Singulair® (montelukast) and AstraZeneca PLC s Accolate® (zafirlukast). There are also several products in clinical development to treat bronchial asthma, including Mitsubishi Tanabe Pharma Corporation s MCC 847 (masilukast), which is another leukotriene inhibitor currently in Phase III clinical testing in Japan.

MN-001 for Interstitial Cystitis

MediciNova s MN-001 product candidate has been in development for the treatment of IC. There are two currently marketed products, Teva Pharmaceuticals Industries Ltd. s Elmiron® and Bioniche Pharma Group Limited s RIMSO-50®. There is also a product in clinical development to treat IC, Taiho Pharmaceutical Co., Ltd. s IPD-1151 (suplatast tosilate), which is currently in Phase III clinical testing in Japan. In addition, Urigen Pharmaceuticals, Inc. s URG-101 for the treatment of painful bladder syndrome/IC is in Phase II clinical testing.

MN-029 for Solid Tumors

MediciNova s MN-029 product candidate has been in development for the treatment of solid tumors. There are a number of compounds in clinical development with a mechanism similar to MN-029, including Oxigene Inc. s ZBRESTAT (fosbretabulin) and Sanofi-Aventis AVE 8062, which are in Phase III clinical testing.

Table of Contents

MN-305 for General Anxiety Disorder

MediciNova s MN-305 product candidate has been in development for the treatment of General Anxiety Disorder. There are a number of approved products to treat Generalized Anxiety Disorder, including Eli Lilly and Company s Cymbalta® (duloxetine).

MN-221 for Preterm Labor

MediciNova s MN-221 product candidate has been in development for the treatment of preterm labor. There are a number of oxytocin antagonists undergoing clinical evaluation, including GlaxoSmithKline plc s GSK221149, which is currently in Phase II clinical testing.

MN-246 for Urinary Incontinence

MediciNova s MN-246 product candidate has been in development for the treatment of urinary incontinence. There are a number of compounds in various stages of clinical development to treat urinary incontinence. Pfizer Inc. s Detrol® (tolterodine tartrate) is the market leader, and other marketed drugs include Astellas Pharma Inc. s VESIcare® (solifenacin succinate) and Novartis AG s Enablex® (darifenacin) were introduced in the first quarter of 2005, both of which are anti-cholinergic agents. Ono Pharmaceutical Co., Ltd. and Kyorin Pharmaceutical have received approval for Staybla® (muscarinic antagonist). Schwarz Pharma AG s Toviaz® (fesoterodine fumarate), another anti-cholinergic, has also recently been approved. Kissei Pharmaceutical, Astellas Pharma Inc. and GlaxoSmithKline plc also have ß3-adrenergic receptor agonists in early clinical development for the treatment of this indication.

MN-447 and MN-462 for Thrombotic Disorders

MediciNova s MN-447 and MN-462 product candidates have been in development for the treatment of thrombotic disorders. Both product candidates are currently in preclinical development; therefore, MediciNova has not identified the particular thrombotic disorders that it intends to target upon reaching the clinical development stage for these product candidates. Consequently, MediciNova cannot accurately evaluate the competition it will face. Currently, the market leaders for anti-thrombotic drugs are Bristol-Myers Squibb Company s and Sanofi-Aventis Plavix® (clopidogrel) and Sanofi-Aventis Lovenox® (enoxaparin).

Government Regulation

Government authorities in the United States and other countries extensively regulate pharmaceutical products such as those MediciNova is developing. In the United States, the FDA, under the Federal Food, Drug and Cosmetic Act, as amended, and other federal statutes and regulations, subjects pharmaceutical products to extensive and rigorous review. Any failure to comply with applicable requirements, both before and after approval, may subject MediciNova, its third-party manufacturers, contractors, suppliers and partners to administrative and judicial sanctions, such as a delay in approving or refusal to approve pending applications, fines, warning letters, product recalls, product seizures, total or partial suspension of manufacturing or marketing, injunctions and/or criminal prosecution.

U.S. Regulatory Approval

Overview. In the United States, drugs and drug testing are regulated by the FDA under the Federal Food, Drug and Cosmetic Act, as well as state and local government authorities. Before MediciNova s products may be marketed in the United States, they must be approved by the FDA. To obtain approval of a new product from the FDA, MediciNova must, among other requirements, submit data supporting safety and efficacy, as well as detailed information on the manufacture and composition of the product and proposed labeling. MediciNova s product candidates are in the early stages of testing and none has been approved. The steps required before a drug can be approved generally involve the following:

completion of preclinical laboratory and animal tests;

Table of Contents

submission of an IND, which must become effective before human clinical trials may begin in the United States;

completion of adequate and well-controlled human clinical trials to establish the safety and efficacy of the product candidate for each indication for which approval is sought;

submission to the FDA of an NDA;

development of manufacturing processes which conform to FDA-mandated cGMPs and satisfactory completion of MediciNova s FDA inspection to assess compliance; and

FDA review and approval of an NDA, which process may involve input from advisory panels to the FDA and may include post-approval commitments.

The testing, collection of data, preparation of necessary applications and approval process requires substantial time, effort and financial resources. The FDA may not act quickly or favorably in reviewing MediciNova s applications, and MediciNova may encounter significant difficulties and costs in its efforts to obtain FDA approvals that could delay or preclude it from marketing its products.

Preclinical Tests. Preclinical tests include laboratory evaluation of the product candidate, its chemistry, toxicity, formulation and stability, as well as animal studies to assess the potential safety and efficacy of the product candidate. The results of the preclinical tests, together with manufacturing information, analytical data and other available information about the product candidate, are submitted to the FDA as part of an IND. Preclinical tests and studies can take several years to complete and, despite completion of those tests and studies, the FDA may not permit clinical testing to begin.

IND Process. An IND must be effective to administer an investigational drug to humans. The IND will automatically become effective 30 days after its receipt by the FDA unless the FDA, before that time, raises concerns or questions about the information provided and/or the conduct of the studies as outlined in the IND. At any time thereafter, the FDA may raise concerns or questions about the conduct of the trials as outlined in the IND and even impose a clinical hold if the FDA deems it appropriate. In such case, the IND sponsor and the FDA must resolve any outstanding concerns before clinical trials can begin or continue. The IND application process may become extremely costly and substantially delay development of MediciNova s products. Moreover, positive results in preclinical tests or prior human studies do not necessarily predict positive results in subsequent clinical trials.

Clinical Trials. Human clinical trials are typically conducted in three sequential phases that may overlap:

Phase I: The drug is initially introduced into a small number of human subjects or patients and tested for safety, dosage tolerance, absorption, distribution, excretion and metabolism.

Phase II: The drug is introduced into a limited patient population to assess the efficacy of the drug in specific, targeted indications, assess dosage tolerance and optimal dosage, and identify possible adverse effects and safety risks.

Phase III: The drug is introduced into an expanded patient population at geographically dispersed clinical trial sites to further evaluate clinical efficacy and safety.

Prior to initiation of each clinical trial, an independent IRB for each medical site proposing to conduct the clinical trials must review and approve the study protocol and study subjects must provide informed consent for participation in the study.

MediciNova cannot be certain that it will successfully complete Phase I, Phase II or Phase III testing of its drug candidates within any specific time period, if at all. Clinical trials must be conducted in accordance with the FDA s GCP requirements. The FDA may order the partial, temporary or permanent discontinuation of a clinical

145

Table of Contents

trial at any time or impose other sanctions if it believes that the clinical trial is not being conducted in accordance with FDA requirements or presents an unacceptable risk to the clinical trial patients. The IRB generally must approve the clinical trial design and patient informed consent at each clinical site and may also require the clinical trial at that site to be halted, either temporarily or permanently, for failure to comply with the IRB s requirements, or may impose other conditions.

NDA Process. If clinical trials are successful, the next step in the drug regulatory approval process is the preparation and submission to the FDA of an NDA. The NDA is the vehicle through which drug sponsors formally propose that the FDA approve a new pharmaceutical product for marketing and sale in the United States. The NDA must contain a description of the manufacturing process and quality control methods, as well as results of preclinical tests, toxicology studies, clinical trials and proposed labeling, among other things. A substantial user fee must also be paid with the NDA, unless an exemption applies.

Upon submission of the NDA, the FDA will make a threshold determination as to whether the application is sufficiently complete to permit review and, if not, will issue a refuse to file letter. If the submission is accepted for filing, the FDA begins an in-depth review of the NDA and will attempt to review and take action on the application in accordance with performance goals established in connection with the user fee laws. If the FDA s evaluations of the NDA and the clinical and manufacturing procedures and facilities are favorable, the FDA may issue either an approval letter or an approvable letter, which contains the conditions that must be met in order to secure final approval of the NDA. If and when those conditions have been met to the FDA s satisfaction, the FDA will issue an approval letter, authorizing commercial marketing of the drug for certain indications. The FDA may also grant approval with requirements to complete post-marketing studies, referred to as Phase IV clinical trials, or restrictive product labeling, or may impose other restrictions on marketing or distribution, such as the adoption of a special risk management plan. The FDA may deny or delay approval of applications that do not meet applicable regulatory criteria or if the FDA determines that the clinical data do not adequately establish the safety and efficacy of the drug.

The Hatch-Waxman Act. Under the Hatch-Waxman Act, certain newly approved drugs and indications benefit from a statutory period of non-patent marketing exclusivity. The Hatch-Waxman Act provides five-year marketing exclusivity to the first applicant to gain approval of an NDA for a new chemical entity, meaning that the FDA has not previously approved any other new drug containing the same active moiety. The Hatch-Waxman Act also provides three years of marketing exclusivity for the approval of new and supplemental NDAs for, among other things, new indications, dosages or strengths of an existing drug, if new clinical investigations that were conducted or sponsored by the applicant are essential to the approval of the application. Pediatric exclusivity of six months may also be available if agreement is reached with the FDA and qualifying studies of product candidates in pediatric populations are conducted.

Manufacturing and Other Regulatory Requirements. Both before and after approval, MediciNova and its third-party manufacturers must comply with a number of regulatory requirements. For example, if MediciNova seeks to make certain changes to an approved product, such as promoting or labeling a product for a new indication, manufacturing changes or additional labeling claims, it will need FDA review and approval. Advertising and other promotional materials must comply with FDA requirements and established requirements applicable to drug samples. In addition, MediciNova may not label or promote the product for an indication that has not been approved by the FDA. Securing FDA approval for new indications or product enhancements and, in some cases, for new labeling claims, is generally a time-consuming and expensive process that may require MediciNova to conduct clinical trials under the FDA s IND regulations. Even if such studies are conducted, the FDA may not approve any change in a timely fashion, or at all. In addition, adverse experiences associated with use of the products must be reported to the FDA, and FDA rules govern how MediciNova can label, advertise or otherwise commercialize its products.

The NDA holders and manufacturers of approved products will be subject to continual review and periodic inspections by the FDA and other authorities, where applicable, and must comply with ongoing requirements,

Table of Contents

including the FDA s cGMP requirements. Manufacturers must provide certain safety and efficacy information and make certain other required reports. To comply with cGMP requirements, manufacturers must continue to spend time, money and effort to meet requirements relating to personnel, facilities, equipment, production and process, labeling and packaging, quality control, record-keeping and other requirements. The FDA periodically inspects drug manufacturing facilities to evaluate compliance with cGMP requirements. Product approvals may be withdrawn if compliance with regulatory requirements is not maintained or if problems concerning safety or efficacy of the product occur following approval. Because MediciNova intends to contract with third parties for manufacturing of its products, its ability to control third-party compliance with FDA requirements will be limited to contractual remedies and rights of inspection.

In addition to FDA restrictions on marketing of pharmaceutical products, several other state and federal laws have been applied to restrict certain sales and marketing practices in the pharmaceutical industry in recent years. These laws include licensing requirements, compliance program requirements, annual certificates and disclosures, anti-kickback statutes and false claims statutes. The Anti-Kickback Statute prohibits, knowingly and willfully offering, paying, soliciting or receiving remuneration to induce or in return for purchasing, leasing, ordering or arranging for the purchase, lease or order of any health care item or service reimbursable under Medicare, Medicaid or other federally financed health care programs. This statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on the one hand and prescribers, purchasers and formulary managers on the other. Violations of the Anti-Kickback Statute are punishable by imprisonment, criminal fines, civil monetary penalties and exclusion from participation in federal health care programs. Although there are a number of statutory exemptions and regulatory safe harbors protecting certain common activities from prosecution or other regulatory sanctions, the exemptions and safe harbors are drawn narrowly, and practices that involve remuneration intended to induce prescribing, purchases or recommendations may be subject to scrutiny if they do not qualify for an exemption or safe harbor.

Federal false claims laws prohibit any person from knowingly presenting, or causing to be presented, a false claim for payment to the federal government, or knowingly making, or causing to be made, a false statement to have a false claim paid. Recently, several pharmaceutical and other health care companies have been prosecuted under these laws for allegedly inflating drug prices they report to pricing services, which in turn were used by the government to set Medicare and Medicaid reimbursement rates, and for allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. In addition, certain marketing practices, including off-label promotion, may also violate false claims laws. The majority of states also have statutes or regulations similar to the Anti-Kickback Statue and false claims laws, which apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor.

MediciNova is also subject to various laws and regulations regarding laboratory practices, the experimental use of animals and the use and disposal of hazardous or potentially hazardous substances in connection with its research.

Foreign Regulatory Approval

MediciNova will have to complete approval processes, similar or related to the U.S. approval processes, in virtually every foreign market for its products in order to conduct clinical or preclinical research and to commercialize its drug candidates in those countries. The approval procedures and the time required for approvals vary from country to country and may involve additional testing. In addition, regulatory approval of prices is required in most countries other than the United States. MediciNova faces the risk that the resulting prices would be insufficient to generate an acceptable return to MediciNova or its collaborators.

Similar to the U.S. regulatory framework, the various phases of preclinical and clinical research are subject to significant regulatory controls within the European Union. Variations among national regimes exist. However,

Table of Contents

most jurisdictions require regulatory and ethics committees approval of interventional clinical trials. Most European regulators also require the submission of adverse event reports during a study and a copy of the final study report.

Under European Union regulatory systems, marketing authorizations may be submitted either under a centralized or decentralized procedure. The centralized procedure is currently mandatory for products developed by means of a biotechnological process and optional for new active substances and other innovative medicinal products with novel characteristics. It provides for the grant of a single marketing authorization that is valid for all European Union member states. The decentralized procedure provides for mutual recognition of national approval decisions. Under this procedure, the holder of a national marketing authorization may submit applications in other European Union member states, requesting them to mutually recognize the marketing authorization already granted. Within 90 days of receiving the applications and assessment report, each member state must decide whether to recognize the existing approval.

Where possible, MediciNova will strive to choose the European regulatory filing route that will most rapidly enable it to obtain the needed regulatory approvals. However, the chosen regulatory strategy may not secure regulatory approvals or approvals of the chosen product indications. In addition, these approvals, if obtained, may take longer than anticipated.

Employees

MediciNova has assembled an experienced and cohesive management and support team, with core competencies in general management, clinical development and regulatory affairs and corporate development. As of November 12, 2009, MediciNova had 22 full-time employees and two part-time employees. MediciNova believes that its relations with its employees are good, and it has no history of work stoppages.

Properties

MediciNova leases approximately 12,699 square feet of office space at its headquarters in San Diego, California under a lease that expires in August 2011. MediciNova has no laboratory, research or manufacturing facilities, and it currently does not plan to purchase or lease any such facilities, as such services are provided to MediciNova by third-party service providers. MediciNova believes that its current facilities are adequate for its needs for the immediate future and that, should it be needed, suitable additional space will be available to accommodate expansion of its operations on commercially reasonable terms. In addition to its headquarters, MediciNova also leases approximately 1,726 square feet of office space in Tokyo, Japan under a lease that expires in May 2011.

Legal Proceedings

On August 24, 2009, The Pennsylvania Avenue Funds, an Avigen stockholder, filed a complaint in Alameda County Superior Court alleging that Avigen s directors breached their fiduciary duties in connection with the proposed transaction with MediciNova. On October 15, 2009, The Pennsylvania Avenue Funds filed an amended complaint adding MediciNova as a defendant. In the amended complaint, The Pennsylvania Avenue funds alleged, among other things, that MediciNova aided and abetted the alleged breach of fiduciary duties by the Avigen directors. The Pennsylvania Avenue Funds purportedly brings the action on behalf of a stockholder class and may seek injunctive relief, compensatory and rescissory damages and attorney s fees. MediciNova and its directors intend to take all appropriate actions to defend the suit.

In addition, MediciNova may be a party to lawsuits in the normal course of business. Litigation and governmental investigations can be expensive and disruptive to normal business operations. Moreover, the results of legal proceedings are difficult to predict. Significant judgments or settlements in connection with legal proceedings may have a material adverse effect on MediciNova s business, financial condition and results of operations. MediciNova is not a party to any material legal proceedings.

Table of Contents

AVIGEN S BUSINESS

Overview

Avigen is a biopharmaceutical company that has focused on identifying and developing differentiated products to treat patients with serious disorders. Avigen s strategy was to conceive or acquire and develop opportunities that represent a positive return to Avigen stockholders. The company s current potential product is AV411, a glial attenuator, for neuropathic pain and opioid withdrawal and methamphetamine addiction.

Prior to October 2008, Avigen had been developing a product candidate, AV650, for the treatment of spasticity associated with MS. In that month, Avigen announced that top-line data from a Phase 2b clinical trial of AV650 (tolperisone HCl) did not achieve statistical significance on its primary endpoint or most secondary endpoints. There were no safety issues. Avigen believes that the trial was adequately powered and all statistical parameters were in line with expectations. Based on these results, Avigen terminated the AV650 program and initiated a restructuring to immediately reduce its expenses and preserve its remaining financial resources in order to evaluate other strategic opportunities.

The restructuring included a significant staff reduction and closure of portions of Avigen s leased facilities in November 2008.

In December 2008, Avigen completed a sale of its early-stage AV513 program for $7.2 million to Baxter Healthcare Corporation. Avigen also expanded its efforts to monetize its AV411 program for neuropathic pain and addiction.

In January 2009, Avigen initiated an orderly and competitive process to review merger and acquisition opportunities. Avigen believed that the strength of its financial position would allow it to enter into a favorable merger and acquisition transaction and lead to increased value for its stockholders. In reviewing potential transactions, Avigen s board of directors placed the most value on the following criteria: short time to commercialization and self-sustaining cash flow; product differentiation; lower commercial and regulatory risks; capital needs; strong intellectual property; and experienced management team. Avigen s board determined that if at any point during the review, it becomes evident to the directors that a favorable transaction was unlikely, Avigen would put greater emphasis on other strategic options, including monetizing the remaining company assets, selling the company, or a full or partial distribution of cash to stockholders.

During the quarter ended March 31, 2009, Avigen was engaged in a proxy fight initiated by its largest stockholder, which resulted in a Special Meeting of Stockholders. On March 27, 2009, Avigen stockholders rejected a proposal to remove the current members of its board of directors; however, Avigen s board believed it was no longer prudent to continue its competitive process to review merger and acquisition opportunities, abandoned ongoing strategic merger discussions, and announced its intention to develop a plan of dissolution that would maximize the liquidation value of Avigen. In connection with this action, the board determined that Avigen no longer needed to retain the services of a majority of its employees that were supporting the strategic review process, and Avigen reduced its headcount accordingly, including terminating three officers.

In August 2009, Avigen announced that it had agreed to be acquired by MediciNova.

Avigen, Inc. is a Delaware corporation that was incorporated on October 22, 1992 and is based in the San Francisco Bay Area.

Prior to 2006, Avigen focused on the development of DNA-based drug delivery technologies and early stage research in the field of gene therapy. Avigen received FDA approval for three separate Investigational New Drug filings, or INDs, and initiated corresponding phase I or phase I/II clinical trials. In December 2005, Avigen entered into an agreement with Genzyme Corporation, or Genzyme, whereby it assigned to Genzyme its rights to some of its gene therapy-related intellectual property, its gene therapy clinical trial programs for Parkinson s disease and hemophilia, its gene therapy-related contracts, and the use of its previously manufactured clinical-grade vector materials. Under the terms of the agreement, Avigen received a $12.0 million payment and, in the event that Genzyme is successful in

Table of Contents

developing products utilizing technologies previously developed by Avigen, could receive additional development milestones, sublicensing fees and royalty payments. The potential development milestones consist of the $6.0 million milestone related to the Parkinson s product, as well as additional milestones upon the development of additional potential products. As is typical with agreements of this type, many of the milestone payments are tied to achievement of milestones that are subject to significant development risks and may not occur for many years, if at all. Each potential milestone is triggered by an event controlled by the pace and success of development by Genzyme or its licensees or decisions by regulatory authorities. Although the number of milestones is uncapped, the timing or ability to achieve any of these milestones is uncertain due to these risks, and the $6.0 million milestone related to the Parkinson s product is the most likely to be achieved in the near term but is still subject to these risks. The sublicensing fees that Avigen could receive represent approximately 25 percent of any licensing fees received by Genzyme for upfront, milestone or annual maintenance fees for technologies covered by the agreement. The royalty payments that Avigen could receive are in the low single digits based on cumulative net sales worldwide from each product commercialized during the respective royalty term. In addition, if Genzyme fails to diligently pursue the commercialization or marketing of products using the assigned technology, as specified in the agreement, some of the rights Avigen assigned could revert back to Avigen at a future date.

Avigen is a development stage company and has primarily supported the financial needs of its research and development activities since its inception through public offerings and private placements of equity securities. Avigen has not received any revenue from the commercial sale of its products in development, and Avigen does not anticipate generating revenue from the commercialization of AV411 in the foreseeable future. Currently Avigen has suspended development activities for AV411 for neuropathic pain but has continued its ongoing clinical development for AV411 for opioid addition and withdrawal which is being primarily funded by third-parties.

Products in Development

AV411 Neuropathic pain, opioid withdrawal and methamphetamine addiction

The AV411 portfolio, which includes the phase 2-staged lead drug compound and proprietary analogs, represents novel, first-in-class, non-opioid drugs for the treatment of several large pain and drug addiction indications. AV411 is a first-in-class, orally bioavailable small molecule, a glial attenuator that suppresses pro-inflammatory cytokines IL-1 beta, TNF alpha, and IL-6, and may upregulate the anti-inflammatory cytokine IL-10. It has additionally been shown to be a toll-like receptor 4 (TLR4) functional antagonist that may contribute to its attenuation of neuroinflammation. While considered a New Molecular Entity (NME) in the United States and Europe, it involves redirection of an approved drug, ibudilast, that was first approved in Japan more than 15 years ago. Ibudilast has been prescribed to over one million patients for a different indication and has a good post-marketing safety profile as reported in nearly 15,000 patients studied at the prescribed doses.

Based on its research, Avigen has filed for patents protecting multiple uses of AV411 in neurological conditions, as well as for patents on AV411 analogs which Avigen believes have the potential to be effective second generation molecules. As NMEs, AV411 and its analogs are additionally entitled to five years of marketing exclusivity from launch in the U.S. under Hatch-Waxman provisions and up to 10 years of exclusivity in the European Union.

Neuropathic pain: Glial activation in the brain and spinal cord contribute to the establishment and amplification of the chronic pain state. As part of Avigen s program investigating glial attenuation as a novel approach to the treatment of neuropathic pain, Avigen conceived and demonstrated that AV411 (ibudilast) was efficacious in preclinical models of neuropathic pain and may be effective in a wide range of neuropathic pain syndromes including neuropathy, post-herpetic neuralgia, HIV neuropathy, radiculopathy, spinal cord injury and chemotherapy-induced neuropathy. While ibudilast was initially developed as a non-selective phosphodiesterase (PDE) inhibitor for the treatment of bronchial asthma, its efficacy in some neuropathic pain models appears to be independent of this activity and yet still linked to glial attenuation.

AV411 has advanced through multiple Phase 1 and 2a clinical trials in both healthy volunteers and patients for neuropathic pain and the program, under current U.S. Food and Drug Administration standards, is able to

Table of Contents

enter Phase 2 development for pain in the United States based on completed Avigen preclinical and clinical development.

Opioid withdrawal: AV411 is currently in a Phase 1b/2a clinical trial funded by the National Institute on Drug Abuse (NIDA) and conducted at Columbia University by leading specialists in the study and treatment of substance abuse. AV411 and analogs have been shown in preclinical models of opioid (morphine or oxycodone) withdrawal to significantly reduce withdrawal symptoms. Moreover, AV411 attenuates both behavioral and neurochemical markers of opioid reward. AV411 and analogs are differentiated from other drug candidates in clinical trials that may demonstrate similar effects, in that AV411 and analogs are not narcotics and do not, themselves, provide reward or reinforcement in behavioral models of dependence. Thus, while current therapies involve substitution of one opioid for another (e.g. methadone for heroin), AV411 represents a novel, non-opioid, approach for the treatment of opioid withdrawal and dependence.

Methamphetamine addiction: In collaborative studies with NIDA, AV411 has demonstrated utility in methamphetamine relapse in animals which may be translated to a NIDA-funded exploratory clinical trial with UCLA investigators in 2009.

Other indications: cancer chemotherapeutic-induced neuropathy. In connection with Avigen s development program, Avigen observed efficacy of AV411 in preclinical pain models for chemotherapeutic-induced neuropathy, a disease affecting the nervous system. Avigen s research suggests that AV411 may allow oncologists to extend current treatment limits of chemotherapy that often result due to the development of painful sensitivities by their patients. AV411 therapy may separately be useful in treating established neuropathic pain symptoms following cancer chemotherapy regimens.

Gene Therapy Product Development Interests

In connection with Avigen s agreement with Genzyme, Avigen does not have any advisory or operational obligations to support the on-going development of gene therapy products. However, under the terms of the agreement, Avigen retains an opportunity to receive additional revenues in connection with the potential successful development by Genzyme of gene therapy products based on technologies Avigen originally developed. The additional revenues could be from milestone payments, sublicense fees and sales royalties. The potential for Avigen to realize additional revenues under this agreement could extend through approximately 2020, depending on when the last of the patents issued or that issue and are subject to the agreement expires. If Genzyme fails to diligently pursue the commercialization or marketing of products using the assigned technology, as specified in the agreement, some rights assigned to Genzyme under the agreement could revert back to Avigen at a future date.

Research Programs

Neuropathic Pain

In 2009, Avigen suspended or terminated all of its research programs, including programs through its collaborators, of potential products based on the potent anti-inflammatory cytokine interleukin-10, or IL-10, and related molecules. This research, which is also based on glial cell activation, includes Avigen s work with AV333. AV333 is a plasmid, or DNA sequence, that drives the production of IL-10 within the spinal cord to reverse, Avigen believes, the neuropathic pain resulting from glial activation. AV333 is delivered by an injection into the spinal canal similar to the routine procedure used to deliver spinal analgesics. Standardized animal models have shown that AV333 is well-tolerated and dramatically reverses neuropathic pain symptoms for up to ninety days from a single course of treatment.

In mid-2009, in an effort to reduce costs, Avigen ceased medicinal chemistry optimization and additional preclinical characterization of AV411-related new chemical entities.

Research and Development Expenses

Avigen incurred research and development expenses of approximately $3.6 million for the nine months ended September 30, 2009 and $23.6 million, $20.7 million, and $15.2 million for the fiscal years ended

Table of Contents

December 31, 2008, 2007, and 2006, respectively. During these periods, Avigen did not receive any reimbursements from governmental or other research grants or any other third parties to offset its expenses. As of September 30, 2009, Avigen was party to one collaborative agreement with the University of Colorado, under which it received partial reimbursement for some research and development expenses in 2007 under a grant by the National Institutes of Health. Avigen does not expect future reimbursements under this agreement to have a material impact on its financial statements.

Strategic Relationships

In its gene therapy transaction with Genzyme, Avigen sought a company that it believed had the resources and commitment to continue the development of products using DNA-based technologies. Through this transaction, Avigen retained the potential for future financial participation in the success of gene therapy products through contingent development milestones and royalty and licensing fees. In addition, Avigen delivered on management s commitment to enable work based on technologies it developed to continue for the benefit of patients suffering from Parkinson s disease and hemophilia.

In evaluating the proposed strategic business combination with MediciNova, Avigen placed value on the ability to combine the complimentary clinical programs and portfolios of intellectual property rights related to ibudilast (AV411). Each company has built strategic relationships with recognized scientists, clinicians and opinion leaders in the neurological fields associated with their clinical development programs and Avigen believes these relationships enhance the potential for global development of ibudilast in a broad range of neurological indications.

Competition

Pharmaceutical drug development is characterized by rapidly evolving technology and intense competition. Many companies of all sizes, including major pharmaceutical companies and specialized biotechnology companies, engage in activities similar to Avigen s activities. Many of the companies Avigen competes with have substantially greater financial and other resources and larger research and development and clinical and regulatory affairs staffs. Avigen expects its potential products, if approved, will face competition from both branded pharmaceuticals and generic compounds and may include other drug development technologies, other methods for preventing or reducing the incidence of disease, including vaccines, and other classes of therapeutic agents. In addition, colleges, universities, governmental agencies and other public and private research organizations continue to conduct research and are becoming more active in seeking patent protection and licensing arrangements to collect royalties for use of technologies that they have developed. Avigen also must compete with these institutions in recruiting highly qualified scientific personnel. Some of Avigen s competitors products and technologies are in direct competition with Avigen s. In addition, Avigen is aware that physicians may utilize other products in an off-label manner for the treatment of disorders it attempts to target.

Neuropathic Pain. Therapies for chronic pain range from over-the-counter compounds, such as aspirin, to opioids, such as morphine. Avigen anticipates that its products will compete with other drugs that are currently prescribed by physicians, including anti-epileptics such as: gabapentin and pregabalin, marketed by Pfizer as Neurontin and Lyrica, respectively; and antidepressants, including duloxetine, marketed by Eli Lilly & Co as Cymbalta. Avigen is aware of additional compounds for chronic neuropathic pain that are currently in development at numerous companies including Bayer, GlaxoSmithKline, Merck & Co., Inc., Novartis AG, Pfizer, Cognetix, Inc., GW Pharmaceuticals plc, Indevus Pharmaceuticals, Inc., Nastech Pharmaceutical Company Inc., Avanir Pharmaceuticals, Solace Pharmaceuticals, Pain Therapeutics, Inc., and XenoPort, Inc.

Opioid Withdrawal and Methamphetamine Addiction. Management of opioid induced withdrawal symptoms often involve the substitution of one opioid with a longer-acting opioid, followed by a gradual reduction in the dosage of the substitute drug or the use of various medications which are not approved, but are used off-label to mitigate physical symptoms and signs of withdrawal such as benzodiazepines and/or clonidine. Avigen anticipates that its products will compete with other drugs that are currently prescribed by physicians to treat withdrawal symptoms, including narcotics such as generic methadone and buprenorphine, marketed in the U.S.

Table of Contents

by Reckitt Benckiser Pharmaceuticals, Inc, as Suboxone (buprenorphine) and Subutex (buprenorphine + the narcotic antagonist naloxone). Limited non-narcotic drug candidates for withdrawal symptoms exist. Lofexidine, marketed in the U.K. by Britannia Pharmaceuticals as BritLofex and licensed for development in U.S. clinical trials to US WorldMeds is an alpha adrenoceptor agonist like clonidine which may have somewhat less orthostatic hypotension limitations. Importantly, the commercial potential for a new-class alternative is great as the existing buprenorphine treatments are exceeding initial sales projections and yet still carry the opioid class concerns. Besides lofexidine, Avigen believes there are currently no other clinically-advanced nor clinical proof-of-concept enabled drug candidates competing with AV411 although it is aware of no more than a few other compounds potentially useful for opioid withdrawal that are in development.

Companies that complete clinical trials, obtain required regulatory approvals, and commence commercial sales of their products before their competitors may achieve a significant competitive advantage. In order to compete successfully, Avigen must develop proprietary or otherwise protected positions in products for therapeutic markets that have not been satisfactorily addressed by current alternatives. These products, even if successfully tested and developed, may not be adopted by physicians over other products and may not offer economically feasible alternatives to other therapies.

Marketing and Sales

Avigen has retained rights to develop and market AV411, but does not have a marketing or sales staff. Avigen does not currently intend to independently pursue FDA approval of AV411 or any of its other product candidates and does not intend to build a commercial capability with its current resources.

Patents and Intellectual Property

Patents and other proprietary rights are important to Avigen s business. Avigen seeks to procure patent protection for its anticipated products, or obtain protection from the relevant patents owned by its licensors. Avigen s intellectual property strategy is to file patent applications that protect its technology, inventions and improvements to its inventions that it considers commercially important to the development of its business. Avigen also relies on a combination of trade secrets, know-how and licensing opportunities to develop and protect intellectual property rights pertaining to its products and technology.

As of November 12, 2009, Avigen owned, co-owned or held licenses to two issued U.S. patents and 9 pending U.S. patent applications, as well as corresponding pending non-U.S. patent applications. The two patents were issued in 2009 in the United States (7,534,806 Use of Ibudilast for the Treatment of Neuropathic Pain Syndromes; 7,585,875 Substituted pyrazolo-pyridine compounds and their methods of use) and will expire in 2025 and 2027. The patent applications are primarily related to Avigen s development portfolio of small molecule-based products and are currently directed to methods of treating various indications using AV411 and analogs. Avigen is not aware of any third-party infringement of the patents it holds or licenses and has not received any material claims by third parties of infringement by Avigen of such parties intellectual property rights.

Some of the compounds used in Avigen s development products have been previously patented by others. When Avigen identifies previously patented technologies that it believes are critical to the development and commercialization of its products, Avigen seeks to in-license such rights under the most favorable terms. Such licenses normally last for the life of the underlying patent. Licenses typically require Avigen to pay license fees and royalties based on the net sales of products that fall within the scope of the license. Some licenses require Avigen to exercise its best efforts or another level of efforts to achieve research, clinical, and commercial milestones and may require it to make additional payments upon the completion of such milestones. Avigen s failure to be diligent or achieve any required development milestones or to negotiate appropriate extensions of any of its license agreements or to make all required milestone and royalty payments when due, and the subsequent decision of any such institution to terminate such license, could have a material adverse effect on Avigen s financial position.

Table of Contents

Avigen is currently party to the following exclusive license:

University of Colorado. In November 2003, Avigen entered into an agreement with the University of Colorado for rights to specified intellectual property related to the treatment of chronic pain with AV333. The license is exclusive for the duration of any issued patents embodying the licensed intellectual property, or until approximately 2023. Avigen s license may convert to a non-exclusive license or may be terminated by the University of Colorado if Avigen fails to meet its diligence obligations. Although Avigen s development of AV411 for neuropathic pain is not subject to the intellectual property underlying this agreement, Avigen continues to explore the use of AV411 for additional indications in collaboration with the University of Colorado, and has expanded the scope of the agreement to incorporate additional intellectual property jointly developed by the two parties, including for addiction and withdrawal indications. In 2009, the license agreement was revised to cover only co-owned intellectual property relating to the use of ibudilast for drug and behavioral addiction indications.

Avigen cannot assure investors and stockholders that the claims in its pending patent applications will be issued as patents, that any issued patents will provide Avigen with significant competitive advantages, or that the validity or enforceability of any of its patents will not be challenged or, if instituted, that these challenges will not be successful. The cost of litigation to uphold the validity and prevent infringement of Avigen s patents could be substantial. Furthermore, Avigen cannot assure investors and stockholders that others will not independently develop similar technologies or duplicate its technologies or design around the patented aspects of its technologies. Avigen can provide no assurance that its proposed technologies will not infringe patents or rights owned by others, the licenses to which might not be available to Avigen.

In addition, if Avigen pursues patent applications in foreign countries, their approval processes for patent applications may differ significantly from the processes in the U.S. The patent authorities in each country administer that country s laws and regulations relating to patents independently of the laws and regulations of any other country and the patents must be sought and obtained separately. Therefore, issuance of a patent in one country does not necessarily indicate that it can be obtained in other countries. Avigen s policy is to make a case-by-case determination as to whether to file a foreign application to correspond to each of its U.S. applications. Sometimes Avigen decides not to do so. Avigen makes the decision with respect to each patent application on a country-by-country basis.

Gene Therapy-Related Patents

In December 2005, Avigen transferred the intellectual property rights, including in-licenses, for its gene therapy-based products to Genzyme. Under the terms of the agreement, it assigned to Genzyme its rights to some of its gene therapy-related intellectual property, its gene therapy clinical trial programs for Parkinson s disease and hemophilia, some of its gene therapy-related contracts, and the use of its previously manufactured clinical-grade vector materials. These intellectual property rights included 62 U.S. and international patents owned by Avigen. However, if Genzyme fails to diligently pursue the commercialization and marketing of products using the assigned technology, as specified in the agreement, some of the technology Avigen assigned could revert back to Avigen at a future date, Under the terms of the agreement, Avigen received a $12.0 million payment and could receive significant future milestone, sublicensing fees and royalty payments based on the successful development of products by Genzyme utilizing technologies previously developed by Avigen.

Government Regulation

The FDA and comparable regulatory agencies in state and local jurisdictions and in foreign countries regulate extensively the clinical development, manufacture, distribution and sale of pharmaceutical products. These agencies and other federal, state and local entities regulate research and development activities and the testing, manufacture, quality control, safety, effectiveness, labeling, storage, distribution, record keeping, approval and promotion of Avigen s development products. All of Avigen s products will require regulatory approval before commercialization. In particular, therapeutic products for human use are subject to rigorous

Table of Contents

preclinical and clinical testing and other requirements of the Federal Food, Drug, and Cosmetic Act, implemented by the FDA, as well as similar statutory and regulatory requirements of foreign countries and supervisory review boards affiliated with institutions that may perform Avigen s clinical trials.

Obtaining marketing approvals and subsequently complying with ongoing statutory and regulatory requirements is costly and time consuming. Any failure by Avigen or its collaborators, third-party manufacturers, licensors or licensees to obtain, or any delay in obtaining regulatory approval or in complying with other requirements, could adversely affect the commercialization of products then being developed by Avigen and its ability to receive product or royalty revenues.

This process of clinically testing drugs and seeking approval to market them can take a number of years and typically requires substantial financial resources. The results of preclinical studies and initial clinical trials are not necessarily predictive of the results from large-scale clinical trials. All clinical trials may be subject to additional costs, delays or modifications due to a number of factors, including the difficulty in obtaining enough subjects, clinical investigators, drug supply, or financial support, or because of unforeseen adverse effects. In addition, as a condition of approval, the FDA also can require further testing of the product and monitoring of the effect of commercialized products, and the agency has the power to prevent or limit further marketing of a product based on the results of these post-marketing programs. Upon approval, a drug product may be marketed only in those dosage forms and for those indications for which it is approved.

In addition to obtaining FDA approval for each indication to be treated with each product, each domestic drug product manufacturing establishment must register with the FDA, list its drug products with the FDA, comply with current Good Manufacturing Practices and pass inspections by the FDA. Manufacturers of biological products also must comply with FDA general biological product standards. Moreover, the submission of applications for marketing approval from the FDA may require additional time to complete manufacturing stability studies. Foreign establishments manufacturing drug products for distribution in the United States also must list their products with the FDA and comply with current Good Manufacturing Practices. They also are subject to periodic inspection by the FDA or by local authorities under agreement with the FDA. If Avigen relies on strategic relationships with third-party manufacturers, with either U.S. or foreign manufacturing establishments, it may not be able to ensure effective compliance with these FDA requirements, which could impact the timing and potential success of its development and commercialization of Avigen s potential products. Because Avigen s current facilities are located in California, if it decides to manufacture any of its products in Avigen s facilities that are administered to humans, including products used for testing in clinical trials, Avigen would also be required to obtain a drug manufacturing license from the State of California.

Other Regulations

In addition to regulations enforced by the FDA, in the U.S. Avigen is also subject to regulation under the Occupational Safety and Health Act, the Environmental Protection Act, the Toxic Substances Control Act, the Resource Conservation and Recovery Act, and other federal, state and local regulations. Avigen s research and development activities involve the controlled use of hazardous materials, chemicals, biological materials, and various radioactive compounds. Although Avigen believes that its safety procedures for handling and disposing of these materials comply with the standards prescribed by state and federal regulations, Avigen could be held liable for any damages that result from accidental contamination or injury and this liability could exceed its resources. In addition, Avigen s handling, care, and use of laboratory rodents are subject to the Guide for the Care and Use of laboratory Animals published by the National Institutes of Health.

Avigen s clinical trials may also involve subjects who reside outside of the U.S. which can involve subsequent monitoring of the subjects responses at clinical sites outside the U.S. where other regulations apply.

Table of Contents

Employees

As of November 1, 2009, Avigen had four full-time employees, including an officer with a Ph.D. degree who is responsible for oversight of Avigen s research and development activities, including research, preclinical development, intellectual property management and clinical affairs, and three employees that are involved in general administration and finance activities. None of Avigen s employees are represented by a collective bargaining agreement nor has it ever experienced a work stoppage. Avigen believes that its relationship with its employees is good.

Revenues

Avigen s revenues for the nine months ended September 30, 2009 were $103,000 and for the fiscal years ended December 31, 2008 and 2006 were $7.1 million and $0.1 million, respectively. No revenues were recognized in 2007. Revenue for 2009 and 2008 represented income from the sale of the rights to Avigen s early stage blood coagulation compound, AV513, to Baxter Healthcare. Revenue for 2006 represented income from Avigen s participation with the University of Colorado on a grant that was funded by the National Institutes of Health. All of Avigen s revenues were from companies located in the United States, and all of its long-lived assets are located in the United States. See Avigen s financial statements included elsewhere in this joint proxy statement/prospecuts for more information regarding Avigen s financial performance.

Properties

Avigen leases its facility which has approximately 67,000 square feet of laboratory and office space in a commercial neighborhood of Alameda, California under a 10-year lease that is scheduled to expire in November 2010. As of March 1, 2009, Avigen had sublease agreements covering 31,100 square feet, or 46 percent, of the building to three separate corporate tenants not affiliated with Avigen. Each sublease agreement runs concurrent with the duration of the underlying master lease term. Under these sublease agreements, Avigen is scheduled to receive sublease rental income and reimbursement for portions of the related facilities overhead costs which will be recorded as a reduction to operating expenses.

Legal Proceedings

On August 25, 2009, The Pennsylvania Funds filed a class action lawsuit in the Superior Court of the State of California, County of Alameda, purportedly on behalf of the stockholders of Avigen, against Avigen and its directors, alleging that Avigen s directors breached their fiduciary duties to the stockholders of Avigen in connection with the proposed acquisition of Avigen by MediciNova. On October 15, 2009, The Pennsylvania Avenue Funds filed an amended complaint adding MediciNova as a defendant. In the amended complaint, The Pennsylvania Avenue Funds alleged, among other things, that MediciNova aided and abetted the alleged breach of fiduciary duties by the Avigen directors. The Pennsylvania Avenue Funds purportedly brings the action on behalf of a stockholder class and may seek injunctive relief, compensatory and rescissory damages, and attorney s fees. Avigen and its directors intend to take all appropriate actions to defend the suit.

Table of Contents

MEDICINOVA S MANAGEMENT S DISCUSSION AND ANALYSIS OF

FINANCIAL CONDITION AND RESULTS OF OPERATION

The following discussion and analysis of financial condition and results of operations should be read together with the sections of this joint proxy statement/prospectus entitled MediciNova s Business beginning on page 120, Risk Factors beginning on page 22 and Selected Historical Consolidated Financial Data of MediciNova beginning on page 17, and MediciNova s financial statements and accompanying notes appearing elsewhere in this joint proxy statement/prospectus. This discussion of MediciNova s financial condition and results of operations contains certain statements that are not strictly historical and are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 and involve a high degree of risk and uncertainty. Actual results may differ materially from those projected in the forward-looking statements due to other risks and uncertainties that exist in MediciNova s operations, the clinical development process and business environment, including those set forth in the section titled Risk Factors beginning on page 22 of this joint proxy statement/prospectus and the other risks and uncertainties described elsewhere in this joint proxy statement/prospectus. All forward-looking statements included in this joint proxy statement/prospectus are based on information available to MediciNova as of the date hereof, and MediciNova assumes no obligation to update any such forward-looking statement.

Overview and Recent Developments

MediciNova is a biopharmaceutical company focused on acquiring and developing novel, small molecule therapeutics for the treatment of diseases with unmet need with a specific focus on the U.S. market. Through strategic alliances primarily with Japanese pharmaceutical companies, MediciNova holds rights to a diversified portfolio of clinical and preclinical product candidates, each of which MediciNova believes has a well-characterized and differentiated therapeutic profile, attractive commercial potential and patent assets having claims of commercially adequate scope.

MediciNova is a development stage company, and MediciNova has incurred significant net losses since its inception. At September 30, 2009, from inception, MediciNova s accumulated deficit was $241.4 million, including $45.8 million of non-cash stock-based compensation charges related to employee stock-based compensation and founders warrants. MediciNova expects to incur substantial net losses for at least the next several years as MediciNova continues to develop certain of its existing product development programs, primarily MN-221 for the treatment of acute exacerbations of asthma and COPD exacerbations, and over the long-term if MediciNova is successful in expanding its research and development programs and acquiring or in-licensing products, technologies or businesses that are complementary to its own.

MediciNova has acquired licenses to eight compounds for the development of ten product candidates. MediciNova s development pipeline consists of eight product development programs which have been in clinical development for the treatment of acute exacerbations of asthma, MS, bronchial asthma, IC, solid tumor cancers, Generalized Anxiety Disorder/insomnia, preterm labor and urinary incontinence, and two product development programs which have been in preclinical development for the treatment of thrombotic disorders. In addition, MediciNova has expanded its development program for MN-221 for the treatment of COPD exacerbations.

At present, MediciNova is focusing its resources on the following two prioritized product development programs:

- MN-221 for the treatment of acute exacerbations of asthma and COPD exacerbations, for which it initiated a Phase II clinical trial in the first quarter of 2009 to evaluate the safety and efficacy of MN-221 in patients with severe, acute exacerbations of asthma treated in the emergency room, initiated a Phase Ib clinical trial in the fourth quarter of 2009 to evaluate the safety of MN-221 at planned escalating doses in patients with stable, moderate to severe COPD and completed a Phase II clinical trial in the second quarter of 2009 which evaluated MN-221 at planned escalating doses in patients with severe, acute exacerbations of asthma treated in the emergency room; and

Table of Contents

MN-166 for the treatment of MS, for which it completed a Phase II clinical trial in Eastern Europe in the second quarter of 2008. Upon completion of proof-of-concept Phase II clinical trials, MediciNova will either continue to pursue development independently in the United States, as MediciNova presently intends with MN-221, or establish a strategic collaboration to support further clinical development, as MediciNova presently intends with MN-166. Following the completion of the Phase II clinical trial for MN-166, MediciNova is not planning to pursue any further significant development of MN-166 until such time that MediciNova is able to secure a strategic collaboration to advance the clinical development of MN-166. In addition, MediciNova intends to limit development activities for the balance of its existing product candidates. For each of the remaining product candidates, MediciNova plans to conduct development activities only to the extent deemed necessary to maintain its license rights or maximize its value while pursuing a variety of initiatives to monetize such product candidates on appropriate terms.

On April 22, 2009, MediciNova reported the final results from the Phase II clinical trial (MN-221-CL-006) which evaluated MN-221 at planned escalating doses of 240 to 1,080 micrograms in patients with severe, acute exacerbations of asthma treated in emergency departments. The study included 29 (13 treated with standard care only and 16 treated with MN-221 plus standard care) patients with severe, acute exacerbations of asthma. All patients received standardized care consisting of inhaled albuterol, ipratropium and oral steroid treatment. No safety concerns with adding MN-221 to standardized care were identified following review of ECG, laboratory and Adverse Experience data. The hospitalization rate among patients treated with standardized care only was 46 percent (six of 13), which was the anticipated rate, compared to a hospitalization rate of 25 percent (four of 16) among patients receiving MN-221 plus standardized care. As specified in the protocol for this clinical trial, no inferential statistics (i.e., p-values) were calculated for this study. Improvement FEV_1, values generally appeared to be greater for patients receiving MN-221 in addition to standardized treatment.

On April 22, 2009, MediciNova also announced that the Phase II clinical trial (MN-221-CL-007) designed to evaluate the safety and efficacy of MN-221 in patients with severe, acute exacerbations of asthma began enrolling patients in the United States. The study is designed to enroll approximately 200 patients at approximately 35 emergency department clinical sites, including the clinical sites rolled over from the MN-221-CL-006 study, in North America, Australia and New Zealand. The MN-221-CL-007 clinical trial was initially designed to compare standardized care to standardized care plus MN-221 at a dose of 1,200 micrograms administered over one hour. Once a patient has received the initial standardized care treatment regimen, the patient will be assessed for response to that treatment. If the patient s FEV_1 is less than or equal to 50 percent of predicted and the patient meets all other study entry criteria, the patient will be randomized to receive either MN-221 or placebo. Patients enrolled in the study will continue to receive standardized care as needed. The primary efficacy endpoint will be improvement in FEV_1.

On May 28, 2009, MediciNova announced the modification of the dosing regimen for the Phase II clinical trial (MN-221-CL-007) for MN-221 in patients with severe, acute exacerbations of asthma. Dosing in the MN-221-CL-007 clinical trial was modified to compare standardized care only to standardized care plus MN-221 at a dose of 250 micrograms administered over 15 minutes rather than at a dose of 1,200 micrograms administered over one hour. The modification was based on further analysis of data from the recently completed Phase II clinical trial (MN-221-CL-006) which evaluated MN-221 at planned escalating doses in patients with severe, acute exacerbations of asthma treated in emergency departments and two earlier Phase II clinical trials (MN-221-CL-004 and MN-221-CL-005) which evaluated MN-221 in patients with stable asthma.

On July 13, 2009, MediciNova announced the proposed final protocol for the Phase II clinical trial for MN-221 in patients with severe, acute exacerbations of asthma (MN-221-CL-007). Following a more comprehensive pharmacokinetic/pharmacodynamic analysis and model of data from previous Phase II clinical trials, MediciNova determined that the dose of 1,200 micrograms of MN-221 administered over one hour may provide greater potential efficacy without conferring additional risk to patients. As a result, the dosing in this

Table of Contents

clinical trial was changed to compare standardized care only to standardized care plus MN-221 at a dose of 1,200 micrograms administered over one hour rather than at a dose of 250 micrograms administered over 15 minutes. As of August 2009, patient enrollment resumed, and MediciNova anticipates completing enrollment within nine to 12 months of August 2009.

On July 20, 2009, MediciNova announced its plans to initiate the evaluation of MN-221 for the treatment of COPD exacerbations. This indication represents the second respiratory indication for which MediciNova is currently evaluating MN-221. See Subsequent Events below.

Subsequent Events

On August 24, 2009, The Pennsylvania Avenue Funds, an Avigen stockholder, filed a complaint in Alameda County Superior Court alleging that Avigen s directors breached their fiduciary duties in connection with the proposed transaction with MediciNova. On October 15, 2009, The Pennsylvania Avenue Funds filed an amended complaint adding MediciNova as a defendant. In the amended complaint, the Pennsylvania Avenue Funds alleged, among other things, that MediciNova aided and abetted the alleged breach of fiduciary duties by the Avigen directors. The Pennsylvania Avenue Funds purportedly brings the action on behalf of a stockholder class and may seek injunctive relief, compensatory and rescissory damages, and attorney s fees. MediciNova believes it has meritorious defenses, and it intends to defend itself in this lawsuit. MediciNova does not believe that this lawsuit will have a material adverse effect on MediciNova s business, financial condition or operating results.

On November 3, 2009, MediciNova announced the initiation of a Phase Ib clinical trial, by holding the Investigators Meeting, to evaluate the safety of MN-221 at planned escalating doses in patients with stable, moderate to severe COPD. This randomized, placebo-controlled, dose escalation Phase Ib clinical trial will involve approximately 48 stable, moderate to severe COPD patients. Each patient will receive a one-hour intravenous infusion of MN-221 at one of three escalating dose levels or placebo. Safety and preliminary efficacy data will be collected and summarized, but will not be subjected to inferential statistical analysis.

Revenues and Cost of Revenues

MediciNova has not generated any revenues from licensing, milestones or product sales to date and does not expect to generate any revenues from the commercialization of its product candidates within the next several years, if at all. MediciNova revenues to date have been generated from providing development management services under master service agreements with Asahi Kasei Pharma Corporation and Argenes, Inc., pursuant to which MediciNova billed consulting fees and its pass-through clinical contract costs. The primary costs associated with this revenue were the clinical contract costs incurred by MediciNova and passed-through to its customer. MediciNova s agreement with Asahi Kasei Pharma Corporation has been completed, and MediciNova terminated its agreement with Argenes, Inc. Therefore, MediciNova will not generate any further revenue from these agreements.

Research and Development

MediciNova s research and development expenses consist primarily of the license fees related to its product candidates, salaries and related employee benefits, costs associated with the preclinical and clinical development of its product candidates, costs associated with non-clinical activities, such as regulatory expenses, and pre-commercialization manufacturing development activities. MediciNova uses external service providers to manufacture its product candidates to be used in clinical trials and for the majority of the services performed in connection with the preclinical and clinical development of its product candidates; therefore, these research and development expenses consist substantially of external costs, such as fees paid to consultants, CROs, contract manufacturers and other external service providers, including professional fees and costs associated with legal services, patents and patent applications for its intellectual property. Internal research and development expenses consist of costs of compensation and other expenses for research and development personnel, supplies, materials, facility costs and depreciation. Research and development costs are expensed as incurred or accrued based on certain contractual factors such as for estimates of work performed, milestones achieved, patient enrollment and experience with similar contracts. As actual costs become known, accruals are adjusted. To date, MediciNova s estimates have not differed significantly from the actual costs incurred.

Table of Contents

The following table summarizes MediciNova s research and development expenses for the periods indicated for each of its product candidates. To the extent that costs, including personnel costs, are not tracked to a specific product development program, such costs are included in the Unallocated category (in thousands):

Product Candidate	Disease/Indication	Three months ended September 30, 2009	Three months ended September 30, 2008	Nine months ended September 30, 2009	Nine months ended September 30, 2008
MN-221	Acute exacerbations of asthma	$ 1,656	$ 2,751	$ 5,868	$ 5,668
MN-166	Multiple sclerosis	140	(171)	631	2,850
MN-001	Bronchial asthma	11	(41)	47	91
MN-001	Interstitial cystitis	3	7	15	32
MN-029	Solid tumors	13	179	74	748
MN-305	Generalized Anxiety Disorder/insomnia	(4)		(2)	11
MN-221	Preterm labor		1		95
MN-246	Urinary incontinence	1	1	7	(19)
MN-447	Thrombotic disorders				123
MN-462	Thrombotic disorders				5
Unallocated		560	774	1,586	2,219
Total research and development		$ 2,380	$ 3,501	$ 8,226	$ 11,823

As of the end of the second quarter of 2007, MediciNova determined to focus its resources on the development of its two prioritized product candidates, MN-221 for the treatment of acute exacerbations of asthma and MN-166 for the treatment of MS. However, following completion of the Phase II clinical trial of MN-166 for the treatment of MS in the second quarter of 2008, MediciNova has not undertaken, nor does it plan to undertake, any further significant clinical development of MN-166 until such time that it secures a strategic collaboration to advance the clinical development of MN-166. In addition, as of the third quarter of 2009, MediciNova determined to expand the product development program for MN-221 to evaluate MN-221 for the treatment of COPD exacerbations. MediciNova anticipates that its research and development expenses will increase with respect to MN-221 in future periods as it continues development and launches clinical trials in support of potential commercialization of this product candidate for the treatment of acute exacerbations of asthma and COPD exacerbations and decrease with respect to MN-166 in future periods as MediciNova will limit expenditures on this product candidate to those development activities deemed necessary, if any, to maximize its value for purposes of securing a partner for clinical development. However, at this time, due to the risks inherent in the clinical development process and given the early stage of MediciNova s MN-221 product development programs, MediciNova is unable to estimate with any certainty the costs that it will incur in the continued development of such product candidate for potential commercialization.

MediciNova intends to limit its expenditures on the remainder of its existing product candidates to only those activities deemed necessary to maintain its license rights or maximize the value of such product candidates, if any, while pursuing a variety of initiatives to monetize such product candidates on appropriate terms. As a result, MediciNova expects that research and development expenses will decrease or otherwise remain low for the remainder of its existing product candidates in future periods. These eight non-prioritized product development programs consist of the following:

MN-001 for the treatment of bronchial asthma, for which MediciNova initiated a Phase III clinical program in the fourth quarter of 2006 that MediciNova subsequently terminated in the second quarter of 2007 and for which MediciNova developed prototypes of once-per-day oral dosing formulations;

MN-001 for the treatment of interstitial cystitis, for which MediciNova completed a Phase II/III clinical trial in the first quarter of 2007;

MN-029 for the treatment of solid tumors, for which MediciNova completed one Phase I clinical trial in the second quarter of 2006 and one Phase I clinical trial in the fourth quarter of 2007;

Table of Contents

MN-305 for the treatment of Generalized Anxiety Disorder/insomnia, for which MediciNova completed a Phase II/III clinical trial for the treatment of Generalized Anxiety Disorder in the second quarter of 2006 and a Phase II clinical trial for the treatment of insomnia in the fourth quarter of 2007;

MN-221 for the treatment of preterm labor, for which MediciNova completed a Phase I clinical trial to investigate the pharmacokinetic profile of MN-221 in healthy pregnant women not in labor in the second quarter of 2007;

MN-246 for the treatment of urinary incontinence, for which MediciNova completed a Phase I clinical trial in the fourth quarter of 2006 and a Phase I food effects study in the first quarter of 2007;

MN-447 for the treatment of thrombotic disorders, which remains in preclinical development; and

MN-462 for the treatment of thrombotic disorders, which remains in preclinical development.

General and Administrative

MediciNova s general and administrative expenses primarily consist of salaries, benefits and consulting and professional fees related to its administrative, finance, human resources, business development, legal and information systems support functions. In addition, general and administrative expenses include facilities and insurance costs. General and administrative costs are expensed as incurred or accrued based on monitoring the status of the specified project, contractual factors such as milestones or retainer fees, services provided and invoices received. As actual costs become known to MediciNova, accruals are adjusted. To date, general and administrative accruals have not differed significantly from the actual costs incurred.

MediciNova anticipates that its general and administrative expenses may increase in future periods if it is required to expand its infrastructure based on the success of its current prioritized product development programs and in raising capital to support those and other development programs or otherwise in connection with increased business development activities related to partnering, out-licensing or disposition of its product candidates.

Investment Securities and ARS Put

MediciNova s investment securities consist of ARS, all of which had AAA ratings at the time of original purchase. ARS are generally long-term debt instruments that historically have provided liquidity through a Dutch auction process that resets the applicable interest rate at predetermined calendar intervals, typically seven, 28, 35 or 49 days. All of MediciNova s ARS principally represent interests in municipal bonds, government-guaranteed student loans, insurance notes and portfolios of securities (primarily commercial paper). When MediciNova s ARS were originally purchased, there was an active market for purchasing and selling ARS; therefore, MediciNova considered these investment securities to be available-for-sale.

Due to continued negative conditions in the global credit markets, MediciNova s ARS have continued to fail at auction with few to no trades in either the primary or the secondary markets. As such, with the adoption of ASC 820, authoritative guidance for fair value measurements and disclosures (formerly SFAS No. 157), MediciNova determines the fair value of its ARS portfolio primarily on Level 3 criteria, which results in MediciNova s reliance on a discounted cash flow valuation model with assumptions related to interest rates, maturities and liquidity determined by MediciNova based on the credit quality of the security, the credit quality of the associated insurer, if applicable, the respective prospectus and the credit market outlook. Given the lack of a primary and secondary market for its ARS investment securities, MediciNova designated all of its ARS investment securities as trading securities at December 31, 2008; as a result, any additional increase or decrease in the fair value of its ARS investment securities is recorded as either a gain or an impairment charge, respectively, in its consolidated statement of operations. For the three months ended September 30, 2009, MediciNova recorded a net gain on its investment securities and the ARS Put of approximately $0.1 million to increase the carrying value of its investment securities. MediciNova has classified its investment securities covered by the ARS Rights Offer as current assets given that they can be converted into cash within twelve

Table of Contents

months from September 30, 2009. MediciNova s remaining investment securities are considered long-term assets, as they cannot be readily converted to cash within 12 months from September 30, 2009.

In August 2008, UBS, the brokerage firm through which MediciNova purchased the majority of its ARS, entered into a settlement with the SEC, the New York Attorney General and other state agencies. Under the settlement, UBS issued to MediciNova the ARS Rights Offer. Pursuant to the ARS Rights Offer, MediciNova received the right to sell to UBS the ARS held in accounts with UBS at par value at any time during the period beginning June 30, 2010 and ending July 2, 2012. As part of the settlement, UBS also offered MediciNova the ARS Loan, whereby MediciNova would be able to borrow up to 75 percent of the market value, as determined by UBS at its sole discretion, of its ARS that have been pledged as collateral at an interest cost that would not exceed the interest being paid on the underlying ARS investments. Under the ARS Loan program, UBS may demand full or partial payment of the ARS Loan, at its sole option and without cause, at any time. If at any time UBS exercises its right to terminate the credit line agreement governing the ARS Loan, then UBS is required to provide, as soon as reasonably possible, alternative financing on substantially the same terms and conditions as those under the credit line agreement and the agreement will remain in full force and effect until such time as such alternative financing has been established. In January 2009, MediciNova was approved for the ARS Loan in the amount of $15.9 million and drew down the entire preapproved amount. In addition, in February 2009, MediciNova borrowed an additional $2.2 million under the ARS Loan, bringing the total amount outstanding under the ARS Loan to $18.1 million, following UBS decision to increase MediciNova s availability under the ARS Loan. All cash received under the ARS Loan was invested in money market accounts. At September 30, 2009, the outstanding balance of the ARS Loan was $17.7 million.

Although MediciNova has the right to sell to UBS the ARS subject to the ARS Put at par beginning June 30, 2010, MediciNova determined the fair market value of the ARS without consideration of the ARS Put because they are deemed separate contractual agreements under ASC 820, authoritative guidance for fair value measurements and disclosures (formerly SFAS No. 157).

MediciNova elected to measure the ARS Put under the fair value option of ASC 825, authoritative guidance on financial instruments (formerly SFAS No. 159), to mitigate the volatility in reported earnings due to the linkage of certain of its ARS and the ARS Put. Under ASC 825, any subsequent increase or decrease in the fair value of the ARS Put would be recorded as either a gain or an impairment charge, respectively, in MediciNova s consolidated statement of operations. The fair value of the ARS Put was also determined by a discounted cash flow valuation model with assumptions being made related to interest rate, maturity and liquidity. For the three months ended September 30, 2009, based on its discounted cash flow valuation, MediciNova recorded a net impairment charge of $0.3 million in its consolidated statement of operations due to a decrease in the carrying value of the ARS Put to $5.3 million.

Foreign Exchange

To date, MediciNova has conducted most of its clinical trials in the United States. However, the Phase II clinical trial for MN-166 for the treatment of MS was conducted entirely in Eastern Europe. When MediciNova entered into the euro-denominated contract with the CRO managing this clinical trial on MediciNova s behalf, the U.S. dollar to euro conversion rate had remained fairly constant; therefore, MediciNova did not enter into a hedging program to mitigate its foreign exchange exposure at such time. MediciNova completed this clinical trial in the second quarter of 2008. Foreign exchange gain or loss is attributable to the strengthening or weakening, respectively, of the U.S. dollar against the euro and is reflected in the remaining accrued payable for this foreign currency contract.

Interest Income, Net

Interest income consists primarily of interest earned on MediciNova s cash, cash equivalents and investment securities, offset by the interest charged on the ARS Loan.

Table of Contents

Critical Accounting Policies and Estimates

MediciNova s discussion and analysis of its financial condition and results of operations is based on its consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of the consolidated financial statements requires MediciNova to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and the related disclosure of contingent liabilities. MediciNova reviews its estimates on an ongoing basis, including those related to its significant accruals. MediciNova bases its estimates on historical experience and on various other assumptions that it believes to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ from these estimates under different assumptions or conditions. MediciNova s critical accounting policies and estimates are the same as those noted in its Annual Report on Form 10-K for the year ended December 31, 2008 as filed with the SEC on March 31, 2009.

New Accounting Standards Recently Adopted

In April 2009, the Financial Accounting Standards Board, or FASB, issued several pronouncements related to fair value measurement, recording and disclosure in financial reporting. ASC 825-10-65-1 (formerly FASB Staff Position No. 107-1 and Accounting Principles Board 28-1, Interim Disclosures about Fair Value of Financial Instruments), were issued to outline the required financial statement disclosures relating to fair value of financial instruments during interim reporting periods. ASC 820-10 (formerly FASB Staff Position No. 157-4, Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly), was issued to provide additional guidance in evaluating the fair value of a financial instrument when the volume and level of activity for the asset or liability has significantly decreased. FASB Staff Position No. 115-2 and FASB Staff Position No. 124-2, Recognition and Presentation of Other-Than-Temporary Impairments, were issued to provide additional guidance on presenting impairment losses on securities. All of the fair value measurement pronouncements were effective for interim and annual reporting periods ending after June 15, 2009. The adoption of these new pronouncements did not have a material effect on MediciNova s consolidated results of operations or financial condition.

In May 2009, the FASB issued ASC 855-10 (formerly SFAS No. 165, Subsequent Events). ASC 855-10 establishes general standards of accounting for and disclosure of events that occur after the balance sheet date but before financial statements are issued or are available to be issued. ASC 855-10 is effective for interim or annual financial periods ending after June 15, 2009. The adoption of ASC 855-10 did not have a material effect on MediciNova s consolidated results of operations or financial condition.

In July 2009, the FASB issued ASC 105 (formerly SFAS No. 168). ASC 105 contains guidance which reduces the U.S. GAAP hierarchy to two levels, one that is authoritative and one that is not. This pronouncement is effective September 15, 2009. MediciNova adopted the FASB authoritative guidance on the ASC and the hierarchy of U.S. GAAP, which establishes the ASC as the sole source of authoritative guidance recognized by the FASB to be applied by nongovernmental entities. Accordingly, MediciNova revised references to legacy U.S. GAAP to be consistent with the ASC in MediciNova s publicly issued consolidated financial statements, starting with the accompanying unaudited condensed consolidated financial statements and disclosures for the period ended September 30, 2009. The adoption of this pronouncement did not have an effect on MediciNova s consolidated financial statements.

New Accounting Standards Recently Issued

In October 2009, the FASB approved for issuance Emerging Issues Task Force Issue 08-01, Revenue Arrangements with Multiple Deliverables , currently within the scope of ASC 605. ASC 605 provides principles for allocation of consideration among its multiple-elements, allowing more flexibility in identifying and accounting for separate deliverables under an arrangement. ASC 605 introduces an estimated selling price method for valuing the elements of a bundled arrangement if vendor-specific objective evidence or third-party

Table of Contents

evidence of selling price is not available, and significantly expands related disclosure requirements. This accounting standard is effective on a prospective basis for revenue arrangements entered into or materially modified in fiscal years beginning on or after June 15, 2010. Alternatively, adoption may be on a retrospective basis, and early application is permitted. MediciNova does not believe the adoption of this accounting standard will have a material effect on its consolidated results of operations or financial condition.

Results of Operations

Comparison of the Three Months Ended September 30, 2009 and 2008

Revenues

There were no revenues for the three months ended September 30, 2009 or September 30, 2008.

Research and Development

Research and development expenses for the three months ended September 30, 2009 were $2.4 million, a decrease of $1.1 million when compared to $3.5 million for the three months ended September 30, 2008. The net $1.1 million decrease in research and development expenses was primarily due to the completion of a Phase II clinical trial of MN-221 for the treatment of acute exacerbations of asthma, which was offset by spending on the currently active Phase II clinical trial for MN-221 for the treatment of acute exacerbations of asthma and Phase Ib clinical trial for the treatment of COPD exacerbations.

General and Administrative

General and administrative expenses were $2.6 million for the three months ended September 30, 2009, an increase of $0.4 million when compared to $2.2 million for the three months ended September 30, 2008. This increase was due to an increase of $0.3 million in legal fees in connection with the Merger and $0.1 million in consulting fees in connection with business development activities.

Gain/Impairment Charge on Investment Securities and ARS Put

For the three months ended September 30, 2009, MediciNova recorded a net gain of $73,000 on its ARS investment portfolio and the ARS Put based on fair value determined by MediciNova s discounted cash flow models with liquidity discount. For the three months ended September 30, 2008, there was no change in the overall fair market value of MediciNova s ARS investment portfolio. The net gain was primarily a result of an increase in the fair market value of MediciNova s long-term investment securities.

Foreign Exchange Gain/Loss

For the three months ended September 30, 2009, MediciNova recorded a foreign exchange loss of $12,000 due to the revaluation of its euro-denominated liability, as compared to a foreign exchange gain of $0.5 million for the three months ended September 30, 2008. The loss for the three months ended September 30, 2009 was due to the continued weakening of the U.S. dollar, and the gain for the three months ended September 30, 2008 was due to the true-up of MediciNova s euro-denominated contract which resulted in a reversal of foreign exchange loss.

Interest Income, Net

Interest income, net consisted of income earned on MediciNova s cash and investment balances and totaled $87,000 for the three months ended September 30, 2009, a decrease of $266,000 when compared to $353,000 for the three months ended September 30, 2008. The decrease was primarily due to a decrease in interest earned on most of MediciNova s cash and investment balances due to lower interest rates. In addition, as of September 30, 2009, $171,000 of interest was recorded on the ARS Loan.

Table of Contents

Comparison of the Nine Months Ended September 30, 2009 and 2008

Revenues

There were no revenues for the nine months ended September 30, 2009 or September 30, 2008.

Research and Development

Research and development expenses for the nine months ended September 30, 2009 were $8.2 million, a decrease of $3.6 million when compared to $11.8 million for the nine months ended September 30, 2008. This overall decrease in research and development expenses included a net increase of $0.2 million of costs associated with the development programs related to MN-221 for the treatment of acute exacerbations of asthma and COPD exacerbations, offset by a decrease of $2.2 million due to the completion of the two-year Phase II clinical trial for MN-166 for the treatment of MS, a decrease of $0.7 million related to MediciNova s development program for MN-029 for the treatment of solid tumors and a decrease of $0.9 million related to its other product development programs and unallocated R&D personnel time as MediciNova continued to primarily focus its resources on the clinical development program for MN-221 for the treatment of acute exacerbations of asthma and COPD exacerbations.

General and Administrative

General and administrative expenses were $6.9 million for the nine months ended September 30, 2009, a decrease of $0.1 million when compared to $7.0 million for the nine months ended September 30, 2008. This decrease in general and administrative expenses was due to a $0.3 million decrease each in corporate expenses related to bonus accrual and fees paid to external consultants, offset by an increase of $0.5 million in legal fees primarily due to the Merger.

Gain/Impairment Charge on Investment Securities and ARS Put

For the nine months ended September 30, 2009, MediciNova recorded a net gain of $0.2 million on MediciNova s ARS investment portfolio and the ARS Put based on fair value as determined by MediciNova s discounted cash flow models with liquidity discounts, as compared to an impairment charge of $3.3 million on MediciNova s ARS investment portfolio for the nine months ended September 30, 2008. The net gain was primarily a result of an increase of $0.7 million in the fair value of MediciNova s total ARS investment portfolio, offset by a decrease of $0.5 million in the fair value of the ARS Put.

Foreign Exchange Gain/Loss

For the nine months ended September 30, 2009, MediciNova recorded a foreign exchange loss of $2,000 due to the revaluation of its euro-denominated liability, as compared to a foreign exchange loss of $91,000 for the nine months ended September 30, 2008. The foreign exchange loss was due to the overall weakening of the U.S. dollar through September 30, 2009.

Interest Income, Net

Interest income, net consisted of income earned on MediciNova s cash and investment balances and totaled $0.5 million for the nine months ended September 30, 2009, a decrease of $1.2 million when compared to $1.7 million for the nine months ended September 30, 2008. The decrease was primarily due to a decrease in interest earned on MediciNova s cash and investment balances due to lower interest rates. In addition, for the nine months ended September 30, 2009, $0.2 million of interest was recorded on the ARS Loan.

Table of Contents

Results of Operations

Comparison of the Years ended December 31, 2008 and 2007

Revenues

There were no revenues for the year ended December 31, 2008 or December 31, 2007.

Research and Development

Research and development expenses for the year ended December 31, 2008 were $13.8 million, a decrease of $28.3 million when compared to $42.1 million for the year ended December 31, 2007. The decrease in research and development expenses primarily resulted from MediciNova s business decision to focus on the development of its two prioritized assets, MN-221 for the treatment of acute exacerbations of asthma and MN-166 for the treatment of MS. This decrease in research and development expenses primarily resulted from the following:

- a decrease of $14.4 million related to the termination of a Phase III clinical trial for MN-001 for the treatment of bronchial asthma;
- a decrease of $5.3 million related to the completion of the Phase II clinical trial for insomnia and the ceased further clinical development of MN-305 for the treatment of Generalized Anxiety Disorder/insomnia;
- a decrease of $6.1 million due to the completion of the two year Phase II clinical trial for MN-166 for the treatment of MS; and
- a decrease of $4.9 million related primarily to the completion of clinical trials for MN-029 for the treatment of solid tumors, MN-221 for the treatment of preterm labor and MN-246 for the treatment of urinary incontinence;

which decrease was offset primarily by a net increase of $2.4 million related to the conduct of Phase II clinical trials for MN-221 for the treatment of acute exacerbations of asthma.

General and Administrative

General and administrative expenses were $8.8 million for the year ended December 31, 2008, a decrease of $2.6 million when compared to $11.4 million for the year ended December 31, 2007. The decrease was primarily due to a $1.2 million decrease in stock-based compensation and a $1.4 million decrease related to reduced administrative headcount and fees paid to third-party consultants.

Impairment Charge, Net on Long-Term Investments and Long-Term Asset

For the year-ended December 31, 2008, MediciNova recorded a $7.1 million other-than-temporary write-down of the carrying value of its ARS based upon a discounted cash flow valuation analysis of its entire ARS portfolio conducted on a security-by-security basis, the outlook of the ARS market and MediciNova s expectation as to when MediciNova may be required to liquidate its ARS for operating purposes, which was offset by a gain of $5.8 million recognized on the ARS Put which is linked to certain of MediciNova s ARS.

Foreign Exchange Loss

At December 31, 2007, the conversion rate was approximately $1.30 U.S. dollars for each euro, which approximated the conversion rate at the time MediciNova entered into the contract with the CRO managing its Phase II clinical trial for MN-166 for the treatment of MS which was completed in the second quarter of 2008. At December 31, 2008, the conversion rate was approximately $1.41 U.S. dollars for each euro, and MediciNova reduced the accrued liability related to this clinical research contract based on reconciliations performed through year end. This resulted in a $100,000 foreign exchange loss related to the revaluation of MediciNova s euro-denominated liability for the year ended December 31, 2008.

166

Table of Contents

Interest Income

Interest income primarily consisted of income earned on MediciNova s cash and investment balances and totaled $2.0 million for the year ended December 31, 2008, a decrease of $2.6 million when compared to $4.6 million for the year ended December 31, 2007. The decrease was due to a decrease in MediciNova s investment balances and overall lower yields on its investments due to the economic recession.

Comparison of the Years Ended December 31, 2007 and 2006

Revenues

There were no revenues for the year ended December 31, 2007, a decrease of $300,000 when compared to $300,000 for the year ended December 31, 2006. The decrease in revenues was due to a lack of activity under MediciNova s master services agreement with Argenes, Inc., which was terminated in June 2007.

Research and Development

Research and development expenses for the year ended December 31, 2007 were $42.1 million, an increase of $9.9 million when compared to $32.2 million for the year ended December 31, 2006. The increase in research and development expenses was primarily due to:

- an increase of $8.4 million related to the advancement and subsequent termination of a Phase III clinical trial for MN-001 for the treatment of bronchial asthma;
- an increase of $4.7 million related to the completion of a Phase II clinical trial for MN-305 for the treatment of insomnia;
- an increase of $3.4 million in MediciNova s prioritized drug development program for MN-221 for the treatment of acute exacerbations of asthma primarily related to the advancement of a Phase II clinical trial and market research;
- an increase of $1.6 million in MediciNova s prioritized drug development program for MN-166 for the treatment of MS primarily related to preclinical studies, manufacturing of drug, market research and consulting services;
- an increase of $0.7 in MediciNova s other drug development programs and unallocated research and development expenditures; and
- an increase of $0.4 million in stock based compensation;

which increase was offset by $9.3 million related to the completion of clinical trials related to the product development programs for MN-029 for the treatment of solid tumors, MN-305 for the treatment of Generalized Anxiety Disorder, MN-001 for the treatment of IC and MN-246 for the treatment of urinary incontinence.

General and Administrative

General and administrative expenses were $11.4 million for the year ended December 31, 2007, an increase of $1.8 million when compared to $9.6 million for the year ended December 31, 2006. The increase in general and administrative expenses was primarily due to:

- an increase of $1.4 million of stock-based compensation expense; and

an increase of $1.1 million in compensation-related expenses due to salaries and severance payments;

which increase was offset by a decrease of $0.4 million in legal fees and a decrease of $0.3 million in financial advisor and other fees.

Interest Income

Interest income primarily consisted of income earned on MediciNova s cash and investment balances. Interest income decreased $1.4 million to $4.6 million for the year ended December 31, 2007 from $6.0 million for the year ended December 31, 2006. The decrease in interest income was primarily due to decreased investment balances and lower rates of return on its investments.

Table of Contents

Since MediciNova s inception, MediciNova has primarily financed its operations through the private placement of its equity securities, the public sale of its common stock and the exercise of founders warrants, net of treasury stock repurchases. Through September 30, 2009, MediciNova received estimated net proceeds of $201.4 million from the sale of equity securities, the exercise of warrants and stock options and employee stock purchases.

Liquidity and Capital Resources

At September 30, 2009, MediciNova had $37.2 million in cash, cash equivalents, investment securities and the ARS Put, net of the ARS Loan, as compared to $49.1 million of cash, cash equivalents, investment securities and the ARS Put at December 31, 2008, which decrease of $11.9 million is primarily a result of MediciNova s operating loss during the nine months ended September 30, 2009. At September 30, 2009, $21.7 million of MediciNova s ARS consisted primarily of government-guaranteed student loan securities and $2.2 million of its ARS consisted of private placement securities. None of the underlying collateral for MediciNova s ARS consisted of subprime mortgages or collateralized debt obligations. Based on MediciNova s discounted cash flow models, its total investment securities consisting of ARS, which were designated as trading securities, increased in fair value overall and resulted in the recording of a gain of $0.4 million in MediciNova s consolidated statement of operations to increase their carrying value for the three months ended September 30, 2009. In addition, MediciNova also recorded an impairment charge of $0.3 million on the ARS Put to reduce its carrying value for the three months ended September 30, 2009.

In August 2008, UBS, the brokerage firm through which MediciNova purchased the majority of its ARS investments, entered into a settlement with the SEC, the New York Attorney General and other state agencies. Under the settlement, UBS issued to MediciNova the ARS Rights Offer. Pursuant to the ARS Rights Offer, MediciNova received the ARS Put. As part of the settlement, UBS also offered to MediciNova the ARS Loan, whereby MediciNova would be able to borrow up to 75 percent of the market value, as determined by UBS at its sole discretion, of MediciNova s ARS that have been pledged as collateral at an interest cost that would not exceed the interest being paid on the underlying ARS investments. Under the ARS Loan program, UBS may demand full or partial payment of the ARS Loan, at its sole option and without cause, at any time. If at any time UBS exercises its right to terminate the credit line agreement governing the ARS Loan, then UBS is required to provide, as soon as reasonably possible, alternative financing on substantially the same terms and conditions as those under the credit line agreement and the agreement will remain in full force and effect until such time as such alternative financing has been established. In January 2009, MediciNova was approved for the ARS Loan in the amount of $15.9 million and drew down the entire preapproved amount. In addition, in February 2009, MediciNova borrowed an additional $2.2 million under the ARS Loan, bringing the total amount outstanding under the ARS Loan to $18.1 million, following UBS decision to increase MediciNova s availability under the ARS Loan. All cash received under the ARS Loan was invested in money market accounts. In addition, during the three months and nine months ended September 30, 2009, $0.2 million and $0.3 million, respectively, of MediciNova s current investment securities was redeemed at par value, with the proceeds being used to pay down the outstanding amount of the ARS Loan.

MediciNova elected to measure the ARS Put under the fair value option of SFAS 159 to mitigate the volatility in reported earnings due to the direct linkage between certain of its ARS and the ARS Put. The fair value of the ARS Put was also determined by using a discounted cash flow valuation model with assumptions related to interest rate, maturity and liquidity. For the three months ended September 30, 2009, based on MediciNova s discounted cash flow valuation, MediciNova recorded an impairment charge of approximately $0.3 million in its consolidated statement of operations due to a decrease in the carrying value of the ARS Put to $5.3 million.

The fair value of MediciNova s ARS and the ARS Put are based in part on management s estimates and assumptions. In the event of actual market exchanges, if any, these assumptions may prove materially different from those assumed in MediciNova s valuation models and amounts may be materially different than MediciNova s estimates. For example, in MediciNova s models, a reduction of the expected term to redemption

Table of Contents

by two years for its ARS portfolio yielded a net increase in valuation of its ARS of $1.6 million and an increase in expected term to redemption by two years for its ARS portfolio yielded a decrease in valuation of its ARS of $1.5 million. Other factors that may impact the valuation of its ARS and the ARS Put include changes to the credit quality of the underlying assets, discount rates, counterparty risk and the condition of the overall credit market.

MediciNova will continue to monitor closely its ARS, as the liquidity of such securities could impact MediciNova s ability to fund its operations if it is unable to liquidate such securities, otherwise unable to obtain capital to fund its operations or UBS demands full or partial payment of the ARS Loan and does not timely provide MediciNova with alternative financing on substantially the same terms. In the event that the credit crisis continues or worsens and the ARS market remains illiquid, MediciNova may not be able to recover the full value of its ARS investments should it determine it is necessary to liquidate any such securities. Further, in such event, MediciNova may not be able to borrow the maximum available amount under the ARS Loan or, if MediciNova has borrowed the maximum available amount, maintain such loan outstanding.

Net cash used in operating activities decreased to $12.5 million for the nine months ended September 30, 2009 from $17.3 million for the nine months ended September 30, 2008. The decrease was primarily due to a reduction in spending on research and development due to the completion of the Phase II clinical trial for MN-166 in the second quarter of 2008.

A summary of net cash provided by operating activities from MediciNova s consolidated statement of cash flows for fiscal years ended December 31, 2008, 2007 and 2006 is as follows (in millions):

	Years Ended December 31		
	2008	2007	2006
Net cash used in operating activities	$ (21.1)	$ (43.9)	$ (34.1)

Net cash used in operating activities was due to the net loss incurred during the years ended December 31, 2008, 2007 and 2006.

Net cash provided by investing activities was approximately $0.8 million for the nine months ended September 30, 2009, as compared to $21.6 million provided by investing activities for the nine months ended September 30, 2008. The decrease was primarily due to the illiquidity of the ARS market.

A summary of net cash provided by investing activities from MediciNova s consolidated statement of cash flows for fiscal years ended December 31, 2008, 2007 and 2006 is as follows (in millions):

	Years Ended December 31		
	2008	2007	2006
Net cash provided by investing activities	$ 21.6	$ 43.6	$ 5.8

Net cash provided by investing activities was primarily due to the net maturity of investment securities during the years ended December 31, 2008, 2007 and 2006.

Net cash provided by financing activities was $18.1 million for the nine months ended September 30, 2009, as compared to less than $100,000 for the nine months ended September 30, 2008. This increase was due to the net amount borrowed under the ARS Loan.

A summary of net cash provided by (used in) financing activities from MediciNova s consolidated statement of cash flows for fiscal years ended December 31, 2008, 2007 and 2006 is as follows (in millions):

	Years Ended December 31		
	2008	2007	2006
Net cash provided by (used in) financing activities	$ 0.1	$ 10.7	$ (1.1)

Table of Contents

Net cash provided by financing activities during the years ended December 31, 2008 and 2007 was due to employee stock purchases and a public offering, respectively. Cash used in financing activities during the year ended December 31, 2006 was primarily due to the purchase of treasury stock.

MediciNova has consumed substantial amounts of capital since its inception. MediciNova does not have any material commitments for capital expenditures and MediciNova s current cash, cash equivalents and the ARS Loan are its principal sources of liquidity. MediciNova s future uses and capital requirements will depend on, and could increase significantly as a result of, many factors, including the following:

- progress of its clinical trials and other research and development activities, including expenses to support the clinical development of MN-221 for the treatment of acute exacerbations of asthma and COPD exacerbations and milestone payments that may become payable to Kissei Pharmaceutical based on the progress of such product development program;
- its ability to establish and maintain strategic collaborations, including licensing and other arrangements;
- the scope, prioritization and number of its product development programs;
- the time and costs involved in obtaining regulatory approvals;
- the costs involved in filing, prosecuting, enforcing and defending patent claims and other intellectual property rights;
- the costs of securing manufacturing arrangements for clinical and commercial production of its product candidates;
- the costs of establishing sales and marketing capabilities and commercialization activities if MediciNova obtains regulatory clearances to market its product candidates; and
- the extent to which MediciNova may in-license, acquire or invest in other indications, products, technologies and businesses.

Until MediciNova can generate significant continuing revenues, MediciNova expects to satisfy its future cash needs through strategic collaborations, private or public sales of its securities, debt financings or licensing transactions, involving all or a portion of its product candidates, to the extent MediciNova is able to do so. MediciNova may not be successful in obtaining strategic collaboration agreements or in receiving milestone or royalty payments under such agreements. MediciNova cannot be certain that additional sources of capital will be available to MediciNova on acceptable terms, or at all. If sources of capital are not available, MediciNova may not be in a position to pursue present or future business opportunities that require financial commitments, and MediciNova may be required to delay, reduce the scope of or terminate one or more of its product development programs, curtail its efforts to acquire new product candidates or relinquish some or even all rights to product candidates. Failure to obtain adequate financing also may adversely affect MediciNova s ability to operate as a going concern.

Table of Contents

Other Significant Cash and Contractual Obligations

The following summarizes MediciNova s scheduled long-term contractual obligations that will affect MediciNova s future liquidity as of December 31, 2008 (in thousands):

		Payment Due By Period			
Contractual Obligations	**Total**	**Less than 1 Year**	**1-3 Years**	**3-5 Years**	**More than 5 Years**
Operating leases	$ 1,522	$ 559	$ 962	$	$
License obligations (1)					
Total (2)	$ 1,522	$ 559	$ 962	$	$

(1) Under the license agreements for MediciNova s product candidates, MediciNova may be required to make future payments based upon the occurrence of certain milestones related to clinical development, regulatory or commercial events. MediciNova will also be required to pay royalties on any net sales of the licensed products, if any are approved by the FDA or foreign regulatory authorities for commercial sale. These milestone payments and royalty payments under MediciNova license agreements are not included in the table above because MediciNova cannot determine when, or if, the related milestones will be achieved or the events triggering the commencement of payment obligations will occur at present.

(2) MediciNova also enters into agreements with third parties to conduct its clinical trials, manufacture its product candidates, perform data collection and analysis and other services in connection with its product development programs. MediciNova s payment obligations under these agreements depend upon the progress of its product development programs. Therefore, MediciNova is unable at this time to estimate with certainty the future costs it will incur under these agreements.

Off-Balance Sheet Arrangements

MediciNova does not have any off-balance sheet arrangements.

Table of Contents

MEDICINOVA S QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market and Interest Rate Risk

MediciNova s primary exposure to market risk due to changes in interest rates relates primarily to the increase or decrease in the amount of interest income MediciNova can earn on its investment portfolio. The primary objective of its investment activities is to preserve principal while at the same time maximizing the income it receives without significantly increasing risk. MediciNova s risk associated with fluctuating interest rates is limited to its investments in interest rate sensitive financial instruments. Under MediciNova s current policies, it does not use interest rate derivative instruments to manage exposure to interest rate changes. MediciNova mitigates default risk by investing in investment grade securities. A hypothetical 100 basis point adverse move in interest rates along the entire interest rate yield curve would not materially affect the fair value of MediciNova s interest sensitive financial instruments due to their relatively short term nature. Declines in interest rates over time will, however, reduce MediciNova s interest income, while increases in interest rates over time will increase interest income.

MediciNova s investment securities consist entirely of ARS, and MediciNova has an ARS Put. All of MediciNova s ARS had AAA ratings at the time of purchase, were originally designated as available-for-sale and principally represent interests in municipal bonds, government-guaranteed student loans, insurance notes and portfolios of securities (primarily commercial paper). None of the underlying collateral for its ARS consisted of subprime mortgages or collateralized debt obligations. At September 30, 2009, $21.7 million of its ARS consisted primarily of municipal bonds and government-guaranteed student loan securities and $2.2 million of its ARS consisted of private placement securities.

The negative conditions in the global credit markets have prevented most investors, including MediciNova, from liquidating certain holdings of ARS because the amount of securities submitted for sale has exceeded the amount of purchase orders for the securities. If there is insufficient demand for the securities at the time of the Dutch auction, the auction may not be completed and the interest rates may be reset to the maximum interest rate applicable to the specific securities being auctioned as per the official statement issued at the initial bond sale. When auctions for these securities fail, as they did throughout 2008 and during the first half of 2009, the investments may not be readily convertible to cash until a future auction of these investments is successful, they are redeemed, repurchased or sold through a secondary market, or they mature. Because of the lack of a primary or secondary ARS market, MediciNova designated all of its ARS as trading securities at December 31, 2008. At September 30, 2009, MediciNova continued to designate all of its ARS as trading securities. In addition, during the three months ended September 30, 2009, $200,000 of MediciNova s ARS was redeemed at par value, with the proceeds used to pay down the outstanding balance of the ARS Loan. At September 30, 2009, the ARS Loan balance was $17.7 million. Under the ARS Loan program, UBS may demand full or partial payment of the ARS Loan, at its sole option and without cause, at any time; however, the ARS Loan would remain in full force and effect until such time that UBS provided alternative financing at substantially the same terms. All cash received under the ARS Loan was invested in money market accounts. Because the interest to be paid on the ARS Loan will not exceed the interest that is received on the ARS pledged as security for the ARS Loan and which are held in the collateral account, MediciNova does not believe that this arrangement subjects it to additional interest rate risk.

Foreign Currency Rate Fluctuations

MediciNova was exposed to foreign currency exchange rate risk with respect to the Phase II clinical trial for MN-166 for the treatment of MS, which completed in Eastern Europe in the second quarter of 2008. As of September 30, 2009, MediciNova remained in the process of finalizing its reconciliation for this study with the CRO who supported MediciNova in conducting this study. MediciNova does not hedge its currency exchange rate risk; therefore, it is exposed to the fluctuations in the value of the U.S. dollar against the euro. The effects of changes in exchange rates between the U.S. dollar and euro denominated transactions are recorded as foreign currency transaction gain (loss) as a separate component of net loss. At September 30, 2009, a hypothetical 100 basis point change in the exchange rate would not have a material impact on MediciNova s consolidated financial statements.

Table of Contents

AVIGEN S MANAGEMENT S DISCUSSION AND ANALYSIS OF

FINANCIAL CONDITION AND RESULTS OF OPERATION

The following discussion and analysis of financial condition and results of operations should be read together with the sections of this joint proxy statement/prospectus entitled Avigen s Business beginning on page 149, Risk Factors beginning on page 22 and Selected Historical Financial Data of Avigen beginning on page 19, and Avigen s financial statements and accompanying notes appearing elsewhere in this joint proxy statement/prospectus. This discussion of Avigen s financial condition and results of operations contains certain statements that are not strictly historical and are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 and involve a high degree of risk and uncertainty. Actual results may differ materially from those projected in the forward-looking statements due to other risks and uncertainties that exist in Avigen s operations, the clinical development process and business environment, including those set forth in the section titled Risk Factors beginning on page 22 of this joint proxy statement/prospectus and the other risks and uncertainties described elsewhere in this joint proxy statement/prospectus. All forward-looking statements included in this joint proxy statement/prospectus are based on information available to Avigen as of the date hereof, and Avigen assumes no obligation to update any such forward-looking statement.

Proposed Merger with MediciNova

Avigen has effectively ceased all business operations related to the development of its product candidates to focus its efforts on the completion of the Merger with MediciNova. Following the completion of the Merger, the current management and board of directors of Avigen will have no control over the ultimate decisions regarding the combined company s operations and business, including whether the combined company will elect to dispose of Avigen s product candidates in a strategic transaction, reinitiate their development, abandon them entirely or any combination of the foregoing. Most of Avigen s financial condition and result of operations described below relates to Avigen s current product candidates and related matters, and will only be relevant if the combined company attempts to continue to develop Avigen s product candidates, which it may never do. If Avigen is unable to complete the Merger, it does not expect to be able to continue its operations and may be required to liquidate in a voluntary dissolution.

Because of the pending Merger with MediciNova, Avigen believes its historical operating results are not indicative of future results. Avigen encourages you to review the sections entitled, MediciNova s Business and MediciNova s Management s Discussion and Analysis of Financial Condition and Results of Operations appearing elsewhere in this joint proxy statement/prospectus for a description of the substantial portion of the expected business and operations and financial condition of the combined company if the Merger Agreement is adopted and the Merger is completed.

Overview

Avigen is a biopharmaceutical company that has focused on identifying and developing differentiated products to treat patients with serious disorders. Avigen s strategy was to conceive or acquire and develop opportunities that represent a positive return to Avigen stockholders. Avigen s current potential product is AV411, a glial attenuator, for neuropathic pain and opioid withdrawal and methamphetamine addiction.

Prior to October 2008, Avigen had been developing a product candidate, AV650, for the treatment of spasticity associated with MS. In that month, Avigen announced that top-line data from a Phase 2b clinical trial of AV650 did not achieve statistical significance on its primary endpoint or most secondary endpoints. There were no safety issues. Avigen believes that the trial was adequately powered and all statistical parameters were in line with expectations. Based on these results, Avigen terminated the AV650 program and initiated a restructuring to immediately reduce its expenses and preserve its remaining financial resources in order to evaluate other strategic opportunities. The restructuring included a significant staff reduction and closure of portions of Avigen s leased facilities in November 2008.

Table of Contents

In December 2008, Avigen completed a sale of its early-stage AV513 program for $7.2 million to Baxter Healthcare Corporation. Avigen also expanded its efforts to monetize its AV411 program for neuropathic pain and addiction. While Avigen currently maintains an ongoing NIDA-funded Phase 1b/2a trials for AV411 in opioid withdrawal and methamphetamine relapse, Avigen does not intend to initiate Phase 2 clinical trials for neuropathic pain or other indications.

In January 2009, Avigen initiated an orderly and competitive process to review merger and acquisition opportunities. Avigen believed that the strength of its financial position would allow Avigen to enter into a favorable merger and acquisition transaction and lead to increased value for its stockholders. During the quarter ended March 31, 2009, Avigen s board of directors was engaged in a proxy fight initiated by Avigen s largest stockholder which resulted in a Special Meeting of Stockholders. On March 27, 2009, Avigen stockholders rejected a proposal to remove the current members of the board of directors; however, Avigen s board of directors believed it was no longer prudent to continue its strategic review process and abandoned strategic merger discussions and announced its intention to develop a plan of dissolution that would maximize the liquidation value of Avigen. In connection with this action, Avigen s board of directors determined that the company no longer needed to retain the services of a majority of its employees that were supporting strategic discussions and Avigen reduced its headcount accordingly, including three officers of the company. As a result, Avigen incurred obligations to pay severance benefits to qualified employees under the Avigen, Inc. Management Transition Plan, including salary continuation payments and health benefits continuation. For the three months ended March 31, 2009, Avigen recognized a severance expense of approximately $2.1 million. In addition, under the terms of the Management Transition Plan, outstanding unvested stock options held by terminated employees were subject to accelerated vesting conditions and an increase in the post termination exercise period causing Avigen to recognize a non-cash, share-based compensation charge of approximately $0.2 million for the three months ended March 31, 2009. No expenses related to this plan were recorded during the three months ended June 30, 2009 or September 30, 2009. On August 20, 2009, Avigen entered into the Merger Agreement with MediciNova.

In May 2006, Avigen completed a private placement of common stock with institutional investors for gross proceeds of $21.2 million. Under the terms of the transaction Avigen sold approximately 3.9 million shares of common stock at a purchase price of $5.37 per share. The transaction did not include any warrants or other enhancements.

In April 2007, Avigen completed an underwritten offering of its common stock with selected institutional investors. In May 2007, the underwriters exercised a 30-day option to purchase additional shares to cover over-allotments. In connection with this transaction, Avigen sold approximately 4.4 million shares of its common stock at a negotiated purchase price of $6.94 per share for total cash proceeds of $28.5 million, net of underwriter discounts and other issuance costs.

Avigen is a development stage company and has primarily supported the financial needs of its research and development activities since inception through public offerings and private placements of its equity securities. Avigen has not received any revenue from the commercial sale of its products in development, and Avigen does not anticipate generating revenue from the commercialization of AV411 in the foreseeable future. Currently Avigen has suspended development activities for AV411 for neuropathic pain but has continued its ongoing clinical development for AV411 for opioid addition and withdrawal which is being primarily funded by third-parties.

Critical Accounting Policies and Significant Judgments and Estimates

Avigen s financial statements have been prepared in accordance with GAAP. The preparation of these financial statements requires Avigen to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements as well as the reported revenues and expenses during the reporting periods. On an ongoing basis, Avigen

Table of Contents

evaluates its estimates and judgments related to revenue recognition, valuation of investments in financial instruments, impairment of property and equipment, asset retirement obligations, recognition of research and development expenses and stock-based compensation. Avigen bases its estimates on historical experience and on various other factors that it believes are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Avigen believes the accounting policies as disclosed in its Form 10-K are critical to the process of making significant judgments and estimates in the preparation of its financial statements. These policies have not changed from those presented in Avigen s Annual Report on Form 10-K for the period ended December 31, 2008, filed with the SEC on March 16, 2009 and amended on April 30, 2009.

Results of Operations

Comparison of the Three and Nine Months Ended September 30, 2009 and 2008

Research and development expenses

Historically, Avigen maintained a small staff level and subleased portions of its leased operating facilities to reduce overhead costs. In November 2008, Avigen completed a significant restructuring plan to further reduce infrastructure expenses including a reduction of Avigen s staff level by approximately 70 percent, and initiated a wind down of the remaining research and development activities associated with Avigen s potential products. This was intended to preserve Avigen s financial resources, minimize Avigen s exposure to fixed costs for staff and facilities and increase Avigen s control over the strategic timing and use of all of its resources. As a result of the staff reduction in March 2009, Avigen only has one employee associated with overseeing research and development activities of AV411 and related compounds.

Prior to the restructuring in November 2008, Avigen s research and development expenses can be divided into two primary functions: (1) costs to support research and preclinical development, and (2) costs to support preparation for and implementation of human clinical trials. Research and preclinical development costs include activities associated with general research and exploration, animal studies, non-clinical studies to support the design of human clinical trials, and in-house and independent third-party validation testing of potential acquisition or in-license drug candidates. Clinical development costs include activities associated with preparing for regulatory approvals, maintaining regulated and controlled processes, purchasing manufactured drug substances for use in human clinical trials, and supporting subject enrollment and subject administration within clinical trials.

The costs associated with these two primary functions of our research and development activities approximate the following (in thousands, except percentages):

	Three Months Ended September 30,		Percentage decrease over prior	Nine Months Ended September 30,		Percentage decrease over prior
	2009	2008	year	2009	2008	year
Research and preclinical development	$ 201	$ 2,309	(91)%	$ 1,604	$ 8,008	(80)%
Clinical development	25	3,369	(99)%	1,962	9,833	(80)%
Total research and development expenses	$ 226	$ 5,678	(96)%	$ 3,566	$ 17,841	(80)%

Because a significant percentage of Avigen s research and development resources contributed to multiple development programs, the majority of Avigen s costs were not directly attributed to individual development programs. Avigen based decisions regarding its project management and resource allocation primarily on interpretations of scientific data, rather than cost allocations. Avigen s estimates of costs between research and preclinical development and clinical development activities were primarily based on staffing roles within its research and development departments. As such, costs allocated to specific projects may not necessarily reflect

Table of Contents

the actual costs of those efforts and, therefore, Avigen does not generally evaluate actual costs-incurred information on a project-by-project basis. In addition, Avigen is unable to estimate the future costs to complete any specific projects.

Research and preclinical development

(In thousands, except percentages)	Three Months Ended September 30, 2009	Three Months Ended September 30, 2008	Percentage decrease over prior year	Nine Months Ended September 30, 2009	Nine Months Ended September 30, 2008	Percentage decrease over prior year
Personnel-related	$ 86	$ 493	(83)%	$ 414	$ 1,619	(74)%
Non-recurring severance				69		n/a
Share-based compensation	46	132	(65)%	177	417	(58)%
External research and development	58	1,072	(95)%	582	3,416	(83)%
Depreciation and amortization		141	(100)%		762	(100)%
Other expenses including facilities overhead	11	471	(98)%	362	1,794	(80)%
Total research and preclinical development expenses	$ 201	$ 2,309	(91)%	$ 1,604	$ 8,008	(80)%

The decrease in Avigen s total research and preclinical development expenses for the three-month period ended September 30, 2009, compared to the same period in 2008, of $2.1 million, was primarily due to changes in costs for the following:

- lower expenditures for external research and development services from third-party service providers of $1.0 million, primarily reflecting the wind down of external animal studies and other research and development activities for Avigen s drug development programs,
- lower other expenses including facilities overhead allocations of $460,000, reflecting the wind down of the use of internal research and development facilities with the offset of costs from expanded sublease recoveries or a reallocation of expenses to general and administrative expenses,
- lower personnel-related expenses of $407,000, due to lower staff levels, as a result of the significant staff reduction in November 2008 and subsequent reductions in March 2009, and
- lower depreciation and amortization expenses of $141,000, reflecting the end of the depreciable lives for equipment and leasehold improvements associated with Avigen s leased facility that expired in May 2008, and the impairment charges for leasehold improvements and equipment that Avigen recognized in December 2008.

The decrease in Avigen s total research and preclinical development expenses for the nine-month period ended September 30, 2009, compared to the same period in 2008, of $6.4 million, was primarily due to changes in costs for the following:

- lower expenditures for external research and development services from third-party service providers of $2.8 million, primarily reflecting the wind down of external animal studies and other research and development activities for Avigen s drug development programs,
- lower other expenses including facilities overhead allocations of $1.4 million, reflecting the wind down of the use of internal research and development facilities with the offset of costs from expanded sublease recoveries or a reallocation of expenses to

general and administrative expenses,

lower personnel-related expenses of $1.2 million, due to lower staff levels, as a result of the significant staff reduction in November 2008 and subsequent reductions in March 2009, and

lower depreciation and amortization expenses of $762,000, reflecting the end of the depreciable lives for equipment and leasehold improvements associated with Avigen s leased facility that expired in May 2008, and the impairment charges for leasehold improvements and equipment that Avigen recognized in December 2008.

Table of Contents

Clinical development

(In thousands, except percentages)	Three Months Ended September 30, 2009	2008	Percentage decrease over prior Year	Nine Months Ended September 30, 2009	2008	Percentage increase (decrease) over prior Year
Personnel-related	$	$ 393	(100)%	$ 217	$ 1,329	(84)%
Non-recurring severance				443		n/a
Share-based compensation	4	32	(88)%	76	77	1%
External clinical development	21	2,816	(99)%	1,185	8,082	(85)%
Other expenses including facilities overhead		128	(100)%	41	345	(88)%
Total clinical development expenses	$ 25	$ 3,369	(99)%	$ 1,962	$ 9,833	(80)%

The decrease in Avigen s total clinical development expenses for the three-month period ended September 30, 2009, compared to the same period in 2008, of $3.3 million, was primarily due to changes in costs for the following:

- lower expenditures for external clinical development services from third-party suppliers of $2.8 million, primarily reflecting the termination and wind down of most of Avigen s clinical trials and other clinical drug development activities, and
- lower personnel-related expenses of $393,000, due to lower staff levels, as a result of the significant staff reduction in November 2008 and subsequent reductions in March 2009.

The decrease in Avigen s total clinical development expenses for the nine-month period ended September 30, 2009, compared to the same period in 2008, of $7.9 million, was primarily due to changes in costs for the following:

- lower expenditures for external clinical development services from third-party suppliers of $6.9 million, primarily reflecting the termination and wind down of most of Avigen s clinical trials and other clinical drug development activities, and
- lower personnel-related expenses of $1.1 million, due to lower staff levels, as a result of the significant staff reduction in November 2008 and subsequent reductions in March 2009,

partially offset by,

- non-recurring severance expenses of $443,000 recorded in connection with staff reductions in March 2009.

Avigen expects its total research and development spending for the fourth quarter of 2009 not to exceed the expense levels from the three months ended September 30, 2009 as Avigen seeks stockholder approval of the definitive agreement to merge Avigen with a wholly-owned subsidiary of MediciNova.

General and administrative expenses

(In thousands, except percentages)	Three Months Ended September 30, 2009	2008	Percentage increase (decrease) over prior Year	Nine Months Ended September 30, 2009	2008	Percentage increase (decrease) over prior Year
Personnel-related	$ 85	$ 570	(85)%	$ 702	$ 2,134	(67)%
Non-recurring severance				1,631		n/a
Share-based compensation	100	382	(74)%	611	1,213	(50)%
Legal and professional fees	871	263	231%	2,970	946	214%
Facilities, depreciation and other allocated expenses	710	633	12%	2,266	2,105	8%
Total general and administrative expenses	$ 1,766	$ 1,848	(4)%	$ 8,180	$ 6,398	28%

Table of Contents

The decrease in Avigen s total general and administrative expenses for the three-month period ended September 30, 2009, compared to the same period in 2008, of $82,000, was primarily due to changes in costs for the following:

- lower personnel-related expenses of $485,000, due to lower staff levels, as a result of significant staff reductions in November 2008 and March 2009, and
- lower non-cash expenses of $282,000 for recognition of share-based compensation in compliance with ASC 718,

partially offset by,

- higher legal and professional fees of $608,000, primarily due to higher legal and advisory expenses associated with our negotiations and entry into a definitive merger agreement with MediciNova, preparations of related SEC proxy filings, and defense against a class action lawsuit brought in connection with the proposed Merger.

The increase in Avigen s total general and administrative expenses for the nine-month period ended September 30, 2009, compared to the same period in 2008, of $1.8 million, was primarily due to changes in costs for the following:

- higher legal and professional fees of $2.0 million, primarily due to higher legal and advisory expenses associated with Avigen s response to a proxy fight and unsolicited tender offer and Avigen s review of strategic merger and acquisition opportunities in the first quarter of 2009 and negotiations and entry into a definitive merger agreement with MediciNova, and defense against a class action lawsuit brought in connection with the proposed Merger in the third quarter of 2009, and
- non-recurring severance expenses of $1.6 million recorded in connection with staff reductions in March 2009,

partially offset by,

- lower personnel-related expenses of $1.4 million, due to lower staff levels, as a result of significant staff reductions in November 2008 and March 2009, and
- lower non-cash expenses of $602,000 for recognition of share-based compensation in compliance with ASC 718.

Total general and administrative expenses for the nine months ended September 30, 2009 exceeded management s original expectations due to the significant legal and other costs incurred in connection with responding to the proxy fight and hostile tender offer during the first quarter of 2009 and completing negotiations and defending against the class action lawsuit in connection with the definitive merger agreement entered into with MediciNova during the third quarter of 2009. Avigen expects to incur lower legal and professional fees for the remainder of the fiscal year while Avigen seeks stockholder approval of the definitive agreement to merge Avigen with a wholly-owned subsidiary of MediciNova.

Impairment loss related to long-lived assets

	Three Months Ended September 30,		Percentage decrease over prior	Nine Months Ended September 30,		Percentage decrease over prior
(In thousands, except percentages)	**2009**	**2008**	**year**	**2009**	**2008**	**year**
Impairment loss related to long-lived assets	$ 0	$ 0	n/a	$ 0	$ (274)	n/a

The credit recorded to impairment loss related to long-lived assets for the nine-month period ended September 30, 2008, reflects the gain of $274,000 recorded in connection with the settlement of Avigen s asset retirement obligation related to Avigen s building lease for an amount below the carrying value of the accrued liability.

Table of Contents

In-license fees

(In thousands, except percentages)	Three Months Ended September 30, 2009	2008	Percentage decrease over prior year	Nine Months Ended September 30, 2009	2008	Percentage decrease over prior year
In-license fees	$ 0	$ 2,500	n/a	$ 0	$ 2,500	n/a

In-license fees for the three and nine months ended September 30, 2008 represent amounts paid to Sanochemia Pharmazeutika AG (Sanochemia) upon the timely achievement of a development-based milestone for the development of a proprietary, purer form of AV650. There were no in-license fees incurred in 2009.

During the fourth quarter of 2008, Avigen terminated its agreement with Sanochemia under which such in-license fees were incurred. As a result, Avigen does not expect to incur any future in-license fees associated with this agreement.

Interest income

(In thousands, except percentages)	Three Months Ended September 30, 2009	2008	Percentage decrease over prior year	Nine Months Ended September 30, 2009	2008	Percentage decrease over prior year
Interest income	$ 316	$ 594	(47)%	$ 1,115	$ 2,289	(51)%

Almost all of Avigen s interest income is generated from Avigen s investments in high-grade marketable securities of government and corporate debt. The decrease in interest for the three and nine months ended September 30, 2009, as compared to the same periods in 2008, were primarily due to the decrease in Avigen s outstanding interest-bearing cash and securities balances, due to the use of such resources to fund Avigen s on-going operations and repay $7.0 million of bank borrowings in March 2009, as well as a general decline in market interest rates.

As of September 30, 2009, in order to increase the liquidity of Avigen s investment portfolio, Avigen sold all of its outstanding available-for-sale marketable securities and invested all of its excess funds in money market funds or cash accounts. As a result, Avigen expects its interest income for the fourth quarter of 2009 to be significantly below the amount earned for the three months ended September 30, 2009.

Sublease income

(In thousands, except percentages)	Three Months Ended September 30, 2009	2008	Percentage decrease over prior year	Nine Months Ended September 30, 2009	2008	Percentage decrease over prior year
Sublease income	$ 232	$ 97	139%	$ 594	$ 270	120%

In February 2009, Avigen entered into an additional sublease agreement, subsequently amended and expanded in September 2009, that increased the total amount of its leased facilities under sublease agreements to 33,555 square feet, or approximately 50%. Remaining contractual sublease income of $1.1 million is expected to be recognized ratably over the remaining terms of the sublease agreements, which expire in November 2010.

Comparison of the Years Ended December 31, 2008, 2007 and 2006

Revenue

(In thousands, except percentages)	Year Ended December 31, 2008	2007	2006
Revenue	$ 7,100	$	$ 103

Table of Contents

Revenue in 2008 reflected income from the sale of the rights to Avigen s early stage blood coagulation compound, AV513, to Baxter. Avigen recognized no revenue in 2007. Revenue for 2006 represented income from Avigen s participation with the University of Colorado on a grant that was funded by the National Institutes of Health.

Research and Development Expenses

Historically, Avigen maintained a small staff level and subleased portions of its leased operating facilities to reduce overhead costs. In November 2008, Avigen completed a significant restructuring plan to further reduce infrastructure expenses including a reduction of its staff level by approximately 70 percent and initiated a wind down of the remaining research and development activities associated with Avigen s potential products. This was intended to preserve Avigen s financial resources, minimize exposure to fixed costs for staff and facilities and increase control over the strategic timing and use of all of Avigen s resources.

Prior to the restructuring in November 2008, Avigen s research and development expenses can be divided into two primary functions: (1) costs to support research and preclinical development and (2) costs to support preparation for and implementation of human clinical trials. Research and preclinical development costs include activities associated with general research and exploration, animal studies, non-clinical studies to support the design of human clinical trials, and in-house and independent third-party validation testing of potential acquisition or in-license drug candidates. Clinical development costs include activities associated with preparing for regulatory approvals, maintaining regulated and controlled processes, purchasing manufactured drug substances for use in human clinical trials, and supporting subject enrollment and subject administration within clinical trials.

At December 31, 2008, the number of Avigen s staff overseeing research and development activities associated with AV411 and related compounds, was four, compared to the number of staff Avigen employed in connection with all research and development activities at December 31, 2007 and 2006 of 23 and 21, respectively.

The costs associated with these two primary functions of Avigen s research and development activities during the last three years approximate the following (in thousands, except percentages):

	Year Ended December 31,		Percentage (decrease) increase 2008 over 2007	Year Ended December 31,	Percentage increase 2007 over 2006
	2008	2007		2006	
Research and preclinical development	$ 10,177	$ 11,004	(8)%	$ 10,454	5%
Clinical development	13,430	9,577	40%	4,765	101%
Total research and development expenses	$ 23,607	$ 20,681	14%	$ 15,219	36%

During these years, because a significant percentage of Avigen s research and development resources contributed to multiple development programs, the majority of Avigen s costs were not directly attributed to individual development programs. Avigen based decisions regarding its project management and resource allocation primarily on interpretations of scientific data, rather than cost allocations. Avigen s estimates of costs between research and preclinical development and clinical development activities were primarily based on staffing roles within its research and development departments. As such, costs allocated to specific projects may not necessarily reflect the actual costs of those efforts and, therefore, Avigen does not generally evaluate actual costs-incurred information on a project-by-project basis. In addition, Avigen is unable to estimate the future costs to complete any specific projects.

Table of Contents

Research and preclinical development

Avigen has reclassified some prior period amounts within research and preclinical, clinical development and general and administrative expenses to conform to Avigen s current period s presentation. The reclassifications had no impact on Avigen s financial condition, results of operations, or the net cash flow from operating activities reported on Avigen s statement of cash flow.

(In thousands, except percentages)	Year Ended December 31, 2008	2007	Percentage (decrease) 2008 over 2007	Year Ended December 31, 2006	Percentage increase (decrease) 2007 over 2006
Personnel-related	$ 1,957	$ 1,977	(1)%	$ 1,891	5%
Share-based compensation	516	522	(1)%	382	37%
Severance	682		n/a		n/a
External research and development	4,131	4,346	(5)%	3,954	10%
Depreciation	579	1,454	(60)%	1,075	35%
Other expenses including facilities overhead	2,312	2,805	(18)%	3,152	(11)%
Total research and preclinical development expenses	$ 10,177	$ 11,104	(8)%	$ 10,454	6%

Comparison of Years Ended December 31, 2008 and 2007. The decreases in Avigen s total research and preclinical development expenses for the year ended December 31, 2008, compared to 2007, of $927,000, were primarily due to changes in costs for the following:

- lower depreciation expenses of $875,000, reflecting the acceleration of depreciation expense in 2007 in connection with a change in estimate that shortened the depreciable life for approximately $2.7 million of leasehold improvements and other assets, and the fact that almost all of Avigen s other depreciable equipment had reached their original depreciable life early in 2008;
- lower facilities and other allocated expenses of $493,000, primarily due to reductions in overall facilities overhead; and
- lower expenditures for external research and development services from third-party service providers of $215,000, primarily reflecting a decrease in costs for external animal studies associated with AV411 and AV650,

partially offset by,

- severance expenses recorded in 2008 of $682,000, primarily related to the severance expense accrued in connection with the staff reduction in November 2008.

Comparison of Years Ended December 31, 2007 and 2006. The increases in Avigen s total research and preclinical development expenses for the year ended December 31, 2007, compared to 2006, of $651,000, were primarily due to changes in costs for the following:

- higher expenditures for external research and development services from third-party service providers of $392,000, primarily reflecting an increase in costs for required long-term safety studies for AV650 and research and development activities of AV411 Analogs and AV513, partially offset by a decrease in the level of external animal studies associated with AV411, as the program transitioned into the clinical development phase in late 2006; and

higher depreciation expenses of $379,000, as a result of the December 31, 2006 decrease in estimated depreciable life of some leasehold improvements,

partially offset by,

lower facilities and other allocated expenses of $346,000, primarily due to lower facilities overhead.

Table of Contents

Clinical development

(In thousands, except percentages)	Year Ended December 31, 2008	2007	Percentage increase (decrease) 2008 over 2007	Year Ended December 31, 2006	Percentage increase 2007 over 2006
Personnel-related	$ 1,648	$ 1,457	13%	$ 1,357	7%
Share-based compensation	110	170	(35)%	169	1%
Severance	478		n/a		n/a
External clinical development	10,596	7,374	44%	2,819	162%
Other expenses including facilities overhead	598	576	4%	420	37%
Total clinical development expenses	$ 13,430	$ 9,577	40%	$ 4,765	101%

Comparison of Years Ended December 31, 2008 and 2007. The increase in Avigen s total clinical development expenses for the year ended December 31, 2008, compared to 2007, of $3.9 million, was primarily due to changes in costs for the following:

higher expenditures for external clinical development services from third-party suppliers of $3.2 million, primarily reflecting the higher level of spending in 2008 for services from third-party suppliers associated with Avigen s clinical trials and drug manufacturing support for AV650;

severance expenses recorded in 2008 of $478,000, primarily related to the severance expense accrued in connection with the staff reduction in November 2008; and

higher personnel-related expenses of $191,000, reflecting higher average salaries in 2008, partially offset by lower staff level.

Comparison of Years Ended December 31, 2007 and 2006. The increase in Avigen s total clinical development expenses for the year ended December 31, 2007, compared to 2006, of $4.8 million, was primarily due to changes in costs for the following:

higher expenditures for external clinical development services from third-party suppliers of $4.6 million, associated with the ongoing support of Avigen s clinical trials for AV650 and AV411, compared to costs related to the preparation and initiation of clinical trials for AV650 and AV411 in 2006; and

higher personnel-related expenses of $100,000, reflecting slightly higher staff level and higher average salaries in 2007.

Total research and development expenses for 2008 were within management s expectations. In October 2008, Avigen announced that the top-line data from Avigen s AV650 trial for the treatment of spasticity in patients with MS did not meet its primary endpoint. As a result, Avigen discontinued all AV650-related activities and expenses. In addition, Avigen announced a significant restructuring and staff reduction aimed at preserving cash and reassessing strategic opportunities.

General and Administrative Expenses

	Year Ended December 31,	Percentage (decrease)	Year Ended	Percentage (decrease)

(In thousands, except percentages)	2008	2007	increase 2008 over 2007	December 31, 2006	increase 2007 over 2006
Personnel-related	$ 2,693	$ 3,013	(11)%	$ 3,166	(5)%
Share-based compensation	1,577	1,234	28%	944	31%
Severance	352		n/a	288	(100)%
Legal and professional fees	1,440	1,246	16%	1,194	4%
Facilities, depreciation and other allocated expenses	2,634	3,140	(16)%	3,268	(4)%
Total general and administrative expenses	$ 8,696	$ 8,633	1%	$ 8,860	(3)%

Table of Contents

Comparison of the Years Ended December 31, 2008 and 2007. The increase of $63,000 in Avigen s general and administrative expenses in 2008, compared to 2007, was primarily due to changes in costs for the following:

- severance expenses recorded in 2008 of $352,000, primarily related to the severance expense accrued in connection with the staff reduction in November 2008;
- higher non-cash expenses of $343,000, for the recognition of share-based compensation in compliance with FAS 123(R); and
- higher legal and professional fees of $194,000, primarily due to higher legal services associated with due-diligence and contract-related matters,

partially offset by,

- lower facilities, depreciation and other allocated expenses of $506,000, due to decrease in costs associated with recruiting additional members to Avigen s board of directors and the reduction of rent and other overhead expenses associated with Avigen s leased facility that expired in May 2008; and
- lower personnel-related expenses of $320,000, reflecting lower bonus expense accrued in 2008, partially offset by higher average salaries in 2008.

Comparison of the Years Ended December 31, 2007 and 2006. The decrease of $227,000 in Avigen s general and administrative expenses in 2007, compared to 2006, was primarily due to changes in costs for the following:

- $288,000 lower severance expenses largely associated with the resignation of an executive in January 2006;
- $153,000 lower personnel-related expenses, reflecting a slightly lower average staff level in 2007, partially offset by higher average salaries in 2007; and
- $128,000 lower facilities, depreciation and other allocated expenses, including costs associated with public relation activities,

partially offset by,

- higher non-cash expenses of $290,000, for the recognition of share-based compensation in compliance with FAS 123(R).

Impairment Loss Related to Long-Lived Assets

	Year Ended December 31,		
(In thousands)	**2008**	**2007**	**2006**
Impairment loss related to long-lived assets	$ 139	$	$ 450

In connection with the settlement of its asset retirement obligation, Avigen reduced its liability for the asset retirement obligation in March 2008 by $274,000 with a corresponding credit to impairment loss related to long-lived assets. In December 2008, as a result of the termination of its AV650 program, Avigen ceased the use of its leased laboratory facilities and recorded an impairment charge of $413,000 to reduce the carrying

value of its leasehold improvements and laboratory equipment to zero. Net impairment losses for 2008 were $139,000.

In 2006, Avigen recognized a contingent asset retirement obligation associated with some leasehold improvements which Avigen determined to be impaired in 2005. Since the carrying value for these assets had been reduced to zero, the recognition of the liability resulted in an additional impairment loss related to long-lived assets in 2006.

Table of Contents

In-license Fees

	Year Ended December 31,		
(In thousands)	**2008**	**2007**	**2006**
In-license fees	$ 2,500	$	$ 3,000

In August 2008, Avigen paid Sanochemia Pharmazeutika AG, or Sanochemia, $2.5 million upon the timely achievement of a development-based milestone for the development of a proprietary, purer form of AV650. In October 2008, Avigen announced that the top-line data from its AV650 trial for the treatment of spasticity in patients with MS did not meet its primary endpoint. As a result, Avigen discontinued all AV650-related activities and notified Sanochemia in October 2008 of its intent to terminate the agreement under which such in-license fees were incurred. Avigen does not expect to incur any future in-license fees associated with this agreement. Avigen did not enter into any in-license agreements in 2008.

In January 2006, Avigen entered into a license agreement and paid Sanochemia a fee of $3.0 million as consideration for an exclusive license to develop and commercialize proprietary formulations of the compound tolperisone, which Avigen had named AV650, for the North American market.

Interest Expense

	Year Ended December 31,		
(In thousands, except percentages)	**2008**	**2007**	**2006**
Interest expense	$ 293	$ 488	$ 467
Percentage (decrease) increase over prior period	(40)%	4%	

The decrease in Avigen s interest expense between 2008 and 2007 reflects a lower loan payable level as a result of the repayment of $1.0 million to Avigen s outstanding borrowings at the end of the year in 2007, and a decrease in the average annual rate of interest charged during this period on Avigen s line of credit.

The increase in Avigen s interest expense between 2007 and 2006 reflects a rise in the average annual rate of interest charged during this period on Avigen s line of credit, which bears interest at a floating rate based on the London-Inter-Bank Offered Rate, and is reset in three- or six-month increments.

Interest Income

	Year Ended December 31,		
(In thousands, except percentages)	**2008**	**2007**	**2006**
Interest income	$ 2,784	$ 3,954	$ 3,002
Percentage (decrease) increase over prior period	(30)%	32%	

Almost all of Avigen s interest income is generated from its investments in high-grade marketable securities of government and corporate debt. The decrease in interest income between 2008 and 2007 was primarily due to the decrease in Avigen s outstanding interest-bearing cash and securities balances, due to the use of such resources to fund Avigen s on-going operations, as well as the general decline in market interest rates.

The increase in interest income between 2007 and 2006 primarily reflects the higher average outstanding balance of Avigen s total portfolio, including the $28.5 million net cash proceeds from the sale of Avigen common stock in connection with the underwritten offering in April 2007, as well as the impact of the increase in average yields earned on the portfolio. 2006 included the $19.4 million net cash proceeds from the private placement completed in May 2006.

Table of Contents

Sublease Income

(In thousands)	Year Ended December 31, 2008	2007	2006
Sublease income	$ 365	$ 703	$ 565

During 2008, Avigen subleased portions of its aggregate facilities in two buildings which totaled up to 31,750 square feet at any given time, to as many as four separate corporate tenants not affiliated with Avigen. In 2008, one tenant defaulted on sublease payments for 15,250 square feet that Avigen deemed to be uncollectible and therefore Avigen did not recognize any sublease income from that tenant in 2008. In addition, on May 31, 2008, a second tenant s sublease for approximately 2,100 square feet expired in connection with the expiration of Avigen s underlying building lease. As a result of these events, Avigen s total sublease income for 2008 decreased by $338,000, compared to 2007.

Recently Issued Accounting Standards

See Note 1, Unaudited Interim Financial Statements *Recent Accounting Pronouncements,* in the Notes to Condensed Financial Statements included in Avigen s Condensed Financial Statements for the Three and Nine Months Ended September 30, 2009 and 2008 (unaudited) in this joint proxy statement/prospectus for a discussion of recent accounting pronouncements and their effect, if any, on Avigen, which discussion is incorporated by reference here.

Deferred Income Tax Assets

In accordance with FAS 109, *Accounting for Income Taxes*, as codified by FASB ASC topic 740, *Income Taxes* (ASC 740), Avigen has calculated a deferred tax asset based on the potential future tax benefit Avigen may be able to realize in future periods as a result of the significant tax losses experienced since inception. The value of such deferred tax asset must be calculated using the tax rates expected to apply to the taxable income in the years in which such income occurs. Since Avigen has no history of earnings, and cannot reliably predict when Avigen might generate taxable income, if at all, Avigen has recorded a valuation allowance for the full amount of Avigen s deferred tax assets. Federal and state laws limit the use of net operating loss and tax credit carryforwards in certain situations where changes occur in the stock ownership of a company. In 2008 and 2007, Avigen conducted a Code Section 382 study and had reported its deferred tax assets related to net operating loss and research credit carryforwards after recognizing change of control limitations in 2008 and 2006. Utilization of Avigen s net operating loss and research and development credit carryforwards may still be subject to substantial annual limitations due to ownership change limitations after December 31, 2008.

Liquidity and Capital Resources

Since Avigen s inception in 1992, cash expenditures have significantly exceeded revenue. Avigen has funded its operations primarily through public offerings and private placements of its equity securities. Between May 1996, the date of Avigen s initial public offering, and September 30, 2009, Avigen raised $235.7 million from private placements and public offerings of Avigen common stock and warrants to purchase common stock.

In December 2008, Avigen received $7.1 million in cash proceeds from Baxter Healthcare Corporation in connection with the sale of the rights to Avigen s early stage blood coagulation compound, AV513.

In April 2007, Avigen sold 4.4 million shares of its common stock in an underwritten offering to selected institutional investors for total net cash proceeds of $28.5 million after deducting underwriter discounts and other issuance costs of $2.1 million.

Table of Contents

In May 2006, Avigen completed a private placement of common stock with institutional investors, raising approximately $19.4 million in net cash proceeds. The transaction represented the sale of approximately 3.9 million shares of common stock at a purchase price of $5.37 per share. There were no warrants or other enhancements included in the transaction.

In addition to funding operations through sales of its common stock, Avigen received payments of $12.0 million in December 2005 and $7.1 million in December 2008 from the assignment of most of Avigen s gene therapy assets to Genzyme and the sale of Avigen s AV513 program to Baxter, respectively.

Avigen has attempted to contain costs and reduce cash flow by renting facilities, subleasing facilities no longer critical to future operations, contracting with third parties to conduct research and development and using consultants, where appropriate. In November 2008, Avigen completed a significant restructuring and staff reduction intended to reduce future expenses and preserve financial resources. During the nine months ended September 30, 2009, Avigen incurred significant legal and advisory fees in connection with its response to a proxy fight and unsolicited tender offer and its review of strategic merger and acquisition opportunities prior to March 31, 2009 and subsequent negotiations of and entry into the definitive merger agreement with MediciNova, as well as the defense of the associated class action lawsuit. Avigen expects to incur additional expenses in connection with presenting the proposed MediciNova merger to stockholders for approval, but does not intend to initiate Phase 2 clinical trials for AV411 for neuropathic pain or other indications. As a result, Avigen expects expenses for the fourth quarter of 2009 to approximate the levels of spending during the three-months ended September 30, 2009, and full-year 2009 expenses to be significantly below the spending levels of recent fiscal years which included higher levels of research and development activities.

At September 30, 2009, Avigen had cash, cash equivalents and restricted cash and investments, of approximately $39.9 million, compared to approximately $56.8 million at December 31, 2008. In March 2009 Avigen repaid the $7.0 million of outstanding borrowings under its credit facility, which accounted for more than 40 percent of this reduction. At September 30, 2009, Avigen reported approximately $2.9 million of restricted cash and investments in current assets associated with monies placed in a trust account in connection with severance obligations under Avigen s Management Transition Plan. At September 30, 2009 and December 2008, Avigen reported $2.0 million of restricted cash and investments with non-current assets which represents the portion of Avigen s investment portfolio pledged as collateral to secure a letter of credit which serves as the security deposit on a building lease that expires November 2010. Also at December 31, 2008, Avigen reported restricted cash and investments with current assets of $7.0 million representing the portion of Avigen s investment portfolio pledged as collateral for outstanding borrowings against its credit facility. These outstanding bank borrowings were fully repaid in March 2009 and the corresponding restricted investments reduced. Avigen does not consider its restricted cash and investments a current source of additional liquidity.

As of September 30, 2009, Avigen s commitments under building leases, net of scheduled cost recoveries under sublease agreements, were significantly lower than net commitments reported as of December 31, 2008 due to the additional sublease agreement entered into and expanded during 2009. As of September 30, 2009, Avigen had net future minimum commitments under non-cancellable building leases totaling approximately $816,000, payable in varying amounts through November 2010 (See Note 7 of Notes to Avigen s Condensed Financial Statements for the Three and Nine Months Ended September 30, 2009 and 2008 (unaudited) in this joint proxy statement/prospectus) compared to $2.5 million as of December 31, 2008.

Effective June 1, 2007, Avigen last amended the terms of its credit facility with Wells Fargo Bank in June 2007 to extend the repayment period on $8.0 million of outstanding borrowings until November 2009. Under the terms of the amendment, Avigen was able to make partial or full repayments of principal at any time; however, amounts repaid could not be re-borrowed during the remaining term of the credit facility. As of June 30, 2009, Avigen had repaid all the outstanding borrowings and is no longer able to borrow against the credit facility. For the fiscal years ended December 31, 2008 and 2007, the average annual rate of interest charged on the outstanding borrowings was approximately 2.50% and 5.81%, respectively.

Table of Contents

Under the terms of the 2007 amendment of the credit facility, Wells Fargo Bank will maintain Avigen s $2.0 million of currently outstanding standby letters of credit pursuant to the terms required under Avigen s building operating lease that expires in November 2010.

Avigen historically entered into commitments to fund collaborative research and clinical work performed by third parties. Since the termination of its AV650 program in October 2008 and the subsequent restructuring designed to preserve financial resources, Avigen took steps to cancel and not renew many of its outstanding agreements with third-parties. As of September 30, 2009, Avigen did not have any material contractual commitments to fund third-party research.

Operating Activities. Net cash used in operating activities was $9.7 million during the nine months ended September 30, 2009. Net cash used in operating activities during this period was primarily used to fund costs associated with Avigen s response to a proxy fight and hostile tender offer, winding down clinical research and development activities, including non-clinical studies and clinical trials performed by third parties, and legal and advisory fees associated with Avigen s review of strategic merger and acquisition opportunities, negotiating the definitive merger agreement with MediciNova, and defending the class action lawsuit in connection with the proposed MediciNova merger.

Net cash used for operating activities was $21.2 million for 2008 compared to $21.1 million for 2007. The 2008 and 2007 amounts were primarily used to support Avigen s clinical research and development activities, including non-clinical studies and clinical trials performed by third parties. The 2008 amount also includes payment of $2.5 million to Sanochemia upon the achievement of certain development-based milestones. The remainder of the cash Avigen used in operating activities for both years was primarily used to support internal research and development activities, and general and administrative expenses.

Net cash used for operating activities in 2006 was $20.4 million. The 2006 amount includes the payment of $3.0 million during the year to Sanochemia in connection with Avigen s in-license agreement for AV650. The increase in the amount of cash used in 2007 compared to 2006 is primarily due to higher expenditures to support Avigen s research and development activities in 2007, including preclinical studies and clinical trials performed by third parties.

The level of cash used in operating activities during 2008 and 2007 were in line with Avigen management s expectations.

Investing and Financing Activities. Net cash provided by investing activities and used in financing activities during the nine months ended September 30, 2009 was $42.3 million and $7.0 million, respectively. The cash provided by investing activities consisted primarily of sales of maturities of available-for-sale securities, net of purchases and a net decrease in restricted cash and investments of approximately $4.1 million. This reduction in restricted cash and investments resulted from the release of $7.0 million in collateral in connection with the repayment of Avigen s bank borrowings, partially offset by monies placed in an irrevocable grantor trust in connection with severance obligations under Avigen s Management Transition Plan, less subsequent distributions. The cash used in financing activities primarily represented the repayment of Avigen s outstanding bank borrowings.

Net cash provided by investing activities and financing activities in 2008 was $29.9 million and $261,000, respectively. Net cash used in investing activities and provided by financing activities in 2007 was $8.4 million and $28.1 million, respectively. The cash provided by or used in investing activities in 2008 and 2007 consisted primarily of maturities of available-for-sale securities, net of purchases. The cash provided by financing activities in 2008 and 2007 consisted primarily of proceeds from the issuance of common stock in connection with the underwritten offering in 2007 and the exercise of stock options during both years.

Net cash used in investing and provided by financing activities in 2006 was $9.7 million and $20.4 million, respectively. The cash used in investing activities consisted primarily of sales and maturities of available-for-sale

Table of Contents

securities, net of purchases. Net cash provided by financing activities consisted of proceeds from the private placement of Avigen common stock to institutional investors in May 2006 and the exercise of stock options during the year.

The timing of and amounts realized from the exercise of previously issued stock options and warrants are determined by the decisions of the respective option and warrant holders, and are not controlled by Avigen. Therefore, funds received from exercises of stock options and warrants in past periods should not be considered an indication of additional funds to be received in future periods.

The following are contractual commitments at December 31, 2008 associated with debt obligations, lease obligations and contractual commitments to fund third-party research (in thousands):

		Payments Due by Period		
Contractual Commitment	**Total**	**Less than 1 year**	**1-3 years**	**4-5 years**
Operating leases	$ 3,240	$ 1,697	$ 1,543	$
Credit facility	7,000	7,000		
Research funding for third-parties	1,800	1,800		
Total	$ 12,040	$ 10,497	$ 1,543	$

As of September 30, 2009, Avigen s contractual commitments associated with future minimum lease obligations under non-cancelable facilities operating leases, net of sublease income, are as follows (in thousands):

	Minimum Lease Commitments	**Sublease Income**	**Net Lease Commitments**
Year ending December 31:			
2009	$ 410	$ (239)	$ 171
2010	1,543	(898)	645
2011			
2012			
2013 and thereafter			
Total	$ 1,953	$ (1,137)	$ 816

Off-Balance Sheet Arrangements

At September 30, 2009, Avigen did not have any off-balance sheet arrangements or relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purposes entities, which are typically established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Table of Contents

AVIGEN S QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Avigen s exposure to market rate risk for changes in interest rates relates primarily to its investment portfolio and historically, to its long-term debt. Avigen does not hold derivative financial investments, derivative commodity investments or other financial investments or engage in foreign currency hedging or other transactions that expose it to other market risks. None of Avigen s investments are held for trading purposes. Avigen s investment objectives historically have been focused on preservation of principal and liquidity. By policy, Avigen has managed its exposure to market risks by limiting investments to high quality issuers and highly liquid instruments with effective maturities of less than five years and an average aggregate portfolio duration of between one and three years. As of September 30, 2009, in order to increase the liquidity of Avigen s investment portfolio, Avigen sold all of its outstanding available-for-sale marketable securities and invested all of its excess funds in money market funds or cash accounts. Avigen s entire portfolio is classified as available-for-sale and, as of December 31, 2008 and 2007, consisted of approximately 98% fixed-rate securities and did not include any holdings of auction rate securities.

Avigen has evaluated the risk associated with its portfolios of investments in marketable securities and has deemed this market risk to be immaterial. If market interest rates were to increase by 100 basis points, or 1%, from their September 30, 2009 levels, Avigen estimates that the fair value of its securities portfolio would be unaffected compared to its estimated exposure of $341,000 at December 31, 2008, primarily due to the reduction in size of Avigen s overall investment portfolio. The modeling technique used measures duration risk sensitivity to estimate the potential change in fair value arising from an immediate hypothetical shift in market rates and quantifies the ending fair market value including principal and accrued interest.

As of December 31, 2008, Avigen s long-term debt included $7.0 million in borrowings under Avigen s credit facility that expires in November 2009. Interest charged on the borrowing was based on a fluctuating rate below the Prime Rate in effect from time to time. As of December 31, 2008, the average annual rate of interest charged on the borrowings was approximately 2.50% compared to 5.81% as of December 31, 2007. As of September 30, 2009, Avigen did not have any outstanding borrowings under the credit facility.

Table of Contents

MEDICINOVA MANAGEMENT

Directors

The following table sets forth certain information, as of the date of this joint proxy statement/prospectus, regarding each of MediciNova s current directors.

Name	Served as Director Since	Age	Principal Business Experience
Jeff Himawan, Ph.D.	2006	44	*Jeff Himawan, Ph.D.* has served as a director since January 2006 and became Chairman of the Board of Directors in March 2007. Dr. Himawan is a Managing Director of Essex Woodlands Health Ventures, L.P., which he joined in 2001. Essex Woodlands Health Ventures and its affiliates own approximately ten percent of outstanding MediciNova common stock. Prior to joining Essex Woodlands Health Ventures, Dr. Himawan was Managing Director and Co-founder of Seed-One Ventures, LLC. Prior to Seed-One Ventures, he was a scientist in academic and industrial settings. Dr. Himawan holds a B.S. in biology from the Massachusetts Institute of Technology and a Ph.D. in biological chemistry and molecular pharmacology from Harvard University.
Alan W. Dunton, M.D.	2006	55	*Alan W. Dunton, M.D.* has served as a director since May 2006 and a consultant since June 2009 under the terms of a contract between MediciNova and Danerius, LLC. Dr. Dunton is a recognized expert in prescription drug development and clinical research. His twenty years of experience are marked by the development and approval of the prescription drugs Levaquin (antibiotic), TOPAMAX (epilepsy), Reminyl (Alzheimer s disease), Regranex (diabetic foot ulcers), Risperdal (antipsychotic) as well as the successful over-the-counter product Aleve (arthritis). Dr. Dunton became Chief Executive Officer of Panacos Pharmaceuticals, Inc. in January 2007, and also serves as Director. Since January 2006, he has been a consulting principal at Danerius, LLC, which currently provides consulting services to MediciNova relating to MediciNova s product development programs. Prior to that time, Dr. Dunton was President and Chief Executive Officer of Metaphore Pharmaceuticals, Inc. from February 2003 until Metaphore Pharmaceuticals merged with ActivBiotics Inc. in December 2005. In 2002, Dr. Dunton served as president, chief operating officer and a director of Emisphere Technologies, Inc., a biopharmaceutical company. Before joining Emisphere, Dr. Dunton was the President and Managing Director of the Janssen Research Foundation, a Johnson & Johnson company. In this capacity, he was responsible for the research and development of new prescription drug products marketed by the Johnson & Johnson family of companies worldwide. He was a member of the Group

Table of Contents

Name	Served as Director Since	Age	Principal Business Experience
			Operating Committee of the J&J Pharmaceutical Group, a member of the Board of Janssen Pharmaceutica, N.V. and Chairman of Janssen-Cilag, International. His experiences also included positions with F. Hoffman-La Roche, Ltd., or Roche, Ciba-Geigy Ltd. (now Novartis AG) and Laboratorios Syntex SA (now Roche). Dr. Dunton also developed and implemented an Ethical Code for the Conduct of Clinical Research and was a recipient of the prestigious Nellie Westerman Prize from the American Federation of Clinical Research for his work in medical ethics. He is also a director of Targacept, Inc., a Nasdaq-listed biopharmaceutical company. Dr. Dunton received his M.D. degree from New York University School of Medicine and completed his post-graduate training in Internal Medicine at the New York University Medical Center/Bellevue Hospital VA Medical Center and in Clinical Pharmacology at Cornell University Medical College/New York Hospital.
Yuichi Iwaki, M.D., Ph.D.	2000	60	*Yuichi Iwaki, M.D., Ph.D.* is MediciNova s founder and served as the chairman of the Board of Directors from its inception in September 2000 to March 2007, becoming Executive Chairman in July 2005, Acting Chief Executive Officer as of September 2005 and President and Chief Executive Officer as of March 2006. From September 2001 until January 2007, Dr. Iwaki also served as a consultant to MediciNova in connection with financing transactions and business development activities. He holds three professorships at the University of Southern California School of Medicine in the Departments of Urology, Surgery and Pathology and has been Director of the Transplantation Immunology and Immunogenetic Laboratory since 1992. Dr. Iwaki is also a visiting professor at the Nihon University School of Medicine and Kyushu University. Prior to joining the faculty at the University of Southern California School of Medicine, Dr. Iwaki held professorships at the University of Pittsburgh School of Medicine in the Departments of Surgery and Pathology from 1989 through 1991. Dr. Iwaki received both his M.D. and Ph.D. degrees from Sapporo Medical School in Sapporo, Japan. Dr. Iwaki is the author of more than 200 peer-reviewed publications and more than 40 book chapters. Dr. Iwaki has been advising pharmaceutical companies and venture capital funds regarding research and investment strategies for over 25 years and serves on the board of directors of several biotechnology companies.
Arlene Morris	2006	57	*Arlene Morris* has served as a director since May 2006. Ms. Morris brings significant expertise in the establishment of strategic partnerships, marketing and operations to MediciNova. Ms. Morris was appointed

Table of Contents

Name	Served as Director Since	Age	Principal Business Experience
			President and Chief Executive Officer of Affymax, Inc., a Nasdaq-listed biotechnology company, in June 2003 and continues to serve in such capacities. From 2001 to 2003, she served as the President and Chief Executive Officer of Clearview Projects, Inc. Prior to that, Ms. Morris served from 1996 to 2001 as the Senior Vice President, Business Development for Coulter Pharmaceutical Inc. Previously, she was the Vice President of Business Development at Scios, Inc. from 1993 to 1996, where she completed several high profile transactions, including one of the first biotech profit-sharing deals for a late-stage product. From 1977 through 1993, Ms. Morris held various management and executive positions at Johnson & Johnson in sales, marketing, new product development and business development, holding the position of Vice President of Business Development for McNeil Pharmaceutical from 1988 to 1993. She received her B.A. degree in Biology and Chemistry from Carlow College and studied marketing at Western New England College. Ms. Morris also serves on the board of directors of BIO, the Biotechnology Industry Organization, Phenomix Corporation and Affymax, Inc.
Hideki Nagao	2004	53	*Hideki Nagao* has served as a director since September 2004. Since 1980, Mr. Nagao has been employed by the Development Bank of Japan. Mr. Nagao is currently Senior Advisor, Department of Corporate Finance, Division 3, at the Development Bank of Japan. Mr. Nagao has a degree from the Faculty of Law of Tokyo University.
John K.A. Prendergast, Ph.D.	2004	55	*John K.A. Prendergast, Ph.D.* has served as a director since September 2004. Since 1993, Dr. Prendergast has served as President of SummerCloud Bay Inc., an independent consulting firm providing services to the biotechnology industry. Dr. Prendergast is a co-founder and director of Avigen, where currently he is chairman of the audit, governance and compensation committees. He is a co-founder and currently serves as chairman of the board of directors of Palatin Technologies, Inc., an NYSE Amex-listed biopharmaceutical company. He is also currently serving as chairman of the board of directors of AVAX Technologies, Inc., an over-the-counter traded biotechnology company, and as the executive chairman of the board of directors and chief executive officer of Antyra, Inc., a privately held biopharmaceutical company. Dr. Prendergast received B.Sc., M.Sc. and Ph.D. degrees from the University of New South Wales, Sydney, Australia and a C.S.S. in Administration and Management from Harvard University.

Table of Contents

Name	Served as Director Since	Age	Principal Business Experience
Hiroaki Shigeta	2009	67	*Hiroaki Shigeta* has served as a director since September 2009. Mr. Shigeta has served as a director of The Medicines Company, a company listed on The NASDAQ Stock Market, Inc., since April 2007. Mr. Shigeta served as a consultant to The Medicines Company from July 2006 to December 2007. From January 2005 until June 2006, he served as a consultant to various Japanese pharmaceutical companies. From October 1993 to December 2004, Mr. Shigeta served in a variety of senior management positions with Hoffman-La Roche, Inc. and its affiliates. From January 2003 to December 2004, Mr. Shigeta was the U.S. Head, Far East Relations of Hoffman-La Roche and from June 2002 to April 2003, he was a Member of the Board of Chugai Seiyaku KK, Tokyo, a majority-owned affiliate of Roche Holding of Switzerland. From January 2001 to May 2002, Mr. Shigeta served as Chairman and Representative Director of Nippon Roche KK, a pharmaceutical company and a Japanese affiliate of Roche Holding of Switzerland. From October 1993 to December 2000, Mr. Shigeta was the President and Chief Executive Officer of Nippon Roche KK. Mr. Shigeta received a B.A. in economics from Momoyama Gakuin University in Osaka, Japan and a B.Sc from Haas Business School, University of California at Berkeley.

Table of Contents

Executive Officers

The following table sets forth certain information, as of the date of this joint proxy statement/prospectus, regarding each of MediciNova s executive officers who is not also currently serving as a director of MediciNova. These individuals are expected to be executive officers of the combined company following completion of the Merger.

Name	Position	Age	Principal Business Experience
Shintaro Asako, CPA	Vice President, Chief Financial Officer	35	Shintaro Asako was appointed as Chief Financial Officer in November 2006. Mr. Asako served as Vice President, Accounting and Administration from November 2005 to November 2006. He served as Vice President, Accounting and Financial Reporting from July 2005 to October 2005. From October 2004 to July 2005, Mr. Asako was an audit senior manager at KPMG LLP, where he provided a variety of audit and business consulting services to multinational clients and industries including pharmaceutical, manufacturing, distribution and freight-forwarding and transportation. Mr. Asako was also responsible for the development and expansion of KPMG s Japanese practice in the Orange County and San Diego areas. Prior to becoming audit senior manager, he held the positions of supervisory senior auditor from June 2002 to March 2003 and audit manager from April 2003 to September 2004. Before joining KPMG, he spent four years with Arthur Andersen LLP providing audit and tax advisory services. Mr. Asako is a graduate of the Leventhal School of Accounting at the University of Southern California. Mr. Asako is a certified public accountant of the state of California and a member of the American Institute of Certified Public Accountants.
Masatsune Okajima	Vice President and Head of Japanese Office	41	Masatsune Okajima was appointed as Vice President and Head of Japanese Office in September 2006. Prior to joining MediciNova he served as Deputy General Manager at Daiwa Securities SMBC Co., Ltd. since 2002. From 1999 through 2002, Mr. Okajima served as Manager, Daiwa Securities SB Capital Markets Co., Ltd. (now Daiwa Securities SMBC Co., Ltd.). From 1996 to 1999, Mr. Okajima served as Manager, Sumitomo Capital Securities Co., Ltd. and between 1991 and 1996 Mr. Okajima served in various positions at Sumitomo Bank, Ltd. (now Mitsui Sumitomo Bank). Mr. Okajima received a B.S. degree from the Department of Science and Technology, Tokyo Science University.

Table of Contents

CORPORATE GOVERNANCE

Director Independence

MediciNova s board of directors believes that a majority of its members should consist of independent directors. The board of directors also believes that it is useful and appropriate to have one or more members of management, including the President and Chief Executive Officer, serve as directors. MediciNova s board of directors has determined that each of Dr. Himawan, Dr. Dunton, Ms. Morris, Mr. Nagao and Dr. Prendergast is an independent director as defined by Nasdaq Marketplace Rule 5605(a)(2). The board of directors has also determined that each of the members of MediciNova s Audit Committee is independent for purposes of Rule 10A-3 under the Exchange Act and Nasdaq Marketplace Rule 5605(c)(2).

Compensation Committee Interlocks and Insider Participation

Dr. Prendergast and Mr. Nagao have served as members of the Compensation Committee since such committee was formed in September 2004 in anticipation of MediciNova s initial public offering. Ms. Morris has served as a member of the Compensation Committee since her election to the board of directors in May 2006. No member of the Compensation Committee at any time has been one of MediciNova s officers or employees. No interlocking relationship exists, or has existed in the past, between the board of directors or Compensation Committee and the board of directors or compensation committee of any other entity.

Table of Contents

COMPENSATION DISCUSSION AND ANALYSIS

Overview of Compensation Program

MediciNova s compensation program is designed to reward the achievement of corporate and individual objectives. These objectives focus on building a sustainable business that develops differentiated drugs to improve the health and quality of life of patients and creates value for MediciNova stockholders. This Compensation Discussion and Analysis provides a narrative overview of MediciNova s executive compensation philosophy, programs and policies. It is intended to highlight significant information relating to MediciNova s executive compensation programs and includes analysis of the compensation earned by the executive officers who will lead MediciNova following completion of the Merger, all of which is qualified by the terms of the employment agreements and other compensation plans and arrangements that MediciNova has filed with the SEC. The executive officers that are expected to lead MediciNova following completion of the Merger are: Yuichi Iwaki, M.D., Ph.D., President and Chief Executive Officer; Shintaro Asako, CPA, Vice President and Chief Financial Officer; and Masatsune Okajima, Vice President and Head of Japanese Office.

The Compensation Committee presently consists of three independent directors. The Compensation Committee is responsible for developing and monitoring compensation arrangements for MediciNova s executive officers, administering MediciNova s stock award plans and other compensation plans and performing other activities and functions related to executive compensation as may be assigned from time to time by the board of directors.

MediciNova s compensation program is designed to attract, retain and reward executive officers and other key employees who contribute to its long-term success and to motivate those individuals to enhance long-term stockholder value. It is intended to reward the achievement of specific operating goals from year to year and of strategic goals over several years, and it rewards responses to MediciNova s business challenges and opportunities which will increase the value of its stock over the long term. The evaluation of whether and to what extent the performance criteria are met by each of the executive officers in any given year is ultimately determined solely by the Compensation Committee.

Compensation Philosophy and Objectives

The Compensation Committee believes that compensation of MediciNova s executive officers should encourage creation of stockholder value and achievement of strategic corporate objectives. It is the Compensation Committee s philosophy to align the interests of MediciNova stockholders and management by integrating compensation with its annual and long-term corporate strategic and financial objectives. Consequently, a significant portion of executive officer compensation is at risk and depends upon MediciNova s corporate performance as well as each individual executive s performance against performance criteria established annually. In addition, to further enhance stockholder value and promote alignment with stockholder interests, MediciNova s compensation program includes a significant equity-based component. In order to attract and retain the most qualified personnel, MediciNova intends to offer a total compensation package competitive with companies in the biotechnology and pharmaceutical industries, taking into account relative company size, performance and geographic location as well as individual responsibilities and performance. MediciNova targets base salary and overall compensation at the 25th to 75th percentile of companies in its peer group, although individual variances may occur depending on an executive officer s experience, responsibilities and performance. MediciNova believes its compensation is competitive with that paid by companies in its peer group.

MediciNova generally intends to qualify executive compensation for deductibility without limitation under Section 162(m) of the Code. Section 162(m) provides that, for purposes of the regular income tax and the alternative minimum tax, the otherwise allowable deduction for compensation paid or accrued with respect to a covered employee of a publicly-held corporation (other than certain exempt performance-based compensation) is

Table of Contents

limited to no more than $1.0 million per year. MediciNova does not expect that the non-exempt compensation to be paid to any of its executive officers for fiscal 2009 as calculated for purposes of Section 162(m) will exceed the $1.0 million annual limit.

Use of Compensation Consultants

In 2007 and 2008, the Compensation Committee engaged Compensia, Inc., or Compensia, to provide third-party data to assist the Compensation Committee in its formulation of compensation strategy for executive officers. Compensia provided reports to the Compensation Committee in 2007 and 2008, each of which outlined data compiled by Compensia from the Radford Global Life Sciences Compensation Survey, the Biotech Employee Development Coalition Survey and Compensia-identified peer company proxy filings. For purposes of its 2008 compensation determinations, MediciNova s peer company group consisted of 14 biotechnology companies with clinical development programs in at least Phase II development. These 14 companies were: ACADIA Pharmaceuticals Inc.; Adventrx Pharmaceuticals, Inc.; Alexza Pharmaceuticals, Inc.; Anesiva, Inc.; Cardium Therapeutics, Inc.; Hollis-Eden Pharmaceuticals, Inc.; La Jolla Pharmaceutical Company; Metabasis Therapeutics, Inc.; Somaxon Pharmaceuticals, Inc.; Sunesis Pharmaceuticals, Inc.; Telik, Inc.; Threshold Pharmaceuticals, Inc.; Titan Pharmaceuticals, Inc.; and Trubion Pharmaceuticals, Inc. The data included comparable base cash compensation, incentive cash compensation and equity awards. While the Compensation Committee did not base its compensation decisions on such report, its 2008 compensation determinations were informed by the data presented by Compensia. The Compensation Committee has the sole authority to establish the nature and scope of engagement of any compensation consultant, to approve the payment of fees to any such consultant and to terminate any consultant s engagement.

Roles of Executives in Establishing Compensation

The Compensation Committee meets regularly to consider all major elements of compensation, including the design and implementation of compensation and benefits programs. Dr. Iwaki and Mr. Asako generally attend Compensation Committee meetings by invitation but are excused for executive sessions. At the Compensation Committee s request, Dr. Iwaki makes recommendations to the Compensation Committee concerning the salary, bonus and equity compensation to be granted to its other executive officers. The Compensation Committee may approve, modify or disapprove any of the recommendations made by Dr. Iwaki. The Compensation Committee determines the compensation (including bonus and option grants, if any) of Dr. Iwaki using the same criteria as for the other executive officers.

Elements of Executive Compensation and Employment Agreements

The elements of compensation for executive officers are base salary, annual cash incentives, long-term equity incentives and additional benefits, some of which are available to most other employees, including a 401(k) plan, health and welfare insurance, and life insurance, some of which allocate payments generally based on an individual s level of annual cash compensation. In the case of Mr. Okajima, MediciNova pays a benefits adjustment of approximately $15,000 each year, equally divided monthly and contributes 50 percent of the premium costs for certain insurance, unemployment, pension and welfare programs, as required by Japanese law. Executive officers have substantial portions of their compensation at risk for annual and long-term performance, with the largest portion at risk for the most senior executive officers. In 2008, MediciNova did not provide any material perquisites or personal benefits to its executive officers.

Each of MediciNova s executive officers is party to an employment agreement that provides for an initial base salary that is subject to annual adjustment by an amount mutually agreed by the board of directors and the executive officer. Each of these agreements also provides that the executive officer may receive incentive bonuses at the discretion of the board of directors. Pursuant to these agreements, each executive officer is required to devote his entire business time, attention, energies, skills, learning and best efforts to further MediciNova s interests and may not engage in any outside activities that compete in any way with MediciNova s

Table of Contents

business. Following termination of employment of an executive officer, other than Mr. Okajima, with MediciNova, the company also has the option to engage such executive officer as a consultant on a quarterly basis. Compensation for each quarter of consulting services would be equal to 15 percent of the executive officer s annual base salary.

Executive Officer Base Salary

The Compensation Committee reviews salaries recommended by the Chief Executive Officer for executive officers other than the Chief Executive Officer and, based upon such review, approves salaries and bonus payments for such executive officers. The Compensation Committee sets the salary level of each executive officer on a case-by-case basis, taking into account both the individual s level of responsibilities and performance as well as MediciNova s performance as a whole. The Compensation Committee also considers market information and the base salaries and other incentive compensation paid to executive officers of other similarly sized companies within the drug development sector.

The employment agreement with each executive officer sets an initial annual base salary, which was competitive in MediciNova s industry given the executive s experience and qualifications at the time MediciNova entered into the agreement. The Compensation Committee annually reviews each executive officer s base salary and takes into consideration during this annual review a variety of factors, including:

- individual and corporate performance;
- levels of responsibility;
- prior experience;
- breadth of knowledge of the industry;
- inflation and increases in cost of living; and
- competitive pay practices.

Based upon this analysis undertaken in January 2009, the Compensation Committee determined to increase the salaries of the MediciNova s current executive officers, effective January 1, 2009, as follows:

- Dr. Iwaki s 2009 base salary is $473,488, a 2.0 percent increase from his 2008 base salary.
- Mr. Asako s 2009 base salary is $243,296, a 3.0 percent increase from his 2008 base salary.
- Mr. Okajima s 2009 base salary is $248,585, a 3.0 percent increase from his 2008 base salary.

These 2009 increases were based primarily on increased levels of responsibility, inflation and increases in cost of living and were within the range of increases granted to executive officers at similarly situated biotechnology companies based on the west coast.

Executive Officer Bonuses

The Compensation Committee believes that a portion of each executive officer s compensation should be contingent upon (1) MediciNova s performance in meeting corporate and financial objectives and (2) the individual s contribution to MediciNova s performance. Bonuses paid related to 2008 performance and were determined on a case-by-case basis. For officers other than the Chief Executive Officer, the Compensation Committee evaluated each executive officer with the Chief Executive Officer to determine the bonus for the fiscal year, which was based on individual and corporate performance, taking into account economic and industry conditions. The Compensation Committee approved the executive officer bonuses in each instance.

In January 2008, the Compensation Committee set the target bonus awards as a percentage of annual base salary. For Dr. Iwaki, the maximum bonus was set at 50 percent of base salary; for Mr. Asako, the maximum bonus was set at 35 percent of base salary; and for Mr. Okajima, the maximum bonus was set at 35 percent of base salary. Company objectives for the 2008 fiscal year were as follows:

successfully meeting financial and budgetary goals;

Table of Contents

successfully completing clinical trials for the company s two prioritized product candidates;

entering into a strategic collaboration for MN-166; and

expanding MediciNova s investor base.

These goals were stretch goals set above corporate expectations for the 2008 fiscal year and accordingly challenging to meet. The goals were not weighted equally with approximately 30 percent of the total weight being attributed to meeting financial and budgetary goals, entering into a strategic collaboration for MN-166 and expansion of MediciNova s investor base and approximately 70 percent of the total weight being attributed to the completion of clinical trials. The Compensation Committee concluded that MediciNova satisfied 60 percent of its company objectives in 2008.

Dr. Iwaki s individual objectives for fiscal 2008 were the same as the company objectives. In the case of Mr. Asako, the company objectives had 70 percent weight and his individual objectives had 30 percent weight in determining bonuses for fiscal 2008. The weighting was 50 percent for company objectives and 50 percent for individual objectives for Mr. Okajima. The individual objectives for each executive officer generally are related to integral job functions associated with each executive position, and MediciNova believes they are critical to implementation of its strategic goals.

Based upon this analysis undertaken in January 2009, the Compensation Committee determined to award cash bonuses in the following amounts to MediciNova s current executive officers:

Dr. Iwaki was awarded a bonus of $139,261, all of which was awarded for 60 percent satisfaction of company objectives.

Mr. Asako was awarded a bonus of $50,224, representing $34,723 for 60 percent satisfaction of company objectives and $15,501 for satisfaction of approximately 63 percent of individual objectives.

Mr. Okajima was awarded a bonus of $45,755, representing $25,341 for 60 percent satisfaction of company objectives and $20,414 for satisfaction of approximately 48 percent of individual objectives.

MediciNova s corporate objectives for fiscal 2009 include entering into a strategic collaboration for MN-166 and monetizing its non-prioritized product candidates, successfully meeting financial, cash and budgetary goals and expediting enrollment of subjects in the ongoing Phase II clinical trial for MN-221 for the treatment of acute exacerbations of asthma. Dr. Iwaki s individual objectives for fiscal 2009 are the same as MediciNova s corporate objectives. In the case of Mr. Asako, MediciNova s corporate objectives have 70 percent weight and his individual objectives have 30 percent weight in determining bonus eligibility for fiscal 2009. The weighting is 50 percent for company objectives and 50 percent for individual objectives for Mr. Okajima. The Compensation Committee will evaluate corporate and individual achievement of the objectives during fiscal 2009 in early 2010 and will determine bonus amounts, if any, based upon such evaluation.

Stock Awards

The Compensation Committee administers MediciNova s Amended and Restated 2004 Stock Incentive Plan, or the 2004 Plan, for executive officers, employees, consultants and non-employee directors, under which it grants stock awards. The Compensation Committee believes that providing executive officers who have responsibility for management and growth with an opportunity to increase their ownership of MediciNova s common stock better aligns the interests of its executive officers with those of its stockholders and promotes retention of key personnel, which is also in the best interest of stockholders. Accordingly, the Compensation Committee, when reviewing executive officer compensation, also considers stock awards as appropriate. At its discretion, the Compensation Committee may also grant stock awards based on individual and corporate achievements from time to time. Grants made to the Chief Executive Officer and other executive officers are approved by the Compensation Committee and then, in certain cases, recommended for approval by the Compensation Committee to the entire board of directors. The Compensation Committee determines the number

199

Table of Contents

of shares of MediciNova common stock underlying each stock award based upon the executive officer s and its corporate performance, the executive officer s role and responsibilities, the executive officer s base salary and comparisons with comparable awards to and target equity participation for individuals in similar positions in the industry, the executive officer s prior stock awards and exercise price of outstanding awards, if any, and the overall level of outstanding stock awards as a percentage of total shares outstanding. No restricted stock or stock unit awards were made to MediciNova s executive officers in 2008.

Stock Options

The Compensation Committee believes that total executive compensation should include a mix of short-term and long-term incentives. Stock options granted in fiscal year 2008 vest monthly over a 48-month period commencing on the date of grant. In general, vested stock options may be exercised within ten years from the date the stock options were granted.

Upon a participant s termination of employment with MediciNova, stock option awards remain exercisable only in accordance with the following provisions:

- upon termination by reason of death or disability, any vested stock options remain exercisable for twelve months after the date of termination; and
- upon termination for any reason other than death or disability, any vested stock options remain exercisable for three months after the date of termination.

The Compensation Committee awarded stock options to MediciNova s current executive officers in January 2008 in the following amounts: Dr. Iwaki: an option to purchase 130,000 shares of common stock; Mr. Asako: an option to purchase 74,000 shares of common stock; and Mr. Okajima: an option to purchase 48,000 shares of common stock. The total value of stock options granted to each executive officer was based on MediciNova s Chief Executive Officer s recommendations and the Compensation Committee s own assessment of each individual s performance and experience. None of MediciNova s executive officers exercised any stock options in 2008.

Severance Protection Agreements

In June 2007, the Compensation Committee, in an effort to retain key executive officers notwithstanding a change of control, recommended to the board of directors consideration of severance protection agreements, whereby the executive officers would be paid specified amounts and receive continued benefits if they were to be terminated following a change of control transaction or were to have their responsibilities and authority materially diminished following a change of control. The form of the severance protection agreement, or the Severance Protection Agreement, was approved by the board of directors in September 2007, and its material terms are described in this section under the caption Summary of Potential Payments Upon Termination or Change of Control. Each of MediciNova s executive officers is a party to a Severance Protection Agreement.

The Compensation Committee did not consider the existence of the Severance Protection Agreements in determining salary or bonus or equity awards for fiscal 2008.

Table of Contents

SUMMARY COMPENSATION TABLE

The following table summarizes all compensation for all services rendered in all capacities to MediciNova during each of the fiscal years ended December 31, 2008, December 31, 2007 and December 31, 2006 earned by MediciNova s current executive officers.

Name and Position	Year	Salary ($)	Bonus ($)	Option Awards ($) (1)	Non-Equity Incentive Plan Compensation ($)	All Other Compensation ($)	Total ($)
Yuichi Iwaki, M.D., Ph.D. (2)	2008	464,205		309,400	139,261	13,800(3)	926,666
President and Chief Executive Officer	2007	452,000	90,400			54,467(4)	596,867
	2006	350,000(5)	150,000	2,590,882			3,090,882
Shintaro Asako, CPA (6)	2008	236,210		176,120	50,224	13,800(7)	476,354
Chief Financial Officer	2007	230,000	40,250			32,943(8)	303,193
	2006	173,333(9)	73,000	911,283		31,783(10)	1,189,399
Masatsune Okajima (11)	2008	241,345		114,240	45,755	17,040(12)	418,380
Vice President and Head of Japanese Office	2007	235,000	32,900			19,676(12)	287,576
	2006	73,333(13)	60,000	1,068,783		5,000	1,207,116

(1) Amounts in the Option Awards column represents the compensation cost recognized by MediciNova during the 2008 and 2006 fiscal years related to option grants in accordance with SFAS No. 123R. See Note 1, The Company, Basis of Presentation and Summary of Significant Accounting Policies Stock Based Compensation, in the notes related to audited and unaudited financial statements of MediciNova included in this joint proxy statement/prospectus for the relevant assumptions used to determine the valuation of awards. There were no stock option grants to executive officers in the 2007 fiscal year.

(2) Dr. Iwaki is being paid salary at an annual rate of $473,488 in 2009.

(3) Includes 401(k) employer matching contributions ($13,800). Excludes long-term disability insurance and health insurance premiums, both of which are generally available to all employees on a non-discriminatory basis.

(4) Includes long-term disability ($1,176), 401(k) employer matching contributions ($13,500), health insurance premiums ($27,847) and a car allowance ($11,944, gross-up).

(5) Represents amount paid pursuant to a consulting agreement.

(6) Mr. Asako is being paid salary at an annual rate of $243,296 in 2009.

(7) Includes 401(k) employer matching contributions ($13,800). Excludes long-term disability insurance and health insurance premiums, both of which are generally available to all employees on a non-discriminatory basis.

(8) Includes long-term disability paid ($1,176), health insurance premiums ($18,267) and 401(k) employer matching contributions ($13,500).

(9) In November 2006, Mr. Asako was appointed Chief Financial Officer with a base salary of $225,000. Prior to his promotion, Mr. Asako was Vice President, Accounting & Administration with a base salary of $160,000.

(10) Includes long-term disability paid ($931), health insurance premiums ($15,374), 401(k) employer matching contributions ($6,193) and a housing allowance ($9,285, gross-up).

(11) Mr. Okajima is being paid salary at an annual rate of $248,585 in 2009.

(12) Includes a Japanese benefits adjustment as stipulated in Mr. Okajima s employment agreement.

(13) Employment began on September 1, 2006 with base salary of $220,000. The amount set forth in the table is prorated.

Table of Contents

GRANTS OF PLAN BASED AWARDS

The following table discloses the grants of plan based awards as of December 31, 2008 for each of MediciNova s current executive officers who are expected to lead MediciNova following completion of the Merger.

Name and Position	Grant Date	Estimated Possible Payouts Under Non-Equity Incentive Plans Awards			All Other Option Awards: Number of Securities Underlying Options #	Exercise or Base Price of Option Awards $/Sh. (1)	Grant Date Fair Value of Option Awards ($) (2)
		Threshold $	Target $	Maximum $			
Yuichi Iwaki, M.D., Ph.D.	1/7/2008			232,103	130,000	4.42	309,400
Shintaro Asako, CPA	1/7/2008			82,674	74,000	4.42	176,120
Masatsune Okajima	1/7/2008			84,471	48,000	4.42	114,240

(1) The exercise price of the stock option awards is either equal to or greater than the grant date s closing price, or the prior day s closing price if the grant date fell over the weekend, as reported by Nasdaq.

(2) Refer to Note 1, The Company, Basis of Presentation and Summary of Significant Accounting Policies Stock Based Compensation, in the notes related to audited and unaudited financial statements of MediciNova included in this joint proxy statement/prospectus for the relevant assumptions used to determine the valuation of awards.

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR END

The following table discloses outstanding stock awards classified as exercisable and unexercisable as of December 31, 2008 for MediciNova s current executive officers. There were no unvested stock awards as of December 31, 2008.

Name	Option Awards			
	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Option Exercise Price ($/Sh.) (1)	Option Expiration Date
Yuichi Iwaki, M.D., Ph.D.	29,167	10,833	11.60	1/4/2016(2)
	1,000		13.40	5/11/2016(3)
	15,625	4,375	11.50	7/9/2016(2)
	173,700	159,803	9.73	11/12/2016(2)
	29,791	100,209	4.42	1/6/2018(2)
Shintaro Asako, CPA	10,000		13.80	12/12/2015(4)
	11,563	3,437	23.40	11/12/2015(2)
	19,271	5,729	33.10	11/12/2015(2)
	10,938	4,062	11.60	1/4/2016(2)
	65,138	59,926	9.73	11/12/2016(2)
	16,958	57,042	4.42	1/6/2018(2)

Masatsune Okajima	10,000	6,562	11.30	8/1/2016(5)
	8,438	10,937	22.60	9/1/2016(2)
	14,063	59,926	34.10	9/1/2016(2)
	65,138	37,000	9.73	11/12/2016(2)
	11,000	8	4.42	1/6/2018(2)

Table of Contents

(1) See Note 1, The Company, Basis of Presentation and Summary of Significant Accounting Policies Stock Based Compensation, in the notes to the consolidated financial statements of MediciNova for the year ended December 31, 2008 included in this joint proxy statement/prospectus for the relevant assumptions used to determine the valuation of these stock option awards. The exercise price of the stock option awards is either equal to or greater than the grant date s closing price, or the prior day s closing price if the grant date fell over the weekend, as reported by the Hercules Market of the OSE, converted to U.S. dollars based on the respective dates exchange rate per www.Oanda.com or Nasdaq.

(2) These grants vest in equal monthly installments over four years from the vesting commencement date, which was the date of grant.

(3) This grant fully vests after six months from the vesting commencement date, which was the date of grant.

(4) This grant vested immediately upon date of grant.

(5) This grant vests in equal monthly installments over six months from the vesting commencement date, which was the date of grant.

SUMMARY OF POTENTIAL PAYMENTS UPON TERMINATION OR CHANGE IN CONTROL

Severance Protection Agreements

The Severance Protection Agreements were established to provide MediciNova s executive officers with certain payments upon a change of control. The following summary of the material provisions of the Severance Protection Agreements is qualified in its entirety by reference to the actual agreements. The Severance Protection Agreements are structured on a double-trigger basis meaning that in order for an executive officer to receive a change in control payment, there must be a change in control and within 365 days after the change in control the executive officer s employment must be terminated without cause or the executive officer must resign for good reason. If these events occur, then, pursuant to the Severance Protection Agreement, the executive is entitled to receive the following benefits:

- a lump sum severance payment equal to two times the sum of the executive officer s base salary amount and applicable bonus amount;
- a pro rata bonus computed based on certain prior bonus payments;
- continued life insurance and medical coverage for a period of up to 24 months and outplacement services for a period of up to 12 months; and
- acceleration of vesting and other benefits regarding options to purchase MediciNova common stock or other equity compensation awards provided to the executive officer in any plans or agreements.

The Severance Protection Agreements define change in control as:

- an acquisition of 40 percent or more of MediciNova s voting securities by any person;

a change in a majority of the members of the board of directors;

a merger, substantial asset sale or similar transaction resulting in current stockholders owning 50 percent or less of the common stock and voting securities of the corporation or entity resulting from such transaction; or

approval by stockholders of MediciNova s complete liquidation or dissolution.

Employment Agreements

Under the terms of the employment agreements with the MediciNova s current executive officers (other than Mr. Okajima), either party may terminate the agreement at any time upon three months notice. In lieu of three months notice, MediciNova may instead (at its election) provide the executive officer with a lump sum

Table of Contents

payment equal to 75 percent of his annual base compensation, in the case of Dr. Iwaki, and 50 percent of his annual base compensation, in the case of Mr. Asako. Under Japanese law, MediciNova must provide Mr. Okajima at least 30 days prior dismissal notice or 30 days pay in lieu thereof or a combination of such notice and pay requirements. In the event of termination of Mr. Okajima s at-will employment by MediciNova (other than for cause), MediciNova will provide six months of severance to Mr. Okajima.

The employment agreements provide that the executive officers may not disclose MediciNova s confidential and proprietary information and must assign to MediciNova any inventions or other proprietary information discovered during their employment with MediciNova.

The following table reflects potential benefits or change in control payments to MediciNova s current executive officers if they were terminated on December 31, 2008. If the amount of these payments would cause an executive to become subject to the golden parachute excise tax imposed under Section 4999 of the Code, the change in control payments will be reduced so that the executive is not subject to an excise tax.

Name	Termination for Cause (1)	Change in Control and Involuntary Termination or Voluntary Termination for Good Reason (2)	Voluntary Termination and Election by MediciNova, Inc. to Waive Required Notice Period
Yuichi Iwaki, M.D., Ph.D.			
Severance Pay		$ 1,109,210(3)	$ 348,154(4)
Pro Rata Bonus		$ 90,400	
Medical and Outplacement Benefits (7)		$ 72,730	
Acceleration of Equity Awards (8)			
Shintaro Asako, CPA			
Severance Pay		$ 552,920(3)	$ 118,105(5)
Pro Rata Bonus		$ 40,250	
Medical and Outplacement Benefits (7)		$ 50,849	
Acceleration of Equity Awards (8)			
Masatsune Okajima			
Severance Pay		$ 548,490(3)	$ 120,673(6)
Pro Rata Bonus		$ 32,900	
Medical and Outplacement Benefits (9)		$ 30,000	
Acceleration of Equity Awards (8)			

(1) Under the Severance Protection Agreements, cause is defined to include: the executive officer s conviction of a felony or any crime involving fraud, embezzlement or theft; willful engagement in illegal conduct or gross misconduct that is significantly injurious to MediciNova; or failure to perform his duties in a reasonably satisfactory manner after receipt of a notice from MediciNova detailing such failure.

(2) Under the Severance Protection Agreements, good reason is defined to include: a material adverse change in status, position, responsibilities, including reporting responsibilities, or in base salary; a relocation of the place of principal employment by more than 50 miles; or any material breach by MediciNova of any provision of any agreement to which it and the applicable executive officer are parties.

(3) Equals two times the executive officer s annual base salary and applicable bonus amount.

(4) This severance pay is payable, at MediciNova s election, if MediciNova decides to waive the three-month notice provision required for termination under the employment agreement and shall equal 75 percent of the executive officer s base salary.

(5) This severance pay is payable, at MediciNova s election, if MediciNova decides to waive the three-month notice provision required for termination under the employment agreements and shall equal 50 percent of the executive officer s annual base salary.

Table of Contents

(6) This severance pay is payable, at MediciNova s election, if MediciNova decides to terminate Mr. Okajima s employment other than for cause and shall equal six months of his annual base salary.

(7) The value of medical benefits is estimated based on the premium each executive officer would be required to pay for 24 months of continuing medical coverage under the provisions of MediciNova s medical plan required by the Consolidated Omnibus Budget Reconciliation Act (COBRA).

(8) The closing price of MediciNova common stock on December 31, 2008 was $1.59, which was below the exercise price of all of MediciNova s outstanding stock option awards as of such date.

(9) Equals two times Mr. Okajima s annual Japanese benefits adjustment.

DIRECTOR COMPENSATION

MediciNova compensates non-employee directors for their service on the board of directors. Each non-employee director is eligible to receive the following fees related to their service on the board of directors:

an initial fee of $20,000 upon first becoming a member of the board of directors; and

annual cash compensation of $40,000, payable in equal quarterly installments in arrears.

MediciNova pays the Chairman of the Audit Committee of the board of directors further annual cash compensation of $20,000. In addition, MediciNova reimburses its directors for reasonable expenses incurred in connection with attendance at board of directors and committee meetings.

MediciNova s non-employee directors receive nondiscretionary, automatic grants of nonstatutory stock options. A non-employee director is automatically granted an initial option to purchase 1,000 shares of common stock upon first becoming a member of the board of directors. The initial stock option is fully vested at the time of grant. Immediately after each of MediciNova s regularly scheduled annual meetings of stockholders, each non-employee director is automatically granted a nonstatutory stock option to purchase 1,000 shares of common stock, provided the director has served on the board of directors for at least six months. Each annual stock option vests and becomes fully exercisable on the date which is six months after the date of the grant. The stock options granted to non-employee directors have a per share exercise price equal to 100 percent of the fair market value of the underlying shares on the date of grant and become fully vested if MediciNova is subject to a change of control.

In January 2006, each non-employee, non-consultant director was granted a one-time stock option to purchase 20,000 shares of common stock at 100 percent of the fair market value of the underlying shares on the date of grant. These stock options were immediately vested as to 10,000 shares, and the remaining 10,000 shares will vest quarterly over the subsequent four years.

Table of Contents

The following table sets forth compensation information with respect to all of MediciNova s current non-employee directors for amounts earned during the year ended December 31, 2008.

Name (1)	Fees Paid in Cash ($)	Option Awards ($) (2)	Total ($)
Alan W. Dunton, M.D.	$ 40,000	$ 2,460	$ 42,460
Jeff Himawan, Ph.D.	(3)	$ 2,460	$ 2,460
Arlene Morris	$ 40,000	$ 2,460	$ 42,460
Hideki Nagao	$ 40,000	$ 2,460	$ 42,460
John Prendergast, Ph.D.	$ 60,000	$ 2,460	$ 62,460
Hiroaki Shigeta (4)			

(1) Dr. Iwaki has been omitted from the table, as he is an employee and receives no compensation for serving on the board of directors.

(2) Refer to Note 1, The Company, Basis of Presentation and Summary of Significant Accounting Policies Stock Based Compensation, in the notes to the consolidated financial statements of MediciNova for the year ended December 31, 2008 included in this joint proxy statement/prospectus for the relevant assumptions used to determine the valuation of MediciNova s awards. In fiscal year 2008, each non-employee director was granted a stock option to purchase 1,000 shares of common stock, for a total grant date fair value of all stock options awarded to MediciNova s non-employee directors of $14,760.

(3) Dr. Himawan requested in the fourth quarter of fiscal year 2007 to discontinue receiving cash compensation for serving on the board of directors.

(4) Mr. Shigeta did not join MediciNova s board of directors until September 14, 2009.

Table of Contents

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

MediciNova has entered into indemnification agreements with each of its executive officers and directors. In addition, MediciNova s executive officers and directors are indemnified under the Delaware General Corporation Law and its amended and restated bylaws to the fullest extent permitted under Delaware law. MediciNova also has a directors and officers liability insurance policy that insures its directors and officers against the cost of defense, settlement or payment of a judgment under certain circumstances.

MediciNova s Audit Committee is charged with the responsibility of reviewing certain issues involving potential conflicts of interest, and reviewing and approving all related party transactions, including those required to be disclosed as a related party transaction under applicable federal securities laws. MediciNova s Audit Committee has not adopted any specific procedures for conducting such reviews and considers each transaction in light of the specific facts and circumstances presented. The Audit Committee has approved the consulting agreement between MediciNova and Danerius, LLC, an affiliate of Alan W. Dunton, one of the directors of MediciNova, dated June 12, 2009, as amended September 23, 2009, pursuant to which Danerius provides consulting services to MediciNova related to its product development programs at a rate of $27,500 per month. Such consulting agreement will expire October 12, 2011, subject to either party providing written notice of termination or MediciNova terminating the agreement for breach. Since the beginning of 2008, no other transaction requiring disclosure under applicable federal securities laws was submitted to the Audit Committee for approval as a related party transaction.

Table of Contents

MEDICINOVA SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information as of November 12, 2009 as to shares of common stock beneficially owned by: (1) each person who is known by MediciNova to own beneficially more than five percent of the MediciNova common stock, (2) each of MediciNova s directors, (3) each of MediciNova s executive officers as of December 31, 2008 and (4) all of MediciNova s directors and executive officers as a group. Ownership information is based upon information furnished by the respective individuals or entities, as the case may be. The percentage of MediciNova common stock beneficially owned is based on 12,103,969 shares outstanding as of November 12, 2009. In addition, shares issuable pursuant to stock options and warrants which may be exercised within 60 days of November 12, 2009 are deemed to be issued and outstanding and have been treated as outstanding in calculating the percentage ownership of those individuals possessing such interest, but not for any other individual. The pro forma ownership data assume that the Merger closed on November 12, 2009 on which date each share of Avigen common stock was cancelled and extinguished in exchange for Convertible Notes issued by MediciNova in an amount equal to approximately $35.4 million, or the approximate total of the First Payment Consideration. It is also assumed that all Convertible Notes were converted into shares of MediciNova common stock at a conversion price of $6.80 per share, in accordance with the Merger Agreement, immediately upon issuance.

Name and Address of Beneficial Owner (1)	Number of Shares of Common Stock Beneficially Owned	Percentage of Common Stock Beneficially Owned	Pro Forma Percentage of Common Stock Beneficially Owned
5% Stockholders			
Essex Woodland Health Ventures Fund VI, L.P. (2)	1,214,370	10.0%	7.0%
Directors and Executive Officers:			
Yuichi Iwaki, M.D., Ph.D. (3)	1,055,088	8.4%	6.1%
Alan W. Dunton, M.D. (4)	33,166	*	*
Jeff Himawan, Ph.D. (5)	1,214,370	10.0%	7.0%
Arlene Morris (4)	33,166	*	*
Hideki Nagao (4)	44,000	*	*
John K.A. Prendergast, Ph.D. (4)	46,000	*	*
Shintaro Asako, CPA (6)	232,468	1.9%	1.3%
Richard E. Gammans, Ph.D. (7)		*	*
Michael Kalafer, M.D. (8)		*	*
Masatsune Okajima (9)	193,525	1.6%	1.1%
Hiroaki Shigeta (10)	1,000	*	*
All directors and executive officers as a group (11 persons) (11)	2,852,783	23.6%	16.5%

* Amount represents less than one percent of the outstanding shares of MediciNova common stock.

(1) Unless otherwise noted, the address of each beneficial owner listed in the table is c/o MediciNova, Inc., 4350 La Jolla Village Drive, Suite 950, San Diego, California 92122. Except as indicated by footnote, and subject to community property laws where applicable, the beneficial owner has sole voting and investment power with respect to all shares of MediciNova common stock shown as beneficially owned by them.

(2) Reflects 1,170,370 shares owned by Essex Woodland Health Ventures Fund VI, L.P., and 44,000 shares subject to stock options exercisable within 60 days of November 12, 2009. The principal business address for Essex Woodlands Health Ventures Fund VI, L.P. is 435 Tasso Street, Suite 305, Palo Alto, California 94301. MediciNova has been advised by Essex Woodlands Health Ventures, general partner of Essex Woodlands Health Ventures Fund VI, L.P., that up to 12 persons who are partners of Essex Woodlands Health Ventures have voting and investment power over shares held by Essex Woodlands Health Ventures Fund VI, L.P. At least a majority of those voting is required for an investment decision, and in practice the decisions are almost always made pursuant to a unanimous vote.

Table of Contents

(3) Includes 643,972 shares held by Dr. Iwaki and 411,116 shares subject to stock options exercisable within 60 days of November 12, 2009.

(4) Reflects shares subject to stock options exercisable within 60 days of November 12, 2009. Dr. Dunton has named Danerius, LLC as the designee to receive any stock options Dr. Dunton receives in his capacity as director. Dr. Dunton disclaims beneficial ownership of such shares except to the extent of his pecuniary interest therein.

(5) Reflects 1,170,370 shares owned by Essex Woodland Health Ventures Fund VI, L.P., of which Dr. Himawan serves as Managing Director and 44,000 shares subject to stock options exercisable within 60 days of November 12, 2009. Dr. Himawan has named Essex Woodlands Health Ventures as the designee to receive any stock options Dr. Himawan receives in his capacity as director. Dr. Himawan disclaims beneficial ownership of such shares except to the extent of his pecuniary interest therein.

(6) Includes 17,707 shares held by Mr. Asako and 232,468 shares subject to stock options exercisable within 60 days of November 12, 2009.

(7) Dr. Gammans terminated his employment with MediciNova in June 2009. All shares owned have been sold and no vested stock options remain outstanding as of November 12, 2009.

(8) Dr. Kalafer terminated his employment with MediciNova in June 2009. All shares owned have been sold and no vested stock options remain outstanding as of November 12, 2009.

(9) Includes 17,728 shares held by Mr. Okajima and 193,525 shares subject to stock options exercisable within 60 days of November 12, 2009.

(10) Mr. Shigeta joined MediciNova s board of directors on September 14, 2009, at which time he was automatically granted an option to purchase 1,000 shares that was fully vested at the time of grant.

(11) Includes 1,849,777 shares held of record and 1,003,006 shares subject to stock options that are exercisable within 60 days of November 12, 2009.

Table of Contents

AVIGEN SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding the ownership of Avigen common stock as of November 12, 2009 by: (1) each director of Avigen; (2) each of Avigen s named executive officers; (3) all executive officers and directors of Avigen as a group; and (4) all those known by Avigen to be beneficial owners of more than five percent of Avigen common stock. Percentage ownership amounts are based on 29,848,365 outstanding shares of Avigen common stock as of November 12, 2009.

	Beneficial Ownership (1)	
Beneficial Owner	**Number of Shares (2)**	**Percent of Total**
Executive Officers and Directors		
Kenneth Chahine, J.D., Ph.D. (3)	823,824	2.69%
Andrew Sauter (4)	308,522	1.02%
Michael Coffee (3)	418,845	1.38%
Kirk Johnson, Ph.D. (5)	380,261	1.26%
M. Christina Thomson, J.D. (3)	413,236	1.37%
Stephen Dilly, M.B.B.S., Ph.D. (6)	31,166	*
Zola Horovitz, Ph.D. (7)	170,000	*
Jan Öhrström, M.D. (8)	31,166	*
John Prendergast, Ph.D. (9)	144,108	*
Richard Wallace (10)	55,000	*
All executive officers and directors as a group (10 persons) (11)	2,776,128	8.52%
5% Stockholders		
BVF, Inc. (12) 900 North Michigan Avenue, Suite 1100 Chicago, IL 60611	8,318,400	27.87%
Southpaw Asset Management LP (13) Four Greenwich Office Park Greenwich, CT 06831	5,349,635	17.92%
Burlingame Asset Management (14) One Market Street, Spear Street Tower, Suite 3750 San Francisco, California 94105	3,800,210	12.73%

* Less than one percent.

(1) This table is based upon information supplied by officers, directors and principal stockholders and Schedules 13G and 13D filed with the SEC. Unless otherwise indicated in the footnotes to this table and subject to community property laws where applicable, Avigen believes that each of the stockholders named in this table has sole voting and investment power with respect to the shares indicated as beneficially owned. Applicable percentages are based on 29,848,365 shares outstanding on November 12, 2009, adjusted as required by rules promulgated by the SEC. Unless otherwise indicated, the address of each of the individuals and entities listed in this table is c/o Avigen, Inc., 1301 Harbor Bay Parkway, Alameda, California 94502.

(2) Includes shares that are issuable upon exercise of options within 60 days of November 12, 2009, none of which are expected to be exercised by the holders thereof because the applicable exercise prices exceed the amount expected to received for each share of Avigen common stock in the Merger.

(3) Consists solely of shares issuable upon the exercise of options that are exercisable within 60 days of November 12, 2009.

(4) Includes 304,397 shares issuable upon the exercise of options held by Mr. Sauter that are exercisable within 60 days of November 12, 2009. Does not include 35,823 shares subject to options that would become exercisable as a result of completion of the Merger.

Table of Contents

(5) Consists solely of shares issuable upon the exercise of options held by Dr. Johnson that are exercisable within 60 days of November 12, 2009. Does not include 35,214 shares subject to options that would become exercisable as a result of completion of the Merger.

(6) Consists solely of shares issuable upon the exercise of options held by Dr. Dilly that are exercisable within 60 days of November 12, 2009. Does not include 25,501 shares subject to options that would become exercisable as a result of completion of the Merger.

(7) Includes 165,000 shares issuable upon the exercise of options held by Dr. Horovitz that are exercisable within 60 days of November 12, 2009. Does not include 40,000 shares subject to options that would become exercisable as a result of completion of the Merger.

(8) Consists solely of shares issuable upon the exercise of options held by Dr. Öhrström that are exercisable within 60 days of November 12, 2009. Does not include 25,501 shares subject to options that would become exercisable as a result of completion of the Merger.

(9) Includes 105,000 shares issuable upon the exercise of options held by Dr. Prendergast that are exercisable within 60 days of November 12, 2009. Does not include 20,000 shares subject to options that would become exercisable as a result of completion of the Merger.

(10) Consists solely of shares issuable upon the exercise of options held by Mr. Wallace that are exercisable within 60 days of November 12, 2009. Does not include 20,000 shares subject to options that would become exercisable as a result of completion of the Merger.

(11) Includes an aggregate of 2,727,895 shares issuable upon exercise of options which executive officers and directors of Avigen have the right to acquire within 60 days of November 12, 2009. Does not include 202,039 shares subject to options that would become exercisable as a result of completion of the Merger.

(12) Based upon a Schedule 13D/A filed with the SEC on October 23, 2009 by Biotechnology Value Fund, L.P. and includes shares owned by the following affiliated entities: (a) Biotechnology Value Fund, L.P. 1,860,140 shares; (b) Biotechnology Value Fund II, L.P. 1,284,911 shares; (c) BVF Investments, L.L.C. 4,692,764 shares; and (d) Investment 10, L.L.C. 480,585 shares. BVF, Inc., BVF Partners and Mark Lampert beneficially own an aggregate of 8,318,400 shares.

(13) Based upon a Schedule 13G/A filed with the SEC on November 10, 2009, by (i) Southpaw Credit Opportunity Master Fund LP (the Fund), a Cayman Islands limited partnership, (ii) Southpaw Asset Management LP (Southpaw Management), a Delaware limited partnership, as the investment manager to the Fund and certain managed accounts (the Managed Accounts), (iii) Southpaw Holdings LLC (Southpaw Holdings), a Delaware limited liability company, as the general partner of Southpaw Management, (iv) Kevin Wyman, a principal of Southpaw Holdings, and (v) Howard Golden, a principal of Southpaw Holdings. Such Schedule 13G reported that (a) the Fund holds 4,884,508 shares of Avigen common stock, and (b) the Fund and the Managed Accounts hold 5,349,635 shares of Avigen common stock.

(14) Based upon a Schedule 13G filed with the SEC on July 27, 2009 and Form 4s filed on September 15, 2009, September 21, 2009 and October 30, 2009 by Burlingame Asset Management, LLC and includes shares owned by the following affiliated entities: (a) Burlingame Equity Investors, LP 2,254,724 shares; (b) Burlingame Equity Investors II, LP 263,004 shares; and (c) Burlingame Equity Investors (Offshore) Ltd. 407,047 shares and (d) Burlingame Special Opportunities III, LP 867,000 shares. Burlingame Asset Management, LLC and Blair E. Sanford beneficially own an aggregate of 3,800,210 shares.

Table of Contents

MARKET PRICES AND DIVIDENDS ON COMMON STOCK AND RELATED STOCKHOLDER MATTERS

MediciNova

MediciNova common stock is traded on the Hercules Market of the OSE under the symbol 4875 and on Nasdaq under the symbol MNOV. MediciNova common stock has been traded on the Hercules Market since February 8, 2005 and on Nasdaq since December 7, 2006. The following table sets forth the high and low sale prices per share of MediciNova common stock as reported on Nasdaq.

MediciNova Common Stock

	High	Low
Year Ended December 31, 2007		
First Quarter	$ 14.40	$ 10.56
Second Quarter	11.00	8.30
Third Quarter	9.02	6.35
Fourth Quarter	9.00	4.29
Year Ended December 31, 2008		
First Quarter	$ 4.78	$ 3.30
Second Quarter	4.96	3.31
Third Quarter	4.76	2.21
Fourth Quarter	2.63	1.50
Year Ended December 31, 2009		
First Quarter	$ 3.20	$ 1.43
Second Quarter	4.25	1.93
Third Quarter	7.46	4.00
Fourth Quarter (through November 12, 2009)	6.89	5.60

On August 20, 2009, the day prior to the announcement of the Merger, the closing price of MediciNova s common stock was $6.47.

Dividend Policy

MediciNova has never declared or paid any cash dividends on its capital stock, and it does not anticipate paying any cash dividends in the foreseeable future. MediciNova expects to retain its future earnings, if any, to fund the growth and development of its business. Payment of future dividends, if any, will be at the discretion of MediciNova s board of directors.

Holders

As of November 12, 2009, there were approximately 5,900 holders of record of MediciNova common stock.

Table of Contents

Securities Authorized for Issuance under Equity Compensation Plans

The following table provides information as of December 31, 2008 with respect to the shares of MediciNova common stock that may be issued under MediciNova s existing equity compensation plans.

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights	Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans
Equity Compensation Plans Approved by Stockholders (1)	2,494,011	$ 10.59	1,445,489
Equity Compensation Plans Approved by Stockholders (2)	18,607	$ 1.96(2)	257,706
Equity Compensation Plans Not Approved by Stockholders (3)	85,500	$ 10.00	
Warrants (4)	50,000	$ 10.00	
Total	2,648,118	$ 10.50	1,703,195

(1) Consists of the MediciNova, Inc. Amended and Restated 2004 Stock Incentive Plan, or the 2004 Plan. Awards under the 2004 Plan shall not exceed 3,330,000 shares, plus an annual increase on the first day of each fiscal year, with the first increase occurring on January 1, 2006, in an amount equal to the lesser of (i) 100,000 shares, (ii) 3 percent of the outstanding shares on the last day of the immediately preceding year, or (iii) an amount determined by MediciNova s board of directors. Stock options under the 2004 Plan have an exercise price equal to the fair market value of the underlying MediciNova common stock at the date of grant, generally vest over a period of four years and have a ten-year life.

(2) Consists of the MediciNova, Inc. 2007 Employee Stock Purchase Plan, or the ESPP. Under the ESPP, 300,000 shares of MediciNova common stock have been reserved for issuance. The ESPP permits full-time employees to purchase MediciNova common stock through payroll deductions (which cannot exceed 15% of each employee s compensation) at the lower of 85 percent of fair market value at the beginning of the offering period or the end of each six-month offering period.

(3) Consists solely of the MediciNova, Inc. 2000 General Stock Incentive Plan, or the 2000 Plan, which was terminated upon the completion of MediciNova s initial public offering on February 4, 2005. The material terms of the 2000 Plan are described in Note 5 in the notes related to audited and unaudited financial statements of MediciNova included in this joint proxy statement/prospectus. The remaining 45,000 shares available for future grant under the 2000 Plan were cancelled.

(4) Consists of warrants not approved by stockholders issued to BioVen Advisory, Inc. The warrants expired in May 2009 unexercised.

Table of Contents

Avigen

Avigen common stock is traded on Nasdaq under the symbol AVGN. The following table sets forth the high and low sale prices per share of Avigen common stock as reported on Nasdaq.

Avigen Common Stock

	High	Low
Year Ended December 31, 2007		
First Quarter	$ 7.44	$ 5.35
Second Quarter	7.10	6.11
Third Quarter	6.33	4.56
Fourth Quarter	5.55	3.67
Year Ended December 31, 2008		
First Quarter	$ 4.84	$ 2.52
Second Quarter	3.50	2.37
Third Quarter	4.66	2.65
Fourth Quarter	4.00	0.49
Year Ended December 31, 2009		
First Quarter	$ 1.25	$ 0.71
Second Quarter	1.47	1.20
Third Quarter	1.58	1.23
Fourth Quarter (through November 12, 2009)	1.64	1.41

On August 20, 2009, the day prior to the announcement of the Merger, the closing price of Avigen s common stock was $1.33.

Dividend Policy

Avigen has never declared or paid any cash dividends on its common stock and does not anticipate declaring or paying cash dividends in the future.

Holders

As of November 12, 2009 there were approximately 98 holders of record of Avigen common stock.

Securities Authorized for Issuance under Equity Compensation Plans

The following table provides certain information with respect to all of Avigen s equity compensation plans in effect as of December 31, 2008:

Plan Category	Number of Securities to be Issued Upon Exercise of Outstanding Options, Warrants and Rights (1)	Weighted Average Exercise Price of Outstanding Options, Warrants and Rights	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in column (2)
Equity Compensation Plans Approved by Security Holders	3,165,283	$ 5.80	2,167,247
Equity Compensation Plans Not Approved by Security Holders	977,041	$ 8.68	0

Total	4,142,324	$	6.48	2,167,247

(1) Avigen s 2000 Equity Incentive Plan, or the 2000 Plan, was adopted in 2000 without stockholder approval. The 2000 Plan was amended and restated as the Avigen 2006 Equity Incentive Plan, the 2006 Plan, which amendment and restatement was approved by Avigen stockholders on May 31, 2006. The number of shares subject to options outstanding under plans not approved by Avigen stockholders reflects options granted pursuant to the 2000 Plan prior to May 31, 2006, which number of shares is not reflected as outstanding under compensation plans approved by Avigen stockholders.

(2) Reflects shares available for grant under the 2006 Plan.

Table of Contents

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES OF THE MERGER

The following discussion represents the opinion of Dechert LLP, tax counsel to MediciNova, and Cooley Godward Kronish LLP, tax counsel to Avigen, regarding the material U.S. federal income tax considerations of the Merger applicable to certain Avigen stockholders. This summary does not discuss any tax consequences under state, local, or foreign tax laws with respect to the Merger. In addition, this summary does not discuss any U.S. federal income tax considerations to Avigen stockholders who exercise appraisal and/or dissenter s rights under Delaware law. Furthermore, the discussion below is based upon the current provisions of the Internal Revenue Code of 1986, as amended (which we refer to as the Code), the Treasury Regulations promulgated thereunder and administrative and judicial interpretations thereof, all as of the date of the opinions attached as Exhibits 8.1 and 8.2 hereto, and such authorities may be repealed, revoked, modified or subject to differing interpretations, possibly on a retroactive basis, so as to result in U.S. federal income tax consequences different from those discussed below. No ruling has been or will be requested from the Internal Revenue Service, or IRS, and there can be no assurance that the IRS or a court will agree with the conclusions stated herein. This summary is limited to Avigen stockholders that hold their Avigen common stock as a capital asset (generally, property held for investment) under the Code. **You are urged to consult your own tax advisors regarding the particular U.S. federal income tax consequences to you of the Merger, as well as any state, local or non-U.S. tax consequences to you.**

The following describes the material U.S. federal tax consequences of the Merger to certain holders of Avigen common stock. This summary does not deal with special situations, such as those of:

- dealers, brokers or traders in securities or currencies,
- banks or other financial institutions,
- regulated investment companies,
- real estate investment trusts,
- tax-exempt entities,
- insurance companies,
- persons holding Avigen common stock as a part of a hedging, integrated, conversion or constructive sale transaction or a straddle,
- except as described below under *U.S. Federal Income Tax Treatment of the Second Payment Consideration and Convertible Notes for Non-U.S. Holders* and *Information Reporting and Backup Withholding for Non-U.S. Holders*, foreign persons or entities,
- persons liable for alternative minimum tax,
- holders who acquired their Avigen common stock in connection with stock option or stock purchase plans or in other compensatory transactions,
- holders who hold shares that constitute small business stock within the meaning of Section 1202 of the Code,

holders who acquired Avigen common stock in a transaction subject to the gain rollover provisions of Section 1045 of the Code,

partnerships and limited liability companies (in each case that are not treated as corporations for U.S. federal income tax purposes), S corporations under subchapter S of the Code or other pass-through entities or investors in such entities, or

holders whose functional currency is not the U.S. dollar.

Tax law often is uncertain. Where we use should below, we mean that there is a high degree of confidence about the conclusion but there is no direct authority addressing the matter and that a rational contrary conclusion may apply or that there may be conflicting authority as to the tax treatment of a matter. As a result, the U.S. federal income tax treatment of a matter described using should could be different than described.

Table of Contents

In General

The exchange of Avigen common stock in the Merger will be a taxable exchange for U.S. federal income tax purposes. In general, subject to the discussion below regarding possible installment sale reporting and open transaction treatment with respect to CPRs, an Avigen stockholder will recognize capital gain or loss for U.S. federal income tax purposes equal to the difference, if any, between (i) the sum of the cash received in the Merger, the fair market value of the Convertible Notes received in the Merger, the fair market value of the CPRs received in the Merger and the fair market value of the Second Payment Consideration rights (see U.S. Federal Income Tax Treatment of the Second Payment Consideration below) received in the Merger, and (ii) the stockholder s adjusted basis in Avigen common stock surrendered in the Merger. Gain or loss will be determined separately for each block of shares (i.e., shares acquired at the same cost in a single transaction). Such gain or loss will be long-term capital gain or loss provided that a stockholder s holding period for such shares is more than 12 months at the time of the consummation of the Merger. The timing of income, gain or loss recognition with respect to the CPRs is unclear and is more fully described below under U.S. Federal Income Tax Treatment of the CPRs. Long-term capital gains of individuals are eligible for reduced rates of taxation. There are limitations on the deductibility of capital losses. Because the Avigen common stock is traded on an established securities market for the purposes of Section 453(k)(2)(A) of the Code, in general, Avigen stockholders may not use the installment method to report gain on the disposition of Avigen common stock in the Merger. Avigen stockholders whose stock may not be readily tradable should consult with their tax advisors as to whether the installment method for reporting gain may be available to them. MediciNova intends to provide Avigen stockholders with appropriate federal income tax reporting information setting forth MediciNova s determination of the amount realized by such Avigen stockholders.

U.S. Federal Income Tax Treatment of the Convertible Notes

The Convertible Notes should be treated as debt for U.S. federal income tax purposes. Avigen stockholders receiving Convertible Notes in the Merger will have an adjusted tax basis in the Convertible Notes immediately following the Merger equal to the fair market value of the Convertible Notes received. After the Merger, holders of Convertible Notes should include original issue discount (OID) in their income with respect to the Convertible Notes. Under the OID rules, holders of debt instruments that do not pay interest on a current basis generally are required to include in income the current portion of the excess of the stated redemption price at maturity over the issue price of each Convertible Note ratably as it accrues. OID included in income will be ordinary income and subject to taxation at the applicable ordinary income tax rate for each holder. OID included in income of a holder will increase the holder s adjusted tax basis in the Convertible Note.

Avigen stockholders receiving Convertible Notes as their Second Payment Consideration will have an adjusted tax basis in the Convertible Notes received as Second Payment Consideration equal to the fair market value of those Convertible Notes. If Avigen stockholders receive Convertible Notes as Second Payment Consideration more than one year prior to the maturity date of the Convertible Notes, they should include OID in income as discussed above. If they receive Convertible Notes as Second Payment Consideration less than one year prior to the maturity date of the Convertible Notes, they should include interest in income in accordance with their normal method of accounting.

If a holder exercises the right to convert the Convertible Note into shares of MediciNova common stock, such conversion generally should not be a taxable event. However, a holder exercising the conversion right should include in income immediately prior to the conversion any amounts of OID not previously included in income. A holder exercising the conversion right will receive shares of MediciNova common stock with an adjusted tax basis equal to the basis the holder had in the Convertible Note immediately prior to the conversion, including any adjustments for OID included in income. Shares received should have a holding period that includes the holding period of the Convertible Note.

Table of Contents

Constructive Distributions

The conversion rate of the Convertible Notes will be adjusted in certain circumstances. See the discussion under the heading Description of Notes Conversion Rate; Adjustments. Holders of the Convertible Notes may be treated as having received a constructive distribution if an adjustment is made to the conversion price of the Convertible Notes that has the effect of increasing the proportionate interest in MediciNova s common equity, whether or not the conversion privilege is exercised. In that case, holders of Convertible Notes would be required to recognize ordinary income (and if the holder is a corporation may be eligible for the dividends received deduction) to the extent of our current and/or accumulated earnings and profits. Adjustments to the conversion price made pursuant to a bona fide reasonable adjustment formula having the effect of preventing dilution of the interests of holders of the Convertible Notes will generally not be treated as resulting in a constructive distribution. However, adjustments made in connection with a distribution of property to holders of MediciNova common stock (generally other than distributions of common stock or rights to acquire common stock) generally would result in a constructive distribution.

U.S. Federal Income Tax Treatment of the Second Payment Consideration

The Second Payment Consideration should be treated as a payment under a contract for the sale or exchange of property to which Code Section 483 applies for U.S. federal income tax purposes. Amounts received on account of the Second Payment Consideration rights (including the value of any Convertible Notes received on account of the Second Payment Consideration rights) should have an amount of unstated interest equal to the excess of the sum of the payments to be received that are due more than 6 months after the date of Merger over the present value of such payments. The present value of such payments is calculated by discounting such payments from the date such payments become due to the date of the Merger, using the short-term applicable federal rate. The amount of unstated interest on account of the Second Payment Consideration should not be treated as part of the amount realized in the Merger. The amounts of unstated interest attributable to the Second Payment Consideration should be taken into account in a U.S. Holder s taxable income in accordance with the U.S. Holder s regular method of accounting. Any amounts of unstated interest not previously recognized by a U.S. Holder should be included in income of the U.S. Holder upon receipt of the Second Payment Consideration. If the amount of Second Payment Consideration exceeds (or is less than) the sum of the fair market value of the Second Payment Consideration used to determine the gain or loss on the exchange of Avigen common stock in the Merger and the unstated interest as calculated above, that excess (or shortfall) should be taxed as capital gain (or loss). The unstated interest is taxed as ordinary income.

U.S. Federal Income Tax Treatment of the CPRs

There is substantial uncertainty as to the U.S. federal income tax treatment of the CPRs. The analysis herein assumes that the CPRs are not eligible for open transaction treatment and accordingly that the fair market value of the CPRs must be included as part of the Merger consideration on the date on which the Merger is consummated. There is no authority directly on point addressing whether contingent payment rights with characteristics similar to the CPRs should be taxed as open transactions or closed transactions and such question is inherently factual in nature, although open transaction treatment generally may be used only in rare and extraordinary cases where the value of the property cannot reasonably be ascertained. Moreover, we intend to ascertain the value of the CPRs and include that value as part of the consideration reported in Forms 1099 to Avigen stockholders. Accordingly, you are urged to consult your tax advisors regarding this issue.

Assuming the Merger is treated as a closed transaction for U.S. federal income tax purposes, a former Avigen stockholder s initial tax basis in the CPRs will equal the fair market value of the CPRs on the date of the consummation of the Merger, and the holding period of the CPRs will begin on the day following the date of the consummation of the Merger.

Table of Contents

There is no direct authority with respect to the treatment of contingent variable rights payments similar to the CPR payments. You should therefore consult your tax advisors regarding the taxation of such payments.

To the extent that the aggregate of any payments with respect to CPRs is less than the holder s adjusted basis in the CPR, the holder should recognize a capital loss. There is no clear legal authority dictating the classification of any potential or resulting gain as capital gain or ordinary income (including possible imputed interest) for income tax purposes or the timing of such recognition. Accordingly, any such classification and the timing of such recognition is uncertain.

Due to the legal and factual uncertainty regarding the tax treatment of the CPRs, you should consult your tax advisors concerning the recognition of income or gain, if any, resulting from the receipt of payments with respect to the CPRs.

U.S. Federal Income Tax Treatment of the Second Payment Consideration and Convertible Notes for Non-U.S. Holders

For purposes of this discussion, a Non-U.S. Holder of Avigen common stock means a holder that, for U.S. federal income tax purposes, is not a U.S. Holder. A U.S. Holder of Avigen common stock means a holder that, for U.S. federal income tax purposes, is a U.S. person. The term U.S. person means:

- an individual citizen or resident of the United States,
- a corporation (or other entity taxable as a corporation) created or organized in or under the laws of the United States or any State thereof or the District of Columbia,
- an estate the income of which is subject to U.S. federal income taxation regardless of its source, or
- a trust, if it (1) is subject to the primary supervision of a court within the United States and one or more U.S. persons have the authority to control all substantial decisions of the trust, or (2) has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a U.S. person.

This summary is included herein as general information only and is limited solely to the specific U.S. federal income tax treatment for Non-U.S. Holders of holding and converting the Convertible Notes as described below. We urge you to consult your own tax advisors concerning the particular U.S. federal income tax consequences to you of the Merger, as well as any consequences to you arising under the laws of any other taxing jurisdiction.

This summary does not consider specific facts and circumstances that may be relevant to a particular Non-U.S. Holder s tax position and does not consider the state, local or non-U.S. tax consequences of an investment in the Convertible Notes. Special rules may apply to certain Non-U.S. Holders, such as:

- U.S. expatriates,
- controlled foreign corporations,
- passive foreign investment companies,
- foreign personal holding companies,

corporations that accumulate earnings to avoid U.S. federal income tax, and

investors in pass-through entities that are subject to special treatment under the Code.

Such Non-U.S. Holders are urged to consult their own tax advisors to determine the U.S. federal, state, local and other tax consequences that may be relevant to them.

Table of Contents

Non-U.S. Holders receiving Convertible Notes in the Merger generally will not be subject to U.S. federal income or withholding tax on payments of interest, OID or upon the exercise of the right to convert the Convertible Notes into MediciNova common stock, provided that the withholding agent receives appropriate documentation (generally, an IRS Form W-8BEN or a successor form) establishing that the Non-U.S Holder is not a U.S. person, unless the Non-U.S. Holder:

(i) actually or constructively (including by reason of the conversion right in the Convertible Notes) owns 10% or more of the total combined voting power of all classes of MediciNova stock that are entitled to vote;

(ii) is a controlled foreign corporation that is related to MediciNova through stock ownership; or

(iii) holds the Convertible Notes in connection with the conduct of a trade or business within the United States in which case, so long as the Non-U.S. Holder provides a properly-executed IRS Form W-8ECI (or successor form) to the withholding agent, the Non-U.S. Holder generally will not be subject to withholding tax, but will be taxed in the same manner as U.S. Holder with respect to OID and payments of interest not previously included in income as OID, and, in the case of non-U.S. corporations, may also be subject to an additional branch profits tax at a rate of 30% (or, if applicable, a lower treaty rate).

Non-U.S. Holders receiving Second Payment Consideration rights in the Merger will not be subject to U.S. federal income tax withholding on any payments received pursuant to such right, unless they meet one of the three exceptions noted immediately above.

If a Non-U.S. Holder does not qualify for exemption from withholding tax with respect to interest that is not effectively connected income, the Non-U.S. Holder generally will be subject to withholding at a 30% rate (or, if applicable, a lower treaty rate) on any payments of interest that have not been previously included in income as OID made to the Non-U.S. Holder with respect to the Convertible Notes or upon the conversion of the Convertible Notes into MediciNova common stock. In the event withholding is required upon the conversion of the Convertible Notes into MediciNova common stock, the Non-U.S. Holder will only receive shares of MediciNova common stock equal to the amount the Non-U.S. Holder is entitled to receive upon conversion net of shares having a value at the time of conversion equal to all applicable withholding taxes. To claim the benefits of a treaty, a Non-U.S. Holder must provide a properly-executed IRS Form W-8BEN (or a successor form) prior to any payment of OID or interest or conversion into MediciNova common stock. For purposes of providing a properly-executed IRS Form W-8BEN, special procedures are provided under applicable Treasury Regulations for payments through qualified foreign intermediaries or certain financial institutions that hold customers securities in the ordinary course of their trade or business.

Dividends (including deemed dividends on the Convertible Notes described above under Constructive Dividends) paid to a Non-U.S. Holder of MediciNova common stock generally will be subject to withholding tax at a 30% rate or a reduced rate specified by an applicable income tax treaty. If MediciNova pays withholding taxes on the Noteholders behalf as a result of an adjustment to the conversion rate of the Convertible Notes, MediciNova may, at its option pursuant to certain provisions of the Indenture, set off such payments against payments of cash and MediciNova common stock in respect of the Convertible Notes. In order to obtain a reduced rate of withholding, a Non-U.S. Holder will be required to provide an Internal Revenue Service Form W-8BEN certifying its entitlement to benefits under a treaty.

The withholding tax does not apply to dividends (including deemed dividends) paid to a Non-U.S. Holder who provides a Form W-8ECI, certifying that the dividends are effectively connected with the Non-U.S. Holder s conduct of a trade or business within the United States. Instead, the effectively connected dividends will be subject to regular U.S. income tax as if the Non-U.S. Holder were a U.S. resident. A non-U.S. corporation receiving effectively connected dividends may also be subject to an additional branch profits tax imposed at a rate of 30% (or a lower treaty rate).

Table of Contents

Information Reporting and Backup Withholding for U.S. Holders

Under U.S. federal income tax laws, the exchange agent will generally be required to report to a U.S. Holder and to the IRS any payments made to a U.S. Holder in exchange for Avigen common stock in the Merger, and may be required to backup withhold from such payment, currently at a rate of 28%. In addition, payments pursuant to the CPRs may be subject to backup withholding and information reporting. To avoid such backup withholding, a U.S. Holder must generally provide the exchange agent or other applicable person a properly completed Form W-9 or Substitute Form W-9, signed under penalties of perjury, including such U.S. Holder s current Taxpayer Identification Number, or TIN, and other certifications. If the U.S. Holder does not provide the exchange agent with a TIN and other required certifications, the exchange agent will backup withhold from payments made to the U.S. Holder (unless the U.S. Holder is an exempt recipient as described in the next sentence and demonstrates this fact).

Certain U.S. Holders (including, among others, corporations) are exempt from these backup withholding and reporting requirements. Exempt holders who are not subject to backup withholding should indicate their exempt status on Form W-9 or a Substitute Form W-9 by entering their correct TIN, marking the appropriate box and signing and dating the Form W-9 or Substitute Form W-9 in the space provided.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules will be allowed as a refund or a credit against a U.S. Holder s U.S. federal income tax liability provided the required information is timely furnished to the IRS.

Information Reporting and Backup Withholding for Non-U.S. Holders

Under U.S. federal income tax laws, any payments made to a Non-U.S. Holder in exchange for Avigen common stock in the Merger through the U.S. office of any broker, U.S. or foreign, will be subject to information reporting and possible backup withholding unless the Non-U.S. Holder certifies as to its non-U.S. status under penalties of perjury or otherwise establishes an exemption, provided that the broker does not have actual knowledge or reason to know that the holder is a U.S. person or that the conditions of any other exemption are not, in fact, satisfied. Copies of the information returns reporting such payments and any withholding may also be made available to the tax authorities in the country in which a Non-U.S. Holder resides. Generally, any payments made to a Non-U.S. Holder to or through a non-U.S. office of a non-U.S. broker will not be subject to U.S. information reporting or U.S. backup withholding unless the non-U.S. broker has certain types of relationships with the United States (which we refer to as a United States related person). In the case of payments made to a Non-U.S. Holder to or through a non-U.S. office of a broker that is either a U.S. person or a United States related person, the Treasury Regulations require information reporting (but not the backup withholding) on the payment unless the broker has documentary evidence in its files that the owner is a Non-U.S. Holder and the broker has no knowledge to the contrary. Non-U.S. Holders should consult their own tax advisors on the application of information reporting and backup withholding to them in their particular circumstances.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a Non-U.S. Holder will be credited against the Non-U.S. Holder s U.S. federal income tax liability, if any, with any excess withholding refunded, provided that the required information is furnished to the IRS.

Table of Contents

UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL STATEMENTS

MediciNova and Avigen Unaudited Pro Forma Condensed Combined Financial Statements

The following unaudited pro forma condensed combined financial statements give effect to the proposed merger of MediciNova s wholly-owned subsidiary, Absolute Merger, Inc. (Merger Sub) and Avigen in a transaction to be accounted for under the acquisition method of accounting in accordance with the authoritative guidance on business combinations under ASC 805 (formerly SFAS No. 141(R), Business Combinations (Revised)), in which Avigen will merge with and into Merger Sub with Avigen continuing as the surviving entity and wholly-owned subsidiary of MediciNova. The unaudited pro forma condensed combined balance sheet is based on the individual historical consolidated balance sheets of MediciNova and Avigen as of September 30, 2009, and has been prepared to reflect the merger of MediciNova and Avigen as of September 30, 2009. The unaudited pro forma condensed combined statements of operations are based on the individual historical consolidated statements of operations of MediciNova and Avigen and combine the results of operations of MediciNova and Avigen for the year ended December 31, 2008 and the nine months ended September 30, 2009, giving effect to the merger as if it occurred as of the beginning of the periods presented, reflecting only pro forma adjustments expected to have a continuing impact on the combined results.

These unaudited pro forma condensed combined financial statements are for illustrative purposes only. They do not purport to indicate the results that would have actually been obtained had the merger been completed on the assumed date or for the periods presented, or which may be realized in the future. To produce the pro forma financial information, MediciNova allocated the purchase price using its best estimates of fair value. These estimates are based on the most recently available information. To the extent there are significant changes to MediciNova s or Avigen s business, including results from ongoing clinical trials, the assumptions and estimates herein could change significantly. The allocation is dependent upon certain estimates and assumptions. Accordingly, the pro forma purchase price allocations are preliminary, subject to further adjustments as additional information becomes available. Final valuations will be performed prior to, or shortly after, the Merger closing date. There can be no assurances that these final valuations will not result in material changes to the purchase price allocation. The unaudited pro forma condensed combined financial statements should be read in conjunction with the historical consolidated financial statements of MediciNova for the nine months ended September 30, 2009 and for the year ended December 31, 2008 included herein, and the historical consolidated financial statements of Avigen for the nine months ended September 30, 2009 and for the year ended December 31, 2008, also included herein.

Table of Contents

Unaudited Pro Forma Condensed Combined Balance Sheet

As of September 30, 2009

(Amounts in thousands)

	Historical MediciNova	Historical Avigen	Pro Forma Adjustments	Note Reference (Note 3)	Pro Forma Combined
Assets					
Current assets:					
Cash and cash equivalents	$ 25,645	$ 34,962	(3,008)	A	$ 57,776
			(1,500)	B	
			(330)	E	
			7	A,F	
			2,000	A,F	
Investment securities-current	21,390				21,390
Restricted cash and investments-current		2,941			2,941
ARS put-current	5,335				5,335
Accrued interest		7	(7)	F	
Prepaid expenses and other currents assets	893	199		A	1,092
Total current assets	53,263	38,109	(2,838)		88,534
Restricted investments		2,000	(2,000)	F	
Property and equipment, net	204	26		A	230
Acquired in-process research and development			3,686	A	3,686
Long-term investment securities	2,482				2,482
Deposit and other assets		205		A	205
Total assets	$ 55,949	$ 40,340	$ (1,152)		$ 95,137
Liabilities and Stockholders Equity					
Current liabilities:					
Accounts payable and other accrued liabilities	$ 430	$ 510	$	A	$ 940
ARS loan payable	17,651				17,651
Escrow holdback			1,500	A,B	1,500
Accrued expenses	1,522	39		A	1,561
Income taxes payable					
Accrued compensation and related expenses	493	1,547		A	2,040
Total current liabilities	20,096	2,096	1,500		23,692
Deferred rent and other liabilities		461		A	461
Total liabilities	20,096	2,557	1,500		24,153
Commitments					
Stockholders equity:					
Common stock	12	30	(30)	C	17
			5	D	
Additional paid-in capital	278,571	293,516	(293,516)	C	314,027
			35,456	D	
Accumulated other comprehensive income (loss)	(60)			C	(60)
Treasury stock	(1,235)				(1,235)
Deficit accumulated during development stage	(241,435)	(255,763)	255,763	C	(241,765)
			(330)	E	

Total stockholders equity	35,853	37,783	(2,652)	70,984
Total liabilities and stockholders equity	$ 55,949	$ 40,340	$ (1,152)	$ 95,137

See the accompanying Notes to Unaudited Pro Forma Condensed Combined Financial Statements.

Table of Contents

Unaudited Pro Forma Condensed Combined Statement of Operations

Nine Months Ended September 30, 2009

(Amounts in thousands, except per share amounts)

	Historical MediciNova	Historical Avigen	Reclassifications	Note Reference (Note 3)	Pro Forma Adjustments	Note Reference (Note 3)	Pro Forma Combined
Revenues	$	$ 103	$		$		$ 103
Operating expenses:							
Research and development	8,226	3,566				A	11,792
General and administrative	6,927	8,180	(603)	G	(2,267)	E	12,237
Total operating expenses	15,153	11,746	(603)		(2,267)		24,029
Operating loss	(15,153)	(11,643)	603		2,267		(23,926)
Gain on investment securities and ARS put, net	214						214
Foreign exchange (loss)/gain	(2)						(2)
Interest income, net	489	1,071					1,560
Income taxes	(1)					H	(1)
Sublease income		594	(594)	G			
Other income, net		9	(9)	G			
Net loss	$ (14,453)	$ (9,969)	$		$ 2,267		$ (22,155)
Basic and diluted net loss per common share	$ (1.20)	$ (0.33)					$ (1.28)
Shares used to compute basic and diluted net loss per common share	12,088	29,808					17,303

See the accompanying Notes to Unaudited Pro Forma Condensed Combined Financial Statements.

Table of Contents

Unaudited Pro Forma Condensed Combined Statement of Operations

Year Ended December 31, 2008

(Amounts in thousands, except per share amounts)

	Historical MediciNova	Historical Avigen	Reclassifications	Note Reference (Note 3)	Pro Forma Adjustments	Note Reference (Note 3)	Pro Forma Combined
Revenues	$	$ 7,100	$		$		$ 7,100
Operating expenses:							
Research and development	13,828	23,607	2,500	G			39,935
General and administrative	8,773	8,696	(113)	G			17,356
Impairment loss on long-lived assets		139	(139)	G			
In-license fees		2,500	(2,500)	G			
Total operating expenses	22,601	34,942	(252)				57,291
Operating loss	(22,601)	(27,842)	252				(50,191)
Impairment charge on investment securities and ARS put, net	(1,260)						(1,260)
Foreign exchange loss	(88)						(88)
Interest income, net	2,038	2,491					4,529
Income taxes	(14)						(14)
Sublease income		365	(365)	G			
Other income, net		(113)	113	G			
Net loss	$ (21,925)	$ (25,099)	$		$		$ (47,024)
Basic and diluted net loss per common share	$ (1.82)	$ (0.84)					$ (2.72)
Shares used to compute basic and diluted net loss per common share	12,072	29,766					17,287

See the accompanying Notes to Unaudited Pro Forma Condensed Combined Financial Statements.

Table of Contents

Notes to Unaudited Pro Forma Condensed Combined Financial Statements

1. Description of Transaction and Basis of Pro Forma Presentation

Description of Transaction. On August 20, 2009, MediciNova, Inc. (MediciNova), Absolute Merger, Inc., a wholly-owned subsidiary of MediciNova (Merger Sub), and Avigen, Inc. (Avigen) entered into an Agreement and Plan of Merger (the Merger Agreement). The Merger Agreement provides that, upon the terms and subject to the conditions set forth therein, Avigen will merge with and into Merger Sub with Avigen continuing as the surviving entity and wholly-owned subsidiary of MediciNova (the Merger).

Under the terms of the Merger Agreement, at the effective time of the Merger, each share of Avigen common stock (and the associated preferred stock purchase right) will be cancelled and extinguished and automatically converted into the right to receive:

one of the following:

- for each share of Avigen common stock with respect to which an election to receive cash has been made, the right to receive cash equal to the First Payment Consideration (as defined below) and Second Payment Consideration (as defined below), if any;

- for each share of Avigen common stock for which an election to receive secured convertible notes to be issued by MediciNova (the Convertible Notes, which will be governed by an indenture as described in the Merger Agreement) has been made, the right to receive Convertible Notes with a face value equal to the First Payment Consideration and Second Payment Consideration, if any; or

- for each share of Avigen common stock with respect to which no valid election has been made, the right to receive cash equal to 50 percent of the First Payment Consideration and Second Payment Consideration, if any, and Convertible Notes with a face value equal to 50 percent of the First Payment Consideration and Second Payment Consideration, if any; and

one Contingent Payment Right (CPR) granting the holder thereof the rights as per the Contingent Payment Rights Agreement (the CPR Agreement). The CPR Agreement provides for the payment of the following amounts on a pro rata basis:

- if the first milestone payment under its assignment agreement with Genzyme Corporation (the Genzyme Agreement) is received within 20 months of effective time of the Merger, $6,000,000 or such lesser cash amount paid by Genzyme;

- if the first milestone payment has not occurred and the Parkinson s Product, as defined in the Genzyme Agreement, is sold or otherwise disposed of by MediciNova within 20 months of the effective time of the Merger, 50 percent of the net proceeds of such sale or disposition received within such 20-month period; and

- if the trust established pursuant to Avigen s Management Transition Plan is terminated, the amount remaining in such trust upon termination (less any payments required to be made under Avigen s Management Transition Plan Trust Agreement)

All payments will be made on a pro rata basis. In each case, the payments will be net of any related taxes and out-of-pocket costs, damages, fines, penalties and expenses incurred by MediciNova. The CPRs will not be transferable, except in limited circumstances.

Pursuant to the terms of the Merger Agreement, outstanding options to purchase shares of Avigen common stock will be cancelled at the effective time of the Merger.

The First Payment Consideration, which is expected to be approximately $1.19 per share of Avigen common stock, is equal to $35,461,000 divided by the number of shares of Avigen common stock outstanding immediately prior to the effective time of the Merger. This aggregate First Payment Consideration is subject to

Table of Contents

downward adjustment (on a dollar for dollar basis) in the event that the aggregate cash liquidation proceeds of the marketable securities and restricted investments held by Avigen as of June 30, 2009 are less than $27,721,000. In the event that, prior to the effective time of the Merger, Avigen sells or otherwise disposes of its rights to the first milestone payment under the Genzyme Agreement, the aggregate First Payment Consideration will be increased by the amount received by Avigen pursuant to such transaction (and all such amounts will be excluded from the amounts payable under the CPR). Alternatively, in the event that, prior to the effective time of the Merger, Avigen sells or otherwise disposes of all of its rights under the Genzyme Agreement, the aggregate First Payment Consideration will be increased by the amount received by Avigen pursuant to such transaction less 50 percent of all amounts in excess of $6,000,000 (and all such amounts will be excluded from the amounts payable under the CPR).

The Second Payment Consideration is equal to the amount remaining in the escrow account described below following satisfaction of certain conditions.

Under the terms of an escrow agreement (the Escrow Agreement) to be entered into at the Merger closing, Avigen will deposit in an escrow account $1,500,000, or approximately $0.05 per share of Avigen common stock, plus the amount by which the aggregate cash liquidation proceeds of its marketable securities and restricted investments held as of June 30, 2009 exceed $28,021,000. After closing, MediciNova also will deposit into the escrow account certain payments, including royalties pursuant to an agreement between Avigen and Advanced Cell Technology, Inc. and excess cash amounts collected from subtenants at Avigen s current headquarters, to the extent such payments exceed specified amounts agreed upon by the parties.

Each Avigen shareholder may convert its Convertible Notes prior to the close of business on the final business day of each calendar month into the number of shares of MediciNova common stock equal to the principal amount of such Convertible Note multiplied by the conversion rate in effect at such time.

Basis of Pro Forma Presentation. These unaudited pro forma condensed combined financial statements assume that on the Merger closing date each share of Avigen common stock was cancelled and extinguished in exchange for Convertible Notes issued by MediciNova. In order to present the maximum dilution to MediciNova stockholders, it has been also assumed in the unaudited pro forma condensed combined financial statements that on the Merger closing date all Convertible Notes were converted into shares of MediciNova common stock at a conversion price of $6.80 per share, as per the Merger Agreement. Additionally, it is assumed that there is no beneficial conversion associated with the Convertible Notes. However, at the time of issuance, should the value of the MediciNova common stock exceed the $6.80 conversion price, MediciNova will record the appropriate beneficial conversion amount and amortize it over the term of the Convertible Note. With respect to the CPR, its payments have been deemed not probable and are not contemplated in the unaudited pro forma condensed combined financial statements as MediciNova cannot determine when, or if, the related milestones will be achieved or the events triggering the commencement of payment obligations will occur as of the date of this joint proxy statement/prospectus.

As of the date of this joint proxy statement/prospectus, MediciNova has not performed the detailed valuation analysis necessary to arrive at the final estimates of the fair value of the assets to be acquired and the liabilities to be assumed in connection with the proposed Avigen acquisition. The preliminary allocation of the purchase price of the Avigen acquisition (the preliminary PPA) used in these unaudited pro forma consolidated financial statements is based on MediciNova s preliminary estimates at the date of preparation of these pro forma financial statements. As a result of the finalization of this allocation after the acquisition s final completion (the final PPA), MediciNova expects to make adjustments to the preliminary PPA. Differences between the preliminary PPA and the final PPA could have a material impact on MediciNova s pro forma results of operations. Actual allocations will be based on the final valuation of fair value of, among other things, identifiable intangible assets at the acquisition date.

Table of Contents

2. Preliminary Purchase Price and Preliminary Purchase Price Allocation

The aggregate Merger consideration will be funded by Avigen s estimated cash of approximately $33.9 million and by $3.0 million of MediciNova s cash, or a total of approximately $36.9 million. The pro forma unaudited consolidated financial statements assume that all Avigen shareowners elected to receive the convertible security rather than cash at the Merger closing date. Furthermore, on the Merger closing date it is assumed that all of the Avigen shareowners elected to convert their respective convertible securities into MediciNova stock, thereby, the First Payment Consideration of approximately $35.4 million reverted to MediciNova as cash and that the Second Payment Consideration of $1.5 million (or escrow holdback) is recorded by MediciNova as a liability until the holdback period has lapsed and the corresponding stock is issued. Based on a preliminary valuation, as of September 30, 2009, the preliminary PPA was as follows (table in thousands):

Cash and cash equivalents	$ 31,954
Restricted cash and investments	2,941
Accrued interest	7
Prepaid expenses	199
Restricted investments long-term	2,000
Property and equipment, net	26
Deposits and other assets	205
Accounts payable	(510)
Accrued expenses	(39)
Accrued compensation	(1,547)
Deferred rent	(461)
Escrow holdback	(1,500)
Identifiable intangible assets	3,686
Net assets acquired and liabilities assumed	$ 36,961

The preliminary PPA is based upon management s estimates. These estimates and assumptions are subject to change upon final valuation.

For the purpose of these pro forma consolidated financial statements, the carrying value of all assets acquired, except for identifiable intangible assets, and all liabilities assumed approximates fair value.

Identifiable intangible assets. Identifiable intangible assets acquired has been attributed to the following categories (table in thousands):

Acquired in-process research and development (IPR&D) Genzyme Agreement	$ 3,686
Total	$ 3,686

The estimated fair value attributed to in-process research and development intangible assets represents an estimate of fair value of in-process technology related to Avigen s AV411 program, which at the Merger closing date, will not have received U.S. Food and Drug Administration (FDA) approval for any indication. As such, pursuant to ASC 805, amortization of the AV411 program will not occur until it reaches market feasibility.

Pursuant to the Merger Agreement, should Avigen not sell or otherwise dispose of its rights under the Genzyme Agreement, and in the event the respective Parkinson s product receives FDA approval, then, the second milestone payment in the Genzyme Agreement would revert to MediciNova. As MediciNova is unable at this time to estimate with certainty the likelihood of Avigen not selling or otherwise disposing of its rights under

Table of Contents

the Genzyme Agreement or the likelihood of the respective Parkinson s product receiving FDA approval, management did not assign any value to this contingency.

The allocation of the purchase price is preliminary. The final purchase price allocation will be based on the detailed fair valuation analysis to be performed by the Merger closing date, or shortly thereafter. Any excess of purchase consideration over the fair value of assets and liabilities acquired will be allocated to goodwill, any excess fair value of assets and liabilities acquired over the purchase consideration will be recorded as a gain. The final amounts allocated to assets and liabilities acquired could differ significantly from the amounts presented in the unaudited pro forma condensed combined financial statements.

3. Reclassifications and Pro Forma Adjustments

The following adjustments have been reflected in the unaudited pro forma condensed combined financial statements:

(A) To allocate the merger consideration to the acquired tangible and identifiable intangible assets as described above (see Note 2). There is no amortization on IPR&D as market feasibility has not yet been achieved.

(B) To record the $1.5 million escrow holdback liability, pursuant to the Escrow Agreement as described above (See Note 1).

(C) To eliminate Avigen s historical stockholders equity accounts.

(D) To reflect the issuance of approximately 5.2 million shares of MediciNova common stock to Avigen stockholders in connection with their elected conversion to MediciNova common stock at $6.80 per share pursuant to the Merger Agreement terms. The shares amount was derived from the total of the First Payment Consideration of approximately $35.5 million divided by the $6.80 conversion price. Pro forma combined shares used to compute basic and diluted net loss per common share reflect the sum of the newly issued 5.2 million shares and Medicinova s historical shares for each of the periods presented.

(E) MediciNova estimates that the expenses incurred by MediciNova on a stand-alone basis for this transaction will be approximately $1.4 million, of which approximately $1.1 million was incurred through the nine months ended September 30, 2009 and approximately $0.3 million will be reflected as an expense of MediciNova in the period the expense is incurred. Avigen estimates that expenses incurred by Avigen on a stand-alone basis for this transaction will be approximately $1.5 million, of which approximately $1.2 million was incurred through the nine months ended September 30, 2009 and approximately $0.3 million will be reflected as an expense of Avigen in the period the expense is incurred. These costs include fees for investment banking services, legal, valuation, due diligence, tax, printing and other various services necessary to complete the transaction.

The estimate of future transaction expenses of MediciNova are reflected in the pro forma balance sheet as of September 30, 2009 as a reduction to cash and a charge to accumulated deficit of approximately $0.3 million. The estimate of future transaction expenses of Avigen of $0.3 million is already included as a reduction to cash as part of the agreed upon adjustments described in (B) above. Because they will not have a continuing impact, the combined actual incurred transaction expenses for MediciNova and Avigen of approximately $2.3 million during the nine months ended September 30, 2009 have been eliminated and are not reflected in the unaudited pro forma condensed combined statement of operations for the nine months ended September 30, 2009.

(F) To reclassify Avigen s investment securities and restricted investments which will be liquidated to cash and cash equivalents prior to the Merger closing date and to reclassify Avigen s accrued interest as it will be received in cash prior to the Merger closing date.

(G) Reclassifications to conform to MediciNova s income statement presentation.

(H) The tax effect of the above pro forma adjustments was calculated at the statutory rate and was determined to be zero because of the availability of net operating loss (NOL) and R&D credit carry

Table of Contents

forwards. Utilization of the NOL and R&D credit carry forwards may be subject to annual limitation due to ownership change limitations provided by the Section 382 of the IRS Code, as well as similar state provisions. It is expected that the combined company will continue to provide a full valuation allowance on its deferred tax assets.

4. Sensitivity Analysis

As previously stated in the basis of presentation, these unaudited pro forma condensed combined financial statements assume that 100 percent of Avigen shareowners elected the Convertible Notes option and 100 percent of the Convertible Notes were converted into shares of MediciNova common stock on the Merger closing date. Any change to these assumptions would impact the unaudited pro forma condensed combined balance sheet and the amount of shares used to compute basic and diluted earnings per share; however, there would be no meaningful impact to the unaudited pro forma condensed combined statement of operations. If the assumed conversion rate of the Convertible Notes was 50 percent at the Merger closing date, then the unaudited pro forma condensed combined cash and cash equivalents balance would be approximately $38.5 million (approximately $19.3 million less) and total assets would be approximately $75.9 million (approximately $19.3 million less). Shares used to compute pro forma combined basic and diluted earnings per share would be approximately 14.5 million, a reduction of 2.8 million shares, and basic and diluted net loss per share would be $1.53 and $3.25, at September 30, 2009 and December 31, 2008, respectively.

Table of Contents

DESCRIPTION OF COMMON STOCK

MediciNova has authority to issue 30,000,000 shares of MediciNova common stock, par value $0.001 per share. As of September 30, 2009, MediciNova had 12,099,588 shares of MediciNova common stock issued and outstanding and 1,709,149 shares reserved for issuance. The transfer agent and registrar for MediciNova common stock is American Stock Transfer & Trust Company, LLC.

Subject to preferences that may be applicable to any shares of preferred stock outstanding from time to time, if any, the holders of MediciNova common stock are entitled to the following:

Dividends. The holders of outstanding shares of MediciNova common stock are entitled to receive dividends out of assets legally available for the payment of dividends at the times and in the amounts as MediciNova s board of directors from time to time may determine, subject to any preferential dividend rights of any holder of outstanding shares of MediciNova s preferred stock.

Voting. Each holder of MediciNova common stock is entitled to one vote for each share of MediciNova common stock held on all matters submitted to a vote of MediciNova stockholders, including the election of directors. MediciNova has not provided for cumulative voting for the election of directors in its restated certificate of incorporation. This means that the holders of a majority of the shares voted can elect all of the directors then standing for election.

Preemptive rights, conversion and redemption. MediciNova common stock is not subject to preemptive rights and will not be subject to conversion or redemption.

Liquidation, dissolution and winding-up. Upon MediciNova s liquidation, dissolution or winding-up, the holders of MediciNova common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preferences of any preferred stock.

Each outstanding share of MediciNova common stock is duly and validly issued, fully paid and non-assessable.

Delaware Anti-Takeover Law

MediciNova is subject to the provisions of Section 203 of the Delaware General Corporation Law regulating corporate takeovers. In general, these provisions prohibit a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years following the date that the stockholder became an interested stockholder, unless:

- prior to such time, the board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85 percent of the voting stock of the corporation outstanding at the time the transaction commenced; or
- on or after the date the business combination is approved by the board of directors and authorized at a meeting of stockholders, by at least two-thirds of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 defines business combination to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;

Table of Contents

any sale, transfer, pledge or other disposition (in one transaction or a series of transactions) of 10 percent or more of either the aggregate market value of all the assets of the corporation or the aggregate market value of all the outstanding stock of the corporation involving the interested stockholder;

subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;

any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation owned by the interested stockholder; or

the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15 percent or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by any of these entities or persons.

The statute could prohibit or delay mergers or other takeover or change in control attempts and, accordingly, may discourage attempts to acquire MediciNova.

Removal of Directors and Vacancies

MediciNova s restated certificate of incorporation and amended and restated bylaws provide that directors may be removed only for cause and only by the affirmative vote of the holders of a majority of shares of capital stock present in person or by proxy and entitled to vote. Under MediciNova s restated certificate of incorporation and amended and restated bylaws, any vacancy on the board of directors, including a vacancy resulting from an enlargement of the board of directors, may be filled only by vote of a majority of the directors then in office. The limitations on the ability of MediciNova stockholders to remove directors and fill vacancies could make it more difficult for a third-party to acquire, or discourage a third-party from seeking to acquire, control of MediciNova.

Stockholder Meetings

MediciNova s restated certificate of incorporation and amended and restated bylaws provide that any action required or permitted to be taken by stockholders at an annual meeting or special meeting of stockholders may only be taken if it is properly brought before such meeting and may not be taken by written action in lieu of a meeting. MediciNova s restated certificate of incorporation and amended and restated bylaws also provide that, except as otherwise required by law, special meetings of the stockholders can only be called by the chairman of the board, the chief executive officer or the board of directors. In addition, MediciNova s amended and restated bylaws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of stockholders, including proposed nominations of candidates for election to the board of directors. Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of the board of directors, or by a stockholder of record on the record date for the meeting who is entitled to vote at the meeting and who has delivered timely written notice in proper form to the secretary of the stockholder s intention to bring such business before the meeting. These provisions could have the effect of delaying until the next stockholder meeting stockholder actions that are favored by the holders of a majority of MediciNova s outstanding voting securities.

Undesignated Preferred Stock

The authorization in MediciNova s restated certificate of incorporation of 500,000 shares, par value $0.01 per share, of undesignated preferred stock makes it possible for the board of directors, without obtaining further stockholder approval, to issue preferred stock with voting rights or other rights or preferences that could impede the success of any attempt to take control of MediciNova.

Table of Contents

Rights Plan

MediciNova currently has a stockholder rights plan in effect, pursuant to which each share of MediciNova common stock includes an attached preferred stock purchase right. The rights have certain anti-takeover effects. The rights will cause substantial dilution to any person or group that attempts to acquire a 20 percent share of the voting power of MediciNova without MediciNova s approval. Because the MediciNova board of directors can redeem the rights or approve an acquisition offer, the rights generally should not interfere with any merger or other business combination approved by the board of directors. MediciNova s board of directors may amend the terms of the rights in any manner prior to the time the rights are triggered.

Table of Contents

DESCRIPTION OF CONVERTIBLE NOTES

MediciNova will issue the Convertible Notes under the Indenture by and between MediciNova and American Stock Transfer & Trust Company, LLC, trustee. The terms of the Convertible Notes include those expressly set forth in the Indenture and the Convertible Notes and those made a part of the Indenture by reference to the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act.

The following description is a summary of the material provisions of the Convertible Notes, the Indenture and the trust agreement and does not purport to be complete. This summary is subject to and is qualified in its entirety by all the provisions of the Convertible Notes, the Indenture and the trust agreement. The full text of the form of the Indenture, with the form of Notes attached thereto, and the form of the trust agreement is attached as Annex C and Annex D, respectively, to this joint proxy statement/prospectus and are incorporated herein by reference. MediciNova and Avigen urge you to read the Indenture because it, and not this description, defines the rights of the Noteholders.

Ranking

The Convertible Notes will be MediciNova s general secured senior obligations that rank senior in right of payment to MediciNova s future subordinated indebtedness, if any, and structurally subordinated to the existing and future indebtedness and other liabilities of any of MediciNova s subsidiaries.

The Convertible Notes will rank senior to MediciNova s unsecured senior debt to the extent of the assets securing the Convertible Notes. In the event of MediciNova s bankruptcy, liquidation, reorganization or other winding up, the assets securing the Convertible Notes will be available to pay obligations on the Convertible Notes.

As of September 30, 2009, MediciNova had approximately $17.7 million of outstanding indebtedness under the ARS Loan.

Payment at Maturity

The Convertible Notes will mature on the 18-month anniversary of the completion of the Merger. At maturity, MediciNova will pay the aggregate principal amount of the Convertible Notes together with all accrued interest to Noteholders. Accrued interest will not be paid at any other time. With respect to global notes, principal and interest will be paid by the paying agent, which will initially be the trustee, to the depositary in immediately available funds. With respect to any certificated securities, principal and interest will be payable at MediciNova s office or agency, which initially will be the office or agency of the trustee.

Security

Under the terms of a trust agreement by and between MediciNova, American Stock Transfer & Trust Company, LLC, as trust agent and securities intermediary, and American Stock Transfer & Trust Company, LLC, acting in the capacity of property agent for the benefit of the Noteholders, MediciNova will grant a security interest in or pledge certain assets as security for the full and final payment and performance of its obligations under the Convertible Notes. These assets include the initial principal amount of the Convertible Notes to be deposited into a segregated trust account at completion of the Merger, the additional principal amount of the Convertible Notes to be deposited into such trust account on June 30, 2010 as part of the Second Payment Consideration, if any, all rights of MediciNova against the trust agent or any clearing broker for the trust agent in connection with the trust account, all securities, stocks, bonds, mutual fund shares, U.S. Treasury instruments and other investment property and financial assets now or hereafter reflected as maintained in the trust account, together with any and all proceeds, replacements or substitutions therefor, and all proceeds of every kind or nature, and in whatever form (including both cash and non-cash) received now or in the future upon the sale or other disposition of any of the foregoing, collectively the property.

Table of Contents

Interest

Provided no event of default has occurred and is continuing, the principal amount of the Convertible Notes will be invested at MediciNova s direction in United States government securities within the meaning of Section 2(a)(16) of the Investment Company Act, having a maturity of 180 days or less or in money market funds meeting certain conditions under Rule 2a-7 under the Investment Company Act. All interest from such investments will be capitalized to the Convertible Notes. MediciNova will furnish to Noteholders a statement setting forth the principal amount of the Convertible Notes at the close of each fiscal quarter as well as information regarding the amount of interest capitalized to such Convertible Notes during such fiscal quarter within 45 days of the end of each fiscal quarter.

Conversion Procedures

Each Noteholder generally may convert its Convertible Notes prior to the close of business on the final business day of each calendar month into the number of shares of MediciNova common stock equal to the principal amount of such Convertible Note multiplied by the conversion rate in effect at such time, as described below. Each share of MediciNova common stock that is issued upon the conversion of a Convertible Note will be accompanied by an associated preferred stock purchase right pursuant to the Rights Agreement by and between MediciNova and American Stock Transfer & Trust Company, LLC, as rights agent, dated November 28, 2006. Upon conversion, the Noteholder will not receive any separate cash payment for accrued and unpaid interest, if any.

Noteholders holding their interests in certificated securities must complete and manually sign the conversion notice on the back of their Convertible Notes, or a facsimile of such conversion notice, deliver such conversion notice, which is irrevocable, and the Convertible Note to the conversion agent on or prior to the applicable conversion date, furnish appropriate endorsements and transfer documents as may be required by the conversion agent, pay funds equal to the amount of applicable withholding taxes, if required, and pay certain other transfer and similar taxes. Noteholders holding a beneficial interest in a global security must comply with the depositary s procedures for converting a beneficial interest in global securities, pay funds equal to the amount of applicable withholding taxes, if required, and pay certain other taxes and duties, if required.

As promptly as practicable on or after each conversion date and in any event within ten business days thereafter, MediciNova will issue the number of whole shares of MediciNova common stock issuable upon conversion, with any fractional shares (after aggregating all Convertible Notes being converted by a Noteholder on such date) rounded down to the nearest whole share of MediciNova common stock. In addition, MediciNova will deliver cash for the current market value of the fractional share, which will be determined to the nearest 1/1,000th of a share by multiplying the closing price of a full share of MediciNova common stock on the conversion date by the fractional amount and rounding the product to the nearest whole cent. MediciNova s delivery to the Noteholder of the full principal amount of the Convertible Note in shares of MediciNova common stock into which a Convertible Note is convertible together with any cash payment for any fractional share will be deemed to satisfy in full MediciNova s obligation to pay the principal amount of the Convertible Note and accrued and unpaid interest, if any, to, but not including, the date of conversion. As a result, accrued and unpaid interest, if any, to, but not including, the conversion date will be deemed to be paid in full rather than cancelled, extinguished or forfeited.

If any Convertible Note is converted under the terms of the Indenture, the portion of the property corresponding to the principal amount (and any accrued interest thereon of such Convertible Note) held in the trust account will be retained by MediciNova in accordance with the trust agreement.

Conversion Rate; Adjustments

The initial conversion rate for the Convertible Notes is the quotient of 1 and $6.80, or approximately 0.14706. The Convertible Notes carry anti-dilution adjustments which may be triggered by specified changes to MediciNova s capitalization as a result of certain issuances of MediciNova common stock as a dividend or

Table of Contents

distribution on its common stock and share splits or share combinations. The Indenture also provides for anti-dilution adjustments upon the occurrence of (1) distributions to all or substantially all holders of MediciNova common stock of rights, warrants or options entitling them, for a period of not more than 45 calendar days, to subscribe for or purchase MediciNova common stock at a price per share less than market value (provided that, to the extent that such rights, warrants or options are not transferable and are not exercised prior to their expiration or shares of MediciNova common stock are otherwise not delivered pursuant to such rights, warrants or options upon the exercise of such rights, warrants or options, then the unexercised or undelivered warrants will not affect the conversion rate of the Convertible Notes), (2) distributions of shares of certain capital stock, evidences of indebtedness or other assets, property or rights or warrants to acquire capital stock of other securities to all or substantially all holders of MediciNova common stock and certain spin-off transactions, (3) payment of dividends or distributions consisting exclusively of cash to all or substantially all MediciNova stockholders and (4) payments of cash or other consideration in respect of a tender offer or exchange offer for all or any portion of MediciNova common stock, where such cash and the value of any such other consideration exceed the fair market value of MediciNova common stock.

Consolidation, Merger and Sale of Assets

The Indenture provides that MediciNova generally may not consolidate with or merge with or into any other corporation or convey or transfer its properties and assets substantially as an entirety to any person, unless:

- the successor entity which must be a corporation organized and existing under the laws of any state of the United States or the District of Columbia, any country comprising the European Union, the United Kingdom or Japan expressly assumes, by a supplemental indenture, the due and punctual payment of the principal of and interest on all the Convertible Notes and the performance of every obligation in the Indenture and the Convertible Notes on the part of MediciNova to be performed or observed and provides for conversion rights in accordance with the provisions of the Indenture and the Convertible Notes and if any such successor entity is not subject to the jurisdiction of any state of the United States or the District of Columbia, such entity submits to jurisdiction for all purposes with respect to the Convertible Notes and appoints an agent for service of process in the United States;

- immediately after giving effect to such transaction or series of transactions, no event of default or event which, after notice or lapse of time, or both, would become an event of default, shall have occurred and be continuing; and

- either MediciNova or the successor entity shall have delivered to the trustee an officers certificate and an opinion of counsel, each stating that such consolidation, merger, conveyance, transfer or lease and, if a supplemental indenture is required in connection with such transaction, such supplemental indenture complies with the Indenture and that all conditions precedent in the Indenture provided for relating to such transaction have been complied with.

For purposes of the foregoing, the sale, lease, conveyance, assignment, transfer, or other disposition of all or substantially all of the properties and assets of one or more subsidiaries, which property and assets, if held by MediciNova instead of such subsidiaries, would constitute all or substantially all of the properties and assets of the MediciNova on a consolidated basis, will be deemed to be the transfer of all or substantially all of the properties and assets of MediciNova.

Under the Indenture, upon the occurrence of certain reorganization events in which the surviving corporation s equity securities are registered with the SEC, MediciNova will execute with the trustee a supplemental indenture providing that at the effective time of the reorganization event each Convertible Note will be convertible into the kind and amount of shares of stock, other securities or other property or assets that a holder of a number of shares of MediciNova common stock equal to the conversion rate immediately prior to such reorganization event would have been entitled to upon such reorganization event. But, upon the occurrence of certain other reorganization events in which the surviving corporation s equity securities are not registered

Table of Contents

with the SEC, the conversion feature of the Convertible Notes will be eliminated and the principal and interest on any outstanding Convertible Notes will be due and payable at maturity. In such a reorganization, even where the surviving corporation s equity securities will not be registered with the SEC, a Noteholder may surrender Convertible Notes for conversion at any time from and after the 15th trading day prior to the anticipated effective date of such event until the business day immediately prior to the effective date of such event.

Events of Default; Notice and Waiver

Each of the following will be an event of default with respect to the Convertible Notes:

- default in the payment of the principal of or interest on any Convertible Note when due and payable at maturity;
- failure by MediciNova to deliver shares of MediciNova common stock required to be delivered upon conversion of a Convertible Note within ten business days after the applicable conversion date;
- failure on the part of MediciNova duly to observe or perform any other of the covenants in the Convertible Notes, in the Indenture or in the trust agreement (other than default in performance of a covenant that is specifically dealt with elsewhere) and in any such case the continuance of such failure for a period of 30 days after the date on which written notice of such failure will have been given to MediciNova by the trustee or the Noteholders of not less than 25 percent in aggregate principal amount of the outstanding Convertible Notes;
- default by MediciNova or any subsidiary with respect to any mortgage, agreement or other instrument under which there may be outstanding, or by which there may be secured or evidenced, any debt for money borrowed in excess of $5.0 million in the aggregate of MediciNova and/or any such subsidiary, whether such debt now exists or will hereafter be created, which default results (1) in such debt becoming or being declared due and payable and such debt has not been discharged in full or such declaration rescinded or annulled within 30 days or (2) from a failure to pay the principal of any such debt when due and payable at its stated maturity, upon required repurchase, upon declaration or otherwise and such defaulted payment will not have been made, waived or extended within 30 days;
- failure by MediciNova or any subsidiary, within 30 calendar days, to pay, bond or otherwise discharge any judgments or orders for the payment of money the total uninsured amount of which for MediciNova or any subsidiary exceeds in the aggregate $1.0 million, which are not stayed on appeal;
- the trust agreement ceases to be in full force and effect or enforceable prior to its expiration in accordance with its terms; or
- certain events of bankruptcy, insolvency or reorganization of MediciNova or any of its significant subsidiaries.

The Indenture will provide that if an event of default occurs and is continuing, the trustee by notice to MediciNova, or the Noteholders of at least 25 percent in aggregate principal amount of the outstanding Convertible Notes by notice to MediciNova and the trustee may, and the trustee at the request of such Noteholders will, declare 100 percent of the principal of and accrued and unpaid interest, if any, on all Convertible Notes to be due and payable. In case of certain events of bankruptcy, insolvency or reorganization involving MediciNova or any significant subsidiary, 100 percent of the principal of and accrued and unpaid interest, if any, on the Convertible Notes automatically will become due and payable. Upon such a declaration, such principal and accrued and unpaid interest will be due and payable immediately.

Noteholders representing not less than a majority in principal amount of the outstanding Convertible Notes may on behalf of all Noteholders waive any past default hereunder with respect to the Convertible Notes and its consequences, except a default:

in the payment of the principal of or interest, if any, on any Convertible Note;

in respect of the right to convert any Convertible Note in accordance with the terms of the Indenture; or

Table of Contents

in respect of a covenant or provision that cannot be modified or amended without the consent of the holder of each outstanding Convertible Note affected.

Upon any such waiver, such default will cease to exist, and any event of default arising therefrom will be deemed to have been cured, for every purpose of the Indenture, but no such waiver will extend to any subsequent or other default or event of default or impair any right consequent thereon.

Subject to the provisions of the Indenture relating to the duties of the trustee, if an event of default occurs and is continuing, the trustee will be under no obligation to exercise any of the rights or powers under the Indenture at the request or direction of any of the Noteholders unless such Noteholders have offered to the trustee indemnity or security reasonably satisfactory to it against any loss, liability or expense. No Noteholder may pursue any remedy with respect to the Indenture or the Convertible Notes unless:

such Noteholder has previously given the trustee written notice that an event of default is continuing;

Noteholders of at least 25 percent in principal amount of the outstanding Convertible Notes have requested the trustee to pursue the remedy;

such Noteholders have offered the trustee reasonable security or indemnity satisfactory to it against any loss, liability or expense to be incurred in compliance with such request;

the trustee has not complied with such request within 60 days after the receipt of the request and the offer of security or indemnity; and

the Noteholders of a majority in principal amount of the outstanding Convertible Notes have not given the trustee a direction that in the opinion of the trustee, is inconsistent with such request within such 60-day period.

Subject to certain restrictions, Noteholders representing a majority in principal amount of the outstanding Convertible Notes are given the right to direct the time, method and place of conducting any proceeding for a remedy available to the trustee or of exercising any trust or power conferred on the trustee. The trustee, however, may refuse to follow any direction that conflicts with law or the Indenture or that the trustee determines is unduly prejudicial to the rights of any other Noteholder or that would involve the trustee in personal liability. Prior to taking any action under the Indenture, the trustee will be entitled to indemnification satisfactory to it in its sole discretion against all losses and expenses caused by taking or not taking such action.

The Indenture will provide that if an event of default has occurred and is continuing, the trustee will be required in the exercise of its powers to use the degree of care that a prudent person would use under the circumstances in the conduct of its own affairs. The Indenture will provide that if a default occurs and is continuing and is known to the trustee, the trustee must send to each Noteholder notice of the default within 90 days after it occurs or, if later, promptly after the trustee obtains knowledge thereof. Except in the case of a default in the payment of principal of or interest on any Convertible Note, the trustee may withhold notice if and so long as the trustee in good faith determines that withholding notice is in the interests of the Noteholders.

Trust Agreement

Under the trust agreement, an event of default will be deemed to have occurred upon notice of an event of default under the Indenture, delivered to the property agent, by either the Avigen Representative (as defined in the Merger Agreement) or any Noteholders representing at least 25 percent. Noteholders representing at least 25 percent, by written notice to the property agent and trust agent, may rescind and annul such declaration and its consequences and such event of default will cease to exist, and any event of default arising therefrom will be deemed to have been cured for every purpose of the trust agreement and in the event the Avigen Representative, any Noteholders representing at least 25 percent or any other Noteholders representing at least 25 percent disagree on whether an event of default has occurred and is continuing, the actions of the party representing the greater percentage of Noteholders will control. Following an event of default, the trust agent may be asked by the property agent to deliver control of the property to the property agent to manage for the benefit of the Noteholders.

237

Table of Contents

Modification and Amendment

Without the consent of any Noteholders, MediciNova may amend the Indenture for any of the following purposes:

- to evidence the succession of another person to MediciNova and the assumption by any such successor of the covenants of MediciNova in the Indenture and in the Convertible Notes;
- to add to the covenants of MediciNova for the benefit of the Noteholders or to surrender any right or power herein conferred upon MediciNova;
- to add any additional events of default for the benefit of the Noteholders;
- to evidence and provide for the acceptance of appointment hereunder by a successor trustee with respect to the Convertible Notes; or
- to cure any ambiguity, to correct or supplement any provision herein which may be inconsistent with any other provision herein, or to make any other provisions with respect to matters or questions arising under this Indenture, provided that such action shall not adversely affect the interests of the Noteholders in any material respect.

With the consent of Noteholders representing not less than a majority in aggregate principal amount of all Convertible Notes, MediciNova may amend the Indenture for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of the Indenture that affect the Convertible Notes or of modifying in any manner the rights of Noteholders, provided, however, that no such amendment may, without the consent of each Noteholder affected thereby:

- change the maturity date, reduce the principal amount of, or interest payable on the Convertible Notes, reduce the amount thereof provable in bankruptcy, change the currency of payment or place of payment where any Convertible Note or any principal of or interest thereon is payable, impair the right to institute suit for the enforcement of any such payment on or after the maturity date thereof or adversely affect any right to convert any Convertible Note;
- reduce the percentage in principal amount of the Convertible Notes, the consent of whose Noteholders is required for any amendment, or the consent of whose Noteholders is required for any waiver (of compliance with the Indenture or certain defaults hereunder and their consequences) provided for in the Indenture, or reduce the requirements for quorum or voting; or
- modify any of the provisions of the Indenture related to the waiver of past defaults or supplemental indentures, except to increase the percentage of Noteholders whose consents are required or to provide that certain other provisions of the Indenture cannot be modified or waived without the consent of each Noteholder affected thereby.

Information Concerning the Trustee

MediciNova has appointed American Stock Transfer & Trust Company, LLC, the trustee under the Indenture, as paying agent, conversion agent, notes registrar and custodian for the Convertible Notes. The trustee or its affiliates may also provide other services to MediciNova in the ordinary course of their business. The Indenture contains certain limitations on the rights of the trustee, if it or any of its affiliates is then MediciNova s creditor, to obtain payment of claims in certain cases or to realize on certain property received on any claim as security or otherwise. The trustee and its affiliates will be permitted to engage in other transactions with MediciNova. However, if the trustee or any affiliate continues to have any conflicting interest and a default occurs with respect to the Convertible Notes, the trustee must eliminate such conflict or resign.

Rights of Noteholder

The rights of a Noteholder are limited to those expressed in the Convertible Notes and the Indenture. The Convertible Notes will not entitle the Noteholders, by virtue of their ownership of Convertible Notes, to any of the rights of a MediciNova stockholder.

Table of Contents

Transferability of Convertible Notes

The Convertible Notes will be offered and sold in a registered offering and therefore generally will be transferable without restriction under the securities laws. However, the Convertible Notes are a new issue of securities for which there is currently no trading market, and no trading market for the Convertible Notes may develop or be sustained. MediciNova does not intend to list the Convertible Notes on any national securities exchange. If an active trading market for the Convertible Notes fails to develop or be sustained, the liquidity and trading prices of the Convertible Notes could be adversely affected.

Table of Contents

COMPARISON OF STOCKHOLDER RIGHTS AND CORPORATE GOVERNANCE MATTERS

MediciNova and Avigen both are incorporated under Delaware law. Any differences, therefore, in the rights of holders of MediciNova common stock and Avigen common stock arise primarily from differences in their respective certificates of incorporation and bylaws. Upon completion of the Merger, the restated certificate of incorporation and amended and restated bylaws of MediciNova in effect immediately prior to the effective time of the Merger will be the certificate of incorporation and bylaws of the combined company. Consequently, after the effective time of the Merger, the rights of former Avigen stockholders will be determined by reference to the MediciNova s certificate of incorporation and bylaws to the extent they receive Convertible Notes in the Merger and elect to subsequently convert. The material differences between the rights of holders of MediciNova common stock and the rights of holders of Avigen common stock, resulting from the differences in their governing corporate instruments, are summarized below. This summary contains a list of the material differences but is not meant to be relied upon as an exhaustive list or a detailed description of the provisions discussed and is qualified in its entirety by reference to the General Corporation Law of the State of Delaware and the governing instruments of MediciNova and Avigen, to which you are referred. The governing instruments are subject to amendment in accordance with their terms. Copies of the governing corporate instruments are available, without charge, to any person, including any beneficial owner to whom this joint proxy statement/prospectus is delivered, by following the instructions listed under Where You Can Find More Information.

	Avigen	MediciNova
Authorized Capital Stock	Avigen is authorized under its amended and restated certificate of incorporation to issue 105,000,000 shares consisting of two classes, common stock and preferred stock. 100,000,000 shares of common stock, par value $0.001, and 5,000,000 shares of preferred stock, par value $0.001, are authorized.	MediciNova is authorized under its restated certificate of incorporation, as amended, to issue 30,500,000 shares consisting of two classes, common stock and preferred stock. 30,000,000 shares of common stock, par value $0.001, and 500,000 shares of preferred stock, par value $0.01, are authorized.
Preferred Stock	The preferred stock may be issued from time to time in one or more series with such preferences, limitations, and relative rights of each series of preferred stock. 300,000 shares of preferred stock, $0.001 par value per share, currently are designated as series A junior participating preferred stock under Avigen s certificate of designation of series A junior participating preferred stock.	The preferred stock may be issued from time to time in one or more series with such preferences, limitations and relative rights of each series of preferred stock. 250,000 shares of preferred stock, par value $0.01 per share, currently are designated as series A participating preferred stock under MediciNova s certificate of designation of series A participating preferred stock.
Number of Directors	Avigen s amended and restated certificate of incorporation provides that the number of directors be fixed exclusively by one or more resolutions adopted by the board of directors. Currently the number of members of Avigen s board of directors is six.	MediciNova s restated certificate of incorporation, as amended, provides that the authorized number of directors be determined from time to time by resolution adopted by the affirmative vote of a majority of the entire board of directors at any regular or special meeting of such board of directors, within any limits prescribed in the amended and restated bylaws. Currently the number of members of MediciNova s board of directors is six.

Table of Contents

	Avigen	MediciNova
Classification of Board of Directors	Avigen s amended and restated certificate of incorporation provides that the board of directors be divided into three classes. Each class serves for a term of three years, subject to a director s earlier death, resignation or removal.	MediciNova s restated certificate of incorporation, as amended, provides that the board of directors be divided into three classes, as nearly equal in number as possible. Each director serves for a period of three years, subject to a director s earlier death, resignation or removal.
Removal of Directors	Avigen s amended and restated certificate of incorporation provides that, subject to the rights of the holders of any series of preferred stock, the board of directors or any individual director may be removed from office at any time (i) with cause by the affirmative vote of the holders of a majority of the voting power of all the then-outstanding shares of voting stock of the corporation, entitled to vote at an election of directors or (ii) without cause by the affirmative vote of the holders of at least 66 2/3 percent of the voting power of all the then-outstanding shares of the voting stock.	MediciNova stockholders may remove any MediciNova director only for cause and only upon an affirmative vote of the holders of a majority of the shares then entitled to vote at an election of directors.
Vacancies on the Board of Directors	Avigen s amended and restated certificate of incorporation provides that subject to the rights of the holders of any series of preferred stock, any vacancies on the board of directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors, may, unless the board of directors determines by resolution that any such vacancies or newly created directorships may be filled by Avigen stockholders, only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the board of directors, and not by the stockholders. Any director elected accordingly will hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director s successor has been elected and qualified.	MediciNova s restated certificate of incorporation, as amended, provides that newly created directorships resulting from any increase in the authorized number of directors or any vacancies on the board of directors resulting from death, resignation, disqualification, removal or another cause may be filled only by the affirmative vote of a majority of the remaining directors then in office, even though less than a quorum of the board of directors. Any director elected in accordance with the preceding sentence will hold office for the remainder of the full term of the class of directors in which the new directorship was created or in which the vacancy occurred, and until such director s successor has been duly elected and qualified or until his or her earlier resignation, removal from office, death or incapacity. No decrease in the number of directors may shorten the term of any incumbent director.
Power of Stockholders to Act by Written Consent	Avigen s amended and restated certificate of incorporation provides that no action may be taken by the stockholders by written consent.	MediciNova s restated certificate of incorporation, as amended, provides that no action may be taken by the stockholders by written consent.

Table of Contents

	Avigen	MediciNova
Special Meeting of Stockholders	Avigen s amended and restated certificate of incorporation provides that special meetings of the stockholders of Avigen may be called, for any purpose or purposes, by (1) the chairman of the board of directors, (2) the chief executive officer, (3) the board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the board of directors for adoption) or (4) by the holders of the shares entitled to cast not less that ten percent of the votes at the meeting.	MediciNova s restated certificate of incorporation, as amended, provides that special meetings of the stockholders of MediciNova may be called only by the chairman of the board or the chief executive officer of MediciNova or by a resolution adopted by the affirmative vote of a majority of the board of directors.
Amendment of Certificate of Incorporation	Avigen s amended and restated certificate of incorporation provides that in addition to any affirmative vote of the holders of any particular class or series of the voting stock required by law, the certificate of incorporation, or any preferred stock designation, the affirmative vote of the holders of at least 66 2/3 percent of the voting power of all of the then-outstanding shares of the voting stock, voting together as a single class, is required to alter, amend or repeal Articles V, VI and VII. Any repeal or modification of Article VI will be prospective and will not affect the rights under Article VI in effect at the time of the alleged occurrence of any act or omission to act giving rise to liability or indemnification.	MediciNova s restated certificate of incorporation, as amended, provides that the affirmative vote of the holders of at least 66 2/3% of the voting power of all of the then outstanding shares of the stock of MediciNova entitled to vote generally in the election of directors, voting together as a single class, is required to amend in any respect or repeal any provision of Articles VI, VII, VIII, IX or X. Any repeal or modification of Article VIII may not adversely affect any right or protection existing hereunder immediately prior to such repeal or modification.
Amendment of Bylaws	Avigen s amended and restated certificate of incorporation provides that the bylaws may be altered or amended or new bylaws adopted by the affirmative vote of at least 66 2/3 percent of the voting power of all of the then-outstanding shares of the voting stock. The board of directors also has the power to adopt, amend, or repeal bylaws.	MediciNova s restated certificate of incorporation, as amended, provides that any adoption, amendment or repeal of the bylaws by the board of directors requires the approval of at least 66 2/3 percent of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships). The stockholders also have the power to adopt, amend or repeal the bylaws; provided, however, that in addition to any vote of the holders of any class or series of stock required, the affirmative vote of the holders of at least 66 2/3 percent of the voting power of all of the then outstanding shares of stock entitled to vote generally in the election of directors, voting together as a single class, is required for such adoption, amendment or repeal by the stockholders of any provisions of the bylaws.

Table of Contents

	Avigen	MediciNova
Rights Plan	Avigen currently has a stockholder rights plan in effect, pursuant to which each share of Avigen common stock includes an attached preferred stock purchase right. The rights have certain anti-takeover effects. The rights will cause substantial dilution to any person or group that attempts to acquire a 20 percent share of the voting power of Avigen without Avigen s approval following adoption of the plan. Because the Avigen board of directors can redeem the rights or approve an acquisition offer, the rights generally should not interfere with any merger or other business combination approved by the board of directors. Avigen s board of directors may amend the terms of the rights in any manner prior to the time the rights are triggered. In connection with the execution of the Merger Agreement, Avigen and American Stock Transfer & Trust Company, LLC, as rights agent, entered into an amendment to the stockholder rights agreement, pursuant to which neither MediciNova nor its affiliates will be deemed to be an acquiring person as a result of the execution and delivery of the Merger Agreement, the consummation of the Merger, or the consummation of the transactions contemplated by the Merger Agreement. Under the amendment, the execution of the Merger Agreement, the consummation of the Merger, and the consummation of the transactions contemplated by the Merger Agreement will be deemed not to trigger the issuance or exercise of the rights. In addition, pursuant to the amendment, the stockholder rights agreement and the rights thereof will expire upon consummation of the Merger.	MediciNova currently has a stockholder rights plan in effect, pursuant to which each share of MediciNova common stock includes an attached preferred stock purchase right. The rights have certain anti-takeover effects. The rights will cause substantial dilution to any person or group that attempts to acquire a 20 percent share of the voting power of MediciNova without MediciNova s approval. Because the MediciNova board of directors can redeem the rights or approve an acquisition offer, the rights generally should not interfere with any merger or other business combination approved by the board of directors. MediciNova s board of directors may amend the terms of the rights in any manner prior to the time the rights are triggered.
Stockholder Proposals and Nominations	Avigen s amended and restated bylaws specify that stockholder proposals may be made pursuant to the notice of meeting given by or at the direction of Avigen s board of directors, otherwise properly brought before the meeting by or at the direction of Avigen s board of directors or otherwise properly brought before the	MediciNova s amended and restated bylaws specify that stockholder proposals may be made pursuant to the notice of meeting given by or at the direction of MediciNova s board of directors or chief executive officer, otherwise properly brought before the meeting by MediciNova s board of directors or chief

Table of Contents

Avigen	MediciNova
meeting by an Avigen stockholder. Avigen s notice procedures require that a stockholder s notice be delivered to or mailed and received at the principal executive offices of the corporation not later than the close of business on the 60th day nor earlier than the close of business on the 90th day prior to the first anniversary of the preceding year s annual meeting; provided, however, that in the event that no annual meeting was held in the previous year or the date of the annual meeting has been changed by more than 30 days from the date contemplated at the time of the previous year s proxy statement, notice by the stockholder to be timely must be so received not earlier than the close of business on the 90th day prior to such annual meeting and not later than the close of business on the later of the 60th day prior to such annual meeting or, in the event public announcement of the date of such annual meeting is first made by the corporation fewer than 70 days prior to the date of such annual meeting, the close of business on the 10th day following the day on which public announcement of the date of such meeting is first made by Avigen. Nominations of persons for election to Avigen s board of directors may be made at a meeting of stockholders by or at the direction of the board of directors or by any Avigen stockholder entitled to vote in the election of directors at the meeting who complies with the requisite notice procedures.	executive officer or by MediciNova stockholder of record who complies with the requisite notice procedures. MediciNova s notice procedures require that a stockholder s proposal be received by the secretary of MediciNova not earlier than 90 days nor more than 120 days in advance of the date the proxy statement was released to the stockholders in connection with the previous year s annual meeting of stockholders; provided, however, that in the event that no annual meeting was held in the previous year or the date of the annual meeting has been changed by more than 30 days from the date contemplated at the time of the previous year s proxy statement, notice by the stockholder must be received by the secretary of MediciNova not later than the close of business on the later of the 90th day prior to such annual meeting and the 7th day following the day on which public announcement of the date of such meeting is first made. Nominations of persons for election to the MediciNova s board of directors by or at the direction of the board of directors may be made by any nominating committee or person appointed by the board of directors; nominations may also be made by any stockholder of record entitled to vote for the election of directors at the applicable meeting who complies with the notice procedures set forth in the preceding sentence.

Table of Contents

LEGAL MATTERS

The validity of the securities offered by this joint proxy statement/prospectus has been passed upon by Dechert LLP, Washington, D.C. Certain federal income tax consequences of the Merger will be passed upon for MediciNova by Dechert LLP and for Avigen by Cooley Godward Kronish LLP.

EXPERTS

The consolidated financial statements of MediciNova, Inc. at December 31, 2008 and 2007, and the related consolidated statements of operations and cash flows for each of the three years in the period ended December 31, 2008 and for the period from September 26, 2000 (inception) through December 31, 2008 and for the statements of stockholders equity for the period from September 26, 2000 (inception) to December 31, 2000 and for each of the eight years in the period ended December 31, 2008, included in the joint proxy statement of MediciNova, Inc. and Avigen, Inc., which is referred to and made part of this Prospectus and Registration Statement, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The financial statements of Avigen, Inc. at December 31, 2008 and 2007, and for each of the years in the three-year period ended December 31, 2008 included in this joint proxy statement/prospectus, have been audited by Odenberg, Ullakko, Muranishi & Co. LLP, independent registered public accounting firm, as set forth in their report, appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The financial statements of Avigen, Inc. for the period from inception (October 22, 1992) through December 31, 2005, included in the related joint proxy statement/prospectus of MediciNova, Inc. and Avigen, Inc., which is referred to and made part of this Prospectus and Registration Statement of MediciNova, Inc., have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

MediciNova and Avigen make periodic filings and other filings required to be filed by them as reporting companies under Sections 13 and 15(d) of the Exchange Act. You may read and copy any materials that MediciNova or Avigen file with the SEC at the SEC s Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains an Internet site at *www.sec.gov* that contains the reports, proxy and information statements, and other information that MediciNova and Avigen file with the SEC. You may also obtain free copies of the documents that (1) MediciNova files with the SEC by going to the Investor Relations section of MediciNova s website, *www.medicinova.com*, and (2) Avigen files with the SEC by going to the Investors section of Avigen s website, *www.avigen.com*. Information contained on MediciNova s or Avigen s website is not incorporated into this joint proxy statement/prospectus, and you should not consider information contained on either website to be part of this joint proxy statement/prospectus or any supplement thereto.

Table of Contents

MediciNova, Inc.

Consolidated Financial Statements

Years Ended December 31, 2008, 2007 and 2006 and

Three and Nine Months Ended September 30, 2009 and 2008 (unaudited)

	Page
Report of Independent Registered Public Accounting Firm	FI-2
Consolidated Financial Statements for the Years Ended December 31, 2008, 2007 and 2006	
Consolidated Balance Sheets	FI-3
Consolidated Statements of Operations	FI-4
Consolidated Statements of Stockholders Equity	FI-5
Consolidated Statements of Cash Flows	FI-9
Notes to Consolidated Financial Statements	FI-10
Financial Statements for the Three and Nine Months Ended September 30, 2009 and 2008 (unaudited)	
Consolidated Balance Sheets	FI-29
Consolidated Statements of Operations	FI-30
Consolidated Statements of Cash Flows	FI-31
Notes to Consolidated Financial Statements	FI-32

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders

MediciNova, Inc.

We have audited the accompanying consolidated balance sheets of MediciNova, Inc. (a development stage company) as of December 31, 2008 and 2007, and the related consolidated statements of operations and cash flows for each of the three years in the period ended December 31, 2008 and for the period from September 26, 2000 (inception) through December 31, 2008, and for the statements of stockholders equity for the period from September 26, 2000 (inception) to December 31, 2000 and for each of the eight years in the period ended December 31, 2008. These financial statements are the responsibility of the Company s management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the company s internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company s internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of MediciNova, Inc. (a development stage company) at December 31, 2008 and 2007, and the results of its consolidated operations and its cash flows for each of the three years in the period ended December 31, 2008 and the period from September 26, 2000 (inception) through December 31, 2008, and the consolidated statements of stockholders equity for the period from September 26, 2000 (inception) to December 31, 2000 and each of the eight years in the period ended December 31, 2008, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP

San Diego, California

March 27, 2009

Table of Contents

MEDICINOVA, INC.

(a development stage company)

CONSOLIDATED BALANCE SHEETS

	December 31, 2008	December 31, 2007
Assets		
Current assets:		
Cash and cash equivalents	$ 19,297,284	$ 18,778,938
Marketable securities available-for-sale (Note 2)		51,856,571
Prepaid expenses and other current assets	718,317	2,443,612
Total current assets	20,015,601	73,079,121
Property and equipment, net	368,299	673,317
Long-term investments (Note 2)	24,047,314	
Long-term asset (Note 2)	5,792,701	
Total assets	$ 50,223,915	$ 73,752,438
Liabilities and Stockholders Equity		
Current liabilities:		
Accounts payable	$ 392,572	$ 2,880,462
Accrued expenses	1,011,916	3,619,861
Income taxes payable	9,748	20,000
Accrued compensation and related expenses	765,147	620,604
Total current liabilities	2,179,383	7,140,927
Deferred rent		3,310
Total liabilities	2,179,383	7,144,237
Commitments		
Stockholders equity:		
Common stock, $0.001 par value; 30,000,000 shares authorized at December 31, 2008 and 20,000,000 shares authorized at December 31, 2007; 12,072,027 shares issued at December 31, 2008 and 2007	12,072	12,072
Additional paid-in capital	276,361,775	273,189,063
Accumulated other comprehensive loss	(29,744)	(131,466)
Treasury stock, at cost; 87,314 shares at December 31, 2008 and 124,581 shares at December 31, 2007	(1,317,362)	(1,404,088)
Deficit accumulated during the development stage	(226,982,209)	(205,057,380)
Total stockholders equity	48,044,532	66,608,201
Total liabilities and stockholders equity	$ 50,223,915	$ 73,752,438

See accompanying notes.

Table of Contents

MEDICINOVA, INC.

(a development stage company)

CONSOLIDATED STATEMENTS OF OPERATIONS

	Years ended December 31,			Period from September 26, 2000 (inception) to December 31, 2008
	2008	2007	2006	
Revenues	$	$	$ 263,877	$ 1,558,227
Operating expenses:				
Cost of revenues			146,607	1,258,421
Research and development	13,827,651	42,121,095	32,170,847	133,672,698
General and administrative	8,773,695	11,372,873	9,623,956	78,660,707
Total operating expenses	22,601,346	53,493,968	41,941,410	213,591,826
Operating loss	(22,601,346)	(53,493,968)	(41,677,533)	(212,033,599)
Impairment charge, net on long-term investments and long-term asset	(1,259,984)			(1,259,984)
Foreign exchange loss	(88,159)			(88,159)
Other income, net	2,038,219	4,610,724	5,987,922	17,796,214
Income taxes	(13,559)	(20,000)		(33,559)
Net loss	(21,924,829)	(48,903,244)	(35,689,611)	(195,619,087)
Accretion to redemption value of redeemable convertible preferred stock				(98,445)
Deemed dividend resulting from beneficial conversion feature on Series C redeemable convertible preferred stock				(31,264,677)
Net loss applicable to common stockholders	$ (21,924,829)	$ (48,903,244)	$ (35,689,611)	$ (226,982,209)
Basic and diluted net loss per common share	$ (1.82)	$ (4.16)	$ (3.52)	
Shares used to compute basic and diluted net loss per share	12,072,027	11,752,139	10,130,920	

See accompanying notes.

Table of Contents

MEDICINOVA, INC.

(a development stage company)

CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY

	Convertible preferred stock		Common stock							
	Shares	Amount	Shares	Amount	Additional paid-in capital	Deferred Compensation	Accumulated other comprehensive loss	Treasury stock	Deficit accumulated during the development stage	Total stockholders equity
Issuance of common stock for cash to founders at $1.00 per share in September		$	50,000	$ 50	$ 49,950	$	$	$	$	$ 50,000
Issuance of Series A convertible preferred stock at $10 per share in October	500,000	5,000			4,995,000					5,000,000
Net loss and comprehensive loss									(201,325)	(201,325)
Balance at December 31, 2000	500,000	5,000	50,000	50	5,044,950				(201,325)	4,848,675
Issuance of Series A convertible preferred stock at $10 per share in August	500,000	5,000			4,995,000					5,000,000
Net loss and comprehensive loss									(1,794,734)	(1,794,734)
Balance at December 31, 2001	1,000,000	10,000	50,000	50	10,039,950				(1,996,059)	8,053,941
Net loss and comprehensive loss									(6,931,476)	(6,931,476)
Balance at December 31, 2002	1,000,000	10,000	50,000	50	10,039,950				(8,927,535)	1,122,465
Issuance of Series B convertible preferred stock at $100 per share, net of issuance costs of $1,093,453, in March, April, May and December	107,500	1,075			9,655,472					9,656,547
Net loss and comprehensive loss									(6,209,130)	(6,209,130)
Balance at December 31, 2003	1,107,500	11,075	50,000	50	19,695,422				(15,136,665)	4,569,882
Issuance of Series B convertible preferred stock at $100 per share, net of issuance costs of $1,208,896, in January, February, March, April and May	183,650	1,837			17,154,267					17,156,104
Stock-based compensation related to founders warrants					34,069,916					34,069,916
Deferred employee stock-based compensation					1,419,300	(1,419,300)				
Amortization of deferred employee stock-based						224,579				224,579
Deemed dividend resulting from beneficial conversion feature on Series C redeemable convertible preferred stock					31,264,677				(31,264,677)	
Accretion to redemption value of redeemable convertible preferred stock									(78,756)	(78,756)
Net loss and comprehensive loss									(48,272,603)	(48,272,603)
Balance at December 31, 2004	1,291,150	12,912	50,000	50	103,603,582	(1,194,721)			(94,752,701)	7,669,122

Table of Contents

MEDICINOVA, INC.

(a development stage company)

CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY (Continued)

	Convertible preferred stock		Common stock							
	Shares	Amount	Shares	Amount	Additional paid-in capital	Deferred Compensation	Accumulated other comprehensive loss	Treasury stock	Deficit accumulated during the development stage	Total stockholders equity
Issuance of common stock in initial public offering at $38.80 per share in February			3,000,000	3,000	104,483,895					104,486,895
Issuance of common stock upon partial exercise of over-allotment option at $38.80 per share in March			157,300	157	5,557,616					5,557,773
Issuance costs for registration statement filed on behalf of restricted stockholders					(165,476)					(165,476)
Conversion of redeemable convertible preferred stock into common stock in February			2,766,785	2,767	43,499,998					43,502,765
Conversion of convertible preferred stock into common stock in February	(1,291,150)	(12,912)	3,911,500	3,911	9,001					
Stock-based compensation related to acceleration of option vesting upon employee termination and subsequent reissuance of a fully vested option					127,875					127,875
Amortization of deferred employee stock-based compensation, net of						311,282				311,282

cancelations								
Cancelation of stock options issued to employees and related deferred compensation			(84,000)	84,000				
Accretion to redemption value of redeemable convertible preferred stock							(19,689)	(19,689)
Purchase of treasury stock at $11.10 per share in December						(55,445)		(55,445)
Comprehensive loss:								
Net loss							(25,692,135)	(25,692,135)
Accumulated other comprehensive loss					(15,188)			(15,188)
Total comprehensive loss								(25,707,323)
Balance at December 31, 2005	9,885,585	9,885	257,032,491	(799,439)	(15,188)	(55,445)	(120,464,525)	135,707,779

Table of Contents

MEDICINOVA, INC.

(a development stage company)

CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY (Continued)

	Convertible preferred stock		Common stock		Additional paid-in capital	Deferred Compensation	Accumulated other comprehensive loss	Treasury stock	Deficit accumulated during the development stage	Total stockholders equity
	Shares	Amount	Shares	Amount						
Cashless warrant exercises of 260,000 in February, April and August			260,000	260	(260)					
Warrant exercises of 275,000 shares at $1.00 per share in March and August			275,000	275	274,725					275,000
Write off balance of deferred employee stock-based compensation as of 12/31/05					(799,439)	799,439				
Option exercises of 1,400 shares at $10.00 per share in May and August			1,400	2	13,998					14,000
Amortization of deferred employee stock-based compensation					2,090,182					2,090,182
Purchase of treasury stock from $10.30 $13.10 per share in February, March, May, June, July, September and October								(1,382,425)		(1,382,425)
Comprehensive loss:										
Net loss									(35,689,611)	(35,689,611)
Accumulated other comprehensive loss							(34,017)			(34,017)
Total Comprehensive loss										(35,723,628)
Balance at December 31, 2006			10,421,985	10,422	258,611,697		(49,205)	(1,437,870)	(156,154,136)	100,980,908

Table of Contents

MEDICINOVA, INC.

(a development stage company)

CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY (Continued)

	Convertible preferred stock		Common stock		Additional paid-in capital	Deferred Compensation	Accumulated other comprehensive loss	Treasury stock	Deficit accumulated during the development stage	Total stockholders equity
	Shares	Amount	Shares	Amount						
Cashless warrant exercises of 650,047 in January and September			650,047	650	(650)					
Issuance of common stock in a public offering at $12.00 per share in February			1,000,000	1,000	10,638,600					10,639,600
Employee stock-based compensation					3,939,416					3,939,416
Issuance of shares under an employee stock purchase plan at $6.72								33,782		33,782
Comprehensive loss:										
Net loss			(5)						(48,903,244)	(48,903,244)
Accumulated other comprehensive loss							(82,261)			(82,261)
Total comprehensive loss										(48,985,505)
Balance at December 31, 2007			12,072,027	12,072	273,189,063		(131,466)	(1,404,088)	(205,057,380)	66,608,201
Employee stock-based compensation					3,172,712					3,172,712
Issuance of shares under an employee stock purchase plan at $2.33 average								86,726		86,726
Comprehensive loss:										
Net loss									(21,924,829)	(21,924,829)
Accumulated other comprehensive loss							101,722			101,722
Total comprehensive loss										(21,823,107)
Balance at December 31, 2008	$		12,072,027	$ 12,072	$ 276,361,775	$	$ (29,744)	$ (1,317,362)	$ (226,982,209)	$ 48,044,532

FI-8

Table of Contents

MEDICINOVA, INC.

(a development stage company)

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years ended December 31,			Period from September 26, 2000 (inception) to December 31,
	2008	2007	2006	2008
Operating activities:				
Net loss	$ (21,924,829)	$ (48,903,244)	$ (35,689,611)	$ (195,619,087)
Adjustments to reconcile net loss to net cash used in operating activities:				
Non-cash stock-based compensation	3,172,712	3,939,416	2,090,182	43,935,962
Depreciation and amortization	305,018	516,013	437,392	1,576,096
Amortization of premium/discount on marketable securities	(691,706)	(170,576)	(745,766)	(2,476,420)
Impairment charge, net on long-term investments and long-term asset	1,259,984			1,259,984
Impairment of sublease			35,259	35,259
Changes in operating assets and liabilities:				
Prepaid expenses and other assets	1,725,295	4,225,382	(4,110,465)	(718,317)
Accounts payable, income tax payable, accrued expenses and deferred rent	(5,109,397)	(3,678,280)	4,420,998	1,414,236
Accrued compensation and related expenses	144,543	212,600	(497,012)	765,147
Net cash used in operating activities	(21,118,380)	(43,858,689)	(34,059,023)	(149,827,140)
Investing activities:				
Purchases of marketable securities available-for-sale	(2,000,000)	(41,712,645)	(108,173,406)	(377,205,766)
Maturities or sales of marketable securities available-for-sale	23,550,000	85,662,087	114,191,364	348,553,451
Acquisition of property and equipment		(380,709)	(208,999)	(2,236,499)
Proceeds from sales of property and equipment		62,024		256,845
Net cash provided by / (used in) investing activities	21,550,000	43,630,757	5,808,959	(30,631,969)
Financing activities:				
Net proceeds from the sale of common stock		10,672,374	289,000	120,890,566
Sale of preferred stock, net of issuance costs				80,216,971
Purchase of treasury stock, net of employee stock purchases	86,726		(1,382,425)	(1,351,144)
Net cash provided by / (used in) financing activities	86,726	10,672,374	(1,093,425)	199,756,393
Net increase / (decrease) in cash and cash equivalents	518,346	10,444,442	(29,343,489)	19,297,284
Cash and cash equivalents, beginning of period	18,778,938	8,334,496	37,677,985	
Cash and cash equivalents, end of period	$ 19,297,284	$ 18,778,938	$ 8,334,496	$ 19,297,284
Supplemental disclosure of non-cash investing and financing activities:				
Conversion of convertible preferred stock into common stock upon initial public offering	$	$	$	$ 43,515,677
Unrealized loss on marketable securities available-for-sale	$	$ (39,813)	$ (34,017)	$ (89,018)
Supplemental disclosure of non-cash operating and investing activities:				
Reclassification of current marketable securities available-for-sale to long-term investments	$ (24,047,314)	$	$	$ (24,047,314)
Supplemental disclosures of cash flow information:				
Income taxes paid	$ 24,528	$	$	$ 24,528

Interest paid	$	$	$	$

See accompanying notes.

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

1. The Company, Basis of Presentation and Summary of Significant Accounting Policies

The Company

We were incorporated in the state of Delaware in September 2000. We are a development stage biopharmaceutical company focused on acquiring and developing novel, small molecule therapeutics for the treatment of diseases with unmet medical need with a specific focus on the U.S. market. Through strategic alliances primarily with Japanese pharmaceutical companies, we hold rights to a diversified portfolio of clinical and preclinical product candidates, each of which we believe has a well-characterized and differentiated therapeutic profile, attractive commercial potential and patent assets having claims of commercially adequate scope.

Basis of Presentation

Our primary activities since incorporation have been organizational activities, including recruiting personnel, establishing office facilities, conducting research and development, performing business and financial planning and raising capital. Accordingly, we are considered to be in the development stage as defined by SFAS No. 7, *Accounting and Reporting by Development Stage Enterprises*.

We have sustained operating losses since inception and expect such losses to continue over the next several years. Management plans to continue financing the operations with equity issuances, debt arrangements or a combination thereof. We expect current working capital to be sufficient to fund our operations through December 31, 2009. If adequate future funds are not available, we may be required to delay, reduce the scope of or eliminate one or more of our research or development programs, or cease operations. During the first quarter of 2005, we completed our initial public offering (IPO) of 3,000,000 shares of common stock in Japan for proceeds of $104.5 million, net of estimated underwriting discounts and commissions and offering costs. In December 2006, we were listed on the Nasdaq Global Market. Accordingly, we are a public company in both the United States and Japan, as our stock is traded on both the Nasdaq Global Market and the Hercules Market of the Osaka Securities Exchange.

Principles of Consolidation

The consolidated financial statements include the accounts of MediciNova, Inc. and its wholly-owned subsidiaries. MediciNova, Inc. and its subsidiaries are collectively referred to herein as we, our or us. We do not have any interests in any variable interest entities.

On December 13, 2006, MediciNova (Europe) Limited, a wholly-owned subsidiary of MediciNova, Inc., was incorporated under the laws of England and Wales and established for the purpose of facilitating the clinical development of our compounds for the European marketplace. MediciNova (Europe) Limited s functional currency is the U.S. dollar, the reporting currency of its parent.

On January 4, 2007, MediciNova Japan, Inc., a wholly-owned subsidiary of MediciNova, Inc., was incorporated under the laws of Japan and established to strengthen business development and investor and public relations activities in Japan and other Asian countries. MediciNova Japan, Inc. s functional currency is the U.S. dollar, the reporting currency of its parent.

All intercompany transactions and investments in our subsidiaries have been eliminated in consolidation.

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

Use of Estimates

The preparation of consolidated financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results may differ from these estimates under different assumptions or conditions.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash and other highly liquid investments with original maturities of three months or less from the date of purchase. Cash equivalents at December 31, 2008 consisted primarily of 90-day certificates of deposits at multiple institutions all less than the current FDIC limits and money market funds.

Marketable Securities Available-for-sale

Investments with maturity of more than three months on the date acquired are considered short-term investments and have been classified by us as marketable securities available-for-sale. Marketable securities available-for-sale consist principally of auction rate securities (ARS), corporate debt securities and government sponsored securities with AAA ratings at the time they were acquired. Such investments are carried at fair value, with unrealized gains and losses, if any, included as a separate component of stockholders equity (deficit). Fair value for debt securities and government sponsored securities is determined by the most recently traded price of each security as of the balance sheet date and fair value of ARS is determined by a discounted cash flow valuation model with assumptions being made with regard to interest rates, liquidity, the credit quality of the issuer and the underlying collateral, the length of time and extent to which the market value (if any) has been less than cost and our intent and ability to retain the security in order to allow for an anticipated recovery of our cost basis. The cost of marketable securities available-for-sale is based on the specific identification method.

During the fiscal year ended December 31, 2008, our marketable securities available-for-sale which consisted of corporate debt securities and government-sponsored securities matured and were converted into cash equivalents. At December 31, 2008, all of our remaining marketable securities available-for-sale, which consisted of ARS, were designated as trading securities and have been classified as long-term investments due to the time frame in which we can readily convert these securities into cash. At December 31, 2007, our marketable securities available-for-sale included $45.0 million of municipal ARS that were issued through syndicated offerings, $2.7 million of ARS issued through private placements, $0.7 million of corporate debt securities and $3.5 million of government-sponsored securities. At December 31, 2007, although there were no issues with the credit quality of any of our securities, we did record an unrealized loss of $0.1 million in our consolidated statement of stockholders equity (deficit) when we lowered the carrying value of our private placement ARS to their estimated market value, which had decreased due to the failed auctions these securities began experiencing in August 2007 which continued through 2008. If the credit ratings of any of our security issuers further deteriorates and any decline in market value is determined to be other-than-temporary, we would adjust the carrying value of the investment through an impairment charge, that would be recorded as realized loss in our consolidated statement of operations.

Long-term Investments and Long-term Asset

Our long-term investments consist of ARS, all of which had AAA ratings at the time of purchase, that principally represent interests in municipal bonds, government-guaranteed student loans, insurance notes and portfolios of securities (primarily commercial paper), and our long-term asset consists of an ARS Put (described

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

below). At December 31, 2008, $21.9 million of our ARS consisted primarily of municipal bonds and government-guaranteed student loan securities and $2.1 million of our ARS consisted of private placement securities. None of the underlying collateral for our ARS consisted of subprime mortgages or collateralized debt obligations. At December 31, 2008, our ARS have been classified as long-term given the estimated time frame in which we can readily convert these securities into cash.

ARS are generally long-term debt instruments that historically have provided liquidity through a Dutch auction process that resets the applicable interest rate at predetermined calendar intervals, typically seven, 28, 35 or 49 days. Due to continued negative conditions in the global credit markets, our ARS have continued to fail at auction with few trades in either the primary or the secondary markets. As such, with the required adoption of SFAS No. 157 as of January 1, 2008, we determined the fair value of our ARS portfolio primarily on Level 3 criteria as prescribed by the accounting standard, which resulted in our reliance on a discounted cash flow valuation model with assumptions related to interest rates, maturities and liquidity determined by us based on the credit quality of the security, the credit quality of the associated insurer, if applicable, the respective prospectuses, and the credit market outlook.

In August 2008, UBS and its affiliates (UBS), the brokerage firm through which we purchased the majority of our ARS investments, entered into a settlement with the SEC, the New York Attorney General and other state agencies. Under the settlement, UBS issued to us the Auction Rate Security Rights, which would allow us to sell to UBS our ARS held in accounts with UBS (ARS Rights Offer). Pursuant to the ARS Rights Offer, we received the right to sell to UBS the ARS held in accounts with UBS at par value at any time during the period beginning June 30, 2010 and ending July 2, 2012 (ARS Put). As part of the settlement, UBS also offered to us a no net cost loan program (ARS Loan), whereby we would be able to borrow up to 75% of the market value, as determined by UBS at its sole discretion, of our ARS that have been pledged as collateral at an interest cost that would not exceed the interest being paid on the underlying ARS investments. Under the ARS Loan program, UBS may demand full or partial payment of the ARS Loan, at its sole option and without cause, at any time. In November 2008, we accepted the ARS Rights Offer. In January 2009, we were approved for the ARS Loan in the amount of $15.9 million and drew down the entire preapproved amount. In addition, in February 2009, we borrowed an additional $2.2 million under the ARS Loan, bringing the total amount outstanding under the ARS Loan to $18.1 million, following UBS decision to increase our availability under the ARS Loan. All cash received under the ARS Loan was invested in money market accounts.

We elected to measure the ARS Put under the fair value option of SFAS 159 to mitigate the volatility in reported earnings due to the linkage of certain of our ARS and the ARS Put. The fair value of the ARS Put was also determined by a discounted cash flow valuation model effectively using a liquidity discount of approximately 7% and an interest rate of approximately 5%, which took into consideration the brokerage firm s weighted average cost of capital. Based on our discounted cash flow valuation, we recorded a gain of $5.8 million in our consolidated statement of operations. In addition, we recorded the ARS Put as a long-term asset in our consolidated balance sheet as the ARS Put is not exercisable until June 2010, at the earliest.

Concentration of Credit Risk

Financial instruments that potentially subject us to a significant concentration of credit risk consist primarily of cash, cash equivalents, marketable securities available-for-sale and long-term investments. We maintain deposits in federally insured financial institutions in excess of federally insured limits. However, management believes we are not exposed to significant credit risk due to the financial position of the depository institutions in which those deposits are held. Additionally, we have established guidelines regarding diversification of our investments and their maturities, which are designed to maintain safety and liquidity.

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

Fair Value of Financial Instruments

Financial instruments, including cash and cash equivalents, accounts payable and accrued liabilities, are carried at cost, which we believe approximates fair value given their short-term nature.

Property and Equipment

Property and equipment, net, which consists of leasehold improvements, furniture and equipment and software, is stated at cost. Leasehold improvements, furniture and equipment, and software are depreciated using the straight-line method over the estimated useful lives of the related assets. The useful life for furniture, equipment (other than computers) and software is five years, computers is three years and leasehold improvements are amortized over the lesser of the useful life or the term of the lease. Our current lease expires in August 2011.

Impairment of Long-Lived Assets

We review long-lived assets, including property and equipment, for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable. An impairment loss would be recognized when estimated undiscounted future cash flows expected to result from the use of the asset and its eventual disposition are less than its carrying amount. The impairment loss, if recognized, would be based on the excess of the carrying value of the impaired asset over its respective fair value. Impairment, if any, is assessed using discounted cash flows.

Revenue Recognition

In connection with the management of clinical trials, we pay, pursuant to our contracts, fees to investigators and other pass-through costs for which we are reimbursed at cost, without mark-up or profit. In addition, we charge management fees based on negotiated hourly rates pursuant to master services agreements with Asahi Kasei Pharma Corporation and Argenes, Inc. We recognize management fees based on actual hours worked and recognize pass-through expenses as revenue when the related liability is incurred in accordance with Emerging Issues Task Force (EITF) Rule No. 01-14, *Income Statement Characterization of Reimbursements Received for Out-of-Pocket Expenses Incurred*. EITF No. 01-14 requires reimbursable pass-through expenses incurred to be characterized as revenue in the statement of operations. Pass-through costs represent the majority of cost of revenues for all periods in which we have recorded revenue.

Research and Development

Research and development expenses consist of costs incurred to further our research and development activities and include salaries and related employee benefits, costs associated with clinical trials, costs associated with non-clinical activities such as toxicology testing, regulatory activities, research-related overhead expenses, and fees paid to external service providers who conduct certain research and development activities on our behalf. We use external service providers and vendors to conduct clinical trials, to manufacture product candidates to be used in clinical trials and to provide various other products and services related to our product development programs. Research and development expenses also include fees for licensed technology for which technological feasibility has not been established and there are no alternative uses. Research and development costs are expensed as incurred or accrued based on certain contractual factors such as for estimates of work performed, milestones achieved, patient enrollment and experience with similar contracts. As actual costs become known, accruals are adjusted. To date, our estimates have not differed significantly from the actual costs incurred.

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

Income Taxes

In accordance with Statement of Financial Accounting Standards (SFAS) No. 109, *Accounting for Income Taxes*, a deferred tax asset or liability is determined based on the difference between the financial statement and the tax basis of assets and liabilities as measured by the enacted tax rates, which will be in effect when these differences reverse. We provide a valuation allowance against net deferred tax assets unless, based upon the available evidence, it is more likely than not that the deferred tax assets will be realized.

In July 2006, the Financial Accounting Standards Board (FASB) issued Interpretation No. 48, *Accounting for Uncertainty in Income Taxes An Interpretation of FASB Statement No. 109* (FIN 48). FIN 48 clarifies the accounting for uncertainty in income taxes recognized in an entity s financial statements in accordance with FASB Statement No. 109, *Accounting for Income Taxes*, and prescribes a recognition threshold and measurement attributes for financial statement disclosure of tax positions taken or expected to be taken on a tax return. Under FIN 48, the impact of an uncertain income tax position on the income tax return must be recognized at the largest amount that is more-likely-than-not to be sustained upon audit by the relevant taxing authority. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained. Additionally, FIN 48 provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition.

We adopted the provisions of FIN 48 on January 1, 2007. As a result of the adoption of FIN 48, we had no cumulative effect adjustment, and therefore no change to the January 1, 2007 balance in retained earnings. At January 1, 2007, December 31, 2007 and December 31, 2008, we had no unrecognized tax benefits that, if recognized, would affect our effective income tax rate in future periods.

Our practice is to recognize interest and/or penalties related to income tax matters in income tax expense. We had no accrued interest or penalties at January 1, 2007, December 31, 2007 or December 31, 2008.

We are subject to taxation in the United States, California and foreign jurisdictions, of which currently no years are under examination. Our tax years for 2000 and forward are subject to examination by the U.S. and state tax authorities due to the carryforward of unutilized net operating losses and research and development credits. At December 31, 2008, income taxes relate to income earned by our Japanese subsidiary, MediciNova Japan, Inc.

Stock-Based Compensation

We grant stock options to our employees, directors and consultants under the MediciNova, Inc. Amended and Restated 2004 Stock Incentive Plan (the 2004 Plan), the successor to the MediciNova, Inc. 2000 General Stock Incentive Plan (the 2000 Plan). No additional stock options have been or will be issued under the 2000 Plan subsequent to our IPO. Stock options issued to non-employees were recorded at their fair value as determined in accordance with EITF Issue No. 96-18, *Accounting for Equity Instruments that are Issued to Other than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*.

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

The exercise price of stock options granted during the years ended December 31, 2008, 2007 and 2006 were either equal to market value or at a price above market value on the date of grant. During the years ended December 31, 2008, 2007 and 2006, options to purchase 615,540, 151,000 and 1,702,891 shares of common stock, respectively, were granted and stock-based compensation expense for such stock options is reflected in operating results during fiscal years 2008, 2007 and 2006. The estimated fair value of each stock option award was determined on the date of grant using the Black-Scholes option valuation model with the following weighted-average assumptions for stock option grants:

	Year Ended December 31,	
	2008	2007
Risk-free interest rate	3.00%	4.64%
Expected volatility of common stock	69.00%	69.00%
Dividend yield	0.00%	0.00%
Expected option term (in years)	4.00	4.00

The risk-free interest rate assumption is based upon observed interest rates appropriate for the expected term of our employee stock options. The expected volatility is based on the weighted average volatility of our stock price, factoring in changes in the daily share price, and the volatility of stock prices of certain peers within our industry sector and management s judgment. We have not paid any dividends on common stock since our inception and do not anticipate paying dividends on our common stock in the foreseeable future. The expected life of employee stock options represents the average of the life of the options and the average vesting period based on management s judgment given the progression of our prioritized clinical program.

As stock-based compensation expense recognized in the accompanying consolidated statement of operations for the years ended December 31, 2008, 2007 and 2006 were based on awards ultimately expected to vest, such expense should be reduced for estimated forfeitures. SFAS No. 123R requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. We have very few employees, our turnover has been minimal and our stock options vest monthly; therefore, we did not estimate any forfeitures in fiscal 2008 and will adjust our stock-based compensation expense should any forfeitures occur. Our determination of fair value is affected by our stock price, as well as a number of assumptions that require judgment. The weighted-average fair value of each stock option granted during the years ended December 31, 2008, 2007 and 2006, estimated as of the grant date using the Black-Scholes option valuation model, was $2.37 per option, $5.27 per option and $6.62 per option, respectively.

For the years ended December 31, 2008, 2007 and 2006, stock-based compensation expense related to stock options was $3.2 million, $3.9 million and $2.1 million, respectively, and was recorded as a component of general and administrative expense ($1.8 million, $3.0 million and $1.6 million, respectively) and research and development expense ($1.4 million, $0.9 million and $0.5 million, respectively). No stock options were exercised during the years ended December 31, 2008 and 2007; however, there were two stock option exercises during the year ended December 31, 2006, from which approximately $14,000 was received.

As of December 31, 2008, there was $5.2 million of unamortized compensation cost related to unvested stock option awards, which is expected to be recognized over a remaining weighted-average vesting period of 1.8 years, on a straight-line basis. Prior to the adoption of SFAS No. 123R, we presented unamortized compensation cost as deferred compensation and classified it as a separate component of stockholders equity. On January 1, 2006, in accordance with the provisions of SFAS No. 123R, we reclassified deferred compensation against additional paid-in capital.

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

Comprehensive Income (Loss)

We have adopted SFAS No. 130, *Reporting Comprehensive Income*, which requires that all components of comprehensive income (loss), including net income (loss), be reported in the financial statements in the period in which they are recognized. Comprehensive income (loss) is defined as the change in equity (net assets) during a period from transactions and other events and circumstances from non-owner sources. Net income (loss) and other comprehensive income (loss), including foreign currency translation adjustments and unrealized gains and losses on investments, are reported, net of their related tax effect, to arrive at comprehensive income (loss). Our comprehensive loss includes unrealized losses on marketable securities and currency translation. The table below sets forth the components of our accumulated other comprehensive loss at:

	December 31,		
	2008	2007	2006
Beginning Balance	$ (131,466)	$ (49,205)	$ (15,188)
Currency translation	101,722	6,757	
Unrealized loss on marketable securities		(89,018)	(34,017)
Ending Balance	$ (29,744)	$ (131,466)	$ (49,205)

As of December 31, 2008, 2007 and 2006, our comprehensive loss was $21,823,107, $48,985,505 and $35,723,628, respectively.

Net Loss Per Share

Net loss per share is presented as basic and diluted net loss per share. Basic net loss per share is calculated by dividing the net loss by the weighted average number of common shares outstanding for the period, without consideration for common stock equivalents. Diluted net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted average number of common share equivalents outstanding for the period determined using the treasury-stock method. For purposes of this calculation, convertible preferred stock, stock options and warrants are considered to be common stock equivalents and are only included in the calculation of diluted net loss per share when their effect is dilutive. There were no potentially dilutive securities for the years ended December 31, 2008 and 2007. Potentially dilutive securities of 88,403 for the year ended December 31, 2006 were excluded from determining diluted earnings per share because of their anti-dilutive effect.

Recent Accounting Pronouncements

The FASB issued SFAS No. 141 (revised 2007), *Business Combinations* and SFAS No. 160, *Noncontrolling Interests in Consolidated Financial Statements, an amendment of Accounting Research Bulletin No. 51*. SFAS No. 141R will change how business acquisitions are accounted for and will impact financial statements both on the acquisition date and in subsequent periods. SFAS No. 160 will change the accounting and reporting for minority interests, which will be recharacterized as noncontrolling interests and classified as a component of equity. SFAS No. 141R and SFAS No. 160 are effective for us beginning in the first quarter of fiscal year 2009. Early adoption is not permitted. The impact of adopting SFAS No. 141R on our consolidated financial statements will depend on the economic terms of any future business combinations transactions. We believe the adoption of SFAS No.160 will not have a material impact on our consolidated financial statements.

In June 2007, the Financial Accounting Standards Board (FASB) ratified the consensus reached by the Emerging Issues Task Force (EITF) in EITF Issue No. 07-3, *Accounting for Nonrefundable Advance Payments for Goods or Services Received for Use in Future Research and Development Activities*, which requires that

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

nonrefundable advance payments for goods or services that will be used or rendered for future research and development activities be deferred and amortized over the period that the goods are delivered or the related services are performed, subject to an assessment of recoverability. EITF 07-3 was effective for fiscal years beginning after December 15, 2007. Effective January 1, 2008, we adopted EITF 07-3, which resulted in no impact to our consolidated financial statements.

In February 2007, the FASB issued Statement of Financial Accounting Standards (SFAS) No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities*, which allows an entity to voluntarily choose to measure certain financial assets and liabilities at fair value. SFAS No. 159 was effective for fiscal years beginning after November 15, 2007. Effective January 1, 2008, we adopted SFAS No. 159. In the fourth quarter of 2008, we elected to measure an eligible financial asset, our ARS Put, at fair value, due to its linkage with certain of our long-term ARS investments, which resulted in the recording of $5.8 million of gain in our consolidated financial statements. *See Note 2, Fair Value Measurements, of the notes to our consolidated financial statements for information and related disclosures regarding our fair value measurements.*

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements*, which defines fair value, establishes guidelines for measuring fair value and expands disclosures regarding fair value measurements. SFAS No. 157 does not require any new fair value measurements but rather eliminates inconsistencies in guidance found in various prior accounting pronouncements and is effective for fiscal years beginning after November 15, 2007. In February 2008, the FASB issued FASB Staff Position 157-2, which delays the effective date of SFAS No. 157 for all nonfinancial assets and nonfinancial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually) until fiscal years beginning after November 15, 2008 and interim periods within those fiscal years, which will be our fiscal year 2009. These nonfinancial items include assets and liabilities such as reporting units measured at fair value in a goodwill impairment test and nonfinancial assets acquired and liabilities assumed in a business combination. Although we have no nonfinancial assets or nonfinancial liabilities that are measured at fair value, effective January 1, 2008, we adopted SFAS No. 157 for financial assets and liabilities recognized at fair value on a recurring basis. The partial adoption of SFAS No. 157 for financial assets and liabilities did not have a material impact on our consolidated financial statements. *See Note 2, Fair Value Measurements, of the notes to our consolidated financial statements for information and related disclosures regarding our fair value measurements.*

2. Fair Value Measurements

As stated in Note 1, we adopted SFAS No. 157 as of January 1, 2008. As defined in SFAS No. 157, fair value is based on the price that would be received to sell an asset or would be paid to transfer a liability in an orderly transaction between market participants at the measurement date. To increase the comparability and consistency of fair value measurements, SFAS No. 157 prescribes a fair value hierarchy that prioritizes observable and unobservable inputs used to measure fair value into three broad levels, as generally described below:

Level 1:	Inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities at the measurement date.
Level 2:	Inputs are quoted prices for similar items in active markets or inputs are quoted prices for identical or similar items in markets that are not active.
Level 3:	Inputs are unobservable due to little or no market data availability and inputs are usually developed by management or a third-party, which reflect those inputs that a market participant would use. The fair value hierarchy gives the lowest priority to Level 3 inputs.

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

At December 31, 2008, cash and cash equivalents (instruments with maturities of three months or less at the date of purchase) were $19.3 million, of which $4.0 million was invested in domestic 90-day certificates of deposits and the remainder primarily in money market funds. We measure our cash equivalents on a recurring basis. The fair value of our cash equivalents, which are current assets, is based on Level 1 criteria, in which their carrying amount is a reasonable estimate of their fair value based on daily quoted market prices.

Marketable Securities Available-For-Sale, Long-Term Investments and Long-Term Asset

During fiscal year 2008, our marketable securities available-for-sale related to corporate debt securities and government-sponsored securities matured and were converted into cash equivalents. At December 31, 2008, all of our remaining marketable securities available-for-sale were designated as trading securities and classified as long-term investments due to the time frame in which we can readily convert these securities into cash. At December 31, 2007, our marketable securities available-for-sale included $45.0 million of municipal ARS that were issued through syndicated offerings, $2.7 million of ARS issued through private placements, $0.7 million of corporate debt securities and $3.5 million of government-sponsored securities. All of the corporate debt securities and government sponsored securities had contractual maturities of 12 months or less. The ARS primarily have stated maturities that are structured with short-term holding periods. At the end of each holding period, a new auction is held to determine the rate or dividend for the next holding period. We can sell or continue to hold securities at par at each auction. In order for us to sell ARS, the auction needs to be successful, which means that demand in the marketplace exceeds supply. The length of each holding period is determined at the original issuance of the ARS. As of December 31, 2007, we had $47.7 million of ARS with stated maturity dates ranging from 2022 to 2044 and reset dates primarily ranging from seven to 63 days.

	December 31, 2008				December 31, 2007			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Auction rate securities	$	$	$	$	$ 47,800,000	$	$ (98,975)	$ 47,701,025
Corporate debt securities					700,700		(646)	700,054
Government sponsored securities					3,444,889	10,603		3,455,492
	$	$	$	$	$ 51,945,589	$ 10,603	$ (99,621)	$ 51,856,571

We measure all of our marketable securities available-for-sale on a recurring basis based on Level 3 criteria. At December 31, 2007, our investments in ARS principally represent interests in government guaranteed student loans, municipal bonds, educational institutions, insurance notes and portfolios of securities (primarily commercial paper). At December 31, 2007, approximately $45.0 million of the ARS held by us consisted primarily of municipal securities. None of the underlying collateral for the ARS held by us consisted of subprime mortgages or collateralized debt obligations. As of December 31, 2007, the $0.1 million unrealized loss on ARS related to a decrease in estimated market value due to failed auctions associated with approximately $2.7 million of private placement ARS.

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

The following tables reconciles the amortized cost of auction rate securities classified as current marketable securities available-for-sale at December 31, 2007, with the fair value of such auction rate securities which were reclassified to long-term investments during fiscal year 2008:

	Amortized Cost at 12/31/2007	Sales or Redemptions of Auction Rate Securities at Par from 1/1/08 to 12/31/08	Impairment Charge on Auction Rate Securities at 12/31/08	Transfers Out of Current Marketable Securities Available-For-Sale to Long-Term Investments from 1/1/08 to 12/31/08	Long-Term Investments Fair Value at 12/31/08 Based on Level 3
Auction rate securities (1)	$ 41,400,000	$ (14,100,000)	$ (6,244,431)	$ (21,055,569)	$ 21,055,569
Auction rate securities (2)	6,400,000	(2,600,000)	(808,255)	(2,991,745)	2,991,745
Totals	$ 47,800,000	$ (16,700,000)	$ (7,052,686)	$ (24,047,314)	$ 24,047,314

(1) Aggregated fair value reported at December 31, 2008 reflects fair value as determined principally by our discounted cash flow model with liquidity discount, pursuant to which we took into consideration the brokerage firm s pricing model, the tax status (taxable vs. tax exempt) of the security, credit quality of the issuer, assumed maturity (seven years), insurance wraps and the portfolio composition. We also made assumptions regarding future cash flows and the likelihood of the ARS being redeemed or refinanced. In addition, we performed a sensitivity analysis by calculating fair value with a maturity of one year through ten years. The annual coupon rate utilized was set at the U.S. Treasury Department published average of the bond equivalent rates of the 91-day Treasury bills auctioned during the quarter ending December 31, 2008 (which was the Federal Family Education Loan Program special allowance rate for the quarter ending December 31, 2008) plus 120 basis points. We believe that using this interest rate is reasonable given that a majority of our ARS portfolio is collateralized by student loans guaranteed by the U.S. government under the Federal Family Education Loan Program. Using our discounted cash flow model with liquidity discounts ranging from 4% to 23%, we calculated aggregate fair value for these securities, which ranged between $25.3 million with a two-year maturity, $22.7 million with a five-year maturity and $18.8 million with a ten-year maturity. As of December 31, 2008, although the ARS continue to pay interest according to their stated interest terms, we deemed the $6.2 million reduction of the overall fair value of the ARS as other-than-temporary due to the continued illiquidity of the primary ARS market and our expectation as to when we may be required to liquidate the ARS for operating purposes.

(2) Aggregated fair value reported at December 31, 2008 reflects fair value as determined by our discounted cash flow model, which employed liquidity discounts ranging from 3% to 23% depending on the security type and included assumptions regarding future cash flows and the likelihood of the redemption or refinancing of such ARS. We also performed a sensitivity analysis by calculating fair value with a maturity of one year through ten years. The interest rate utilized in the model was either LIBOR plus the spread, as indicated in the respective security prospectus which was generally 200 basis points, or the U.S. Treasury Department published average of the bond equivalent rates of the 91-day Treasury bills auctioned during the quarter ending December 31, 2008 (which was the Federal Family Education Loan Program special allowance rate for the quarter ending December 31, 2008) plus 120 basis points for the ARS collateralized by student loans. The LIBOR rate was per bankrate.com which we deemed as a reasonable source given it is a widely utilized third-party rate source. We believe that utilizing the Federal Family Education Loan Program special allowance rate for the student loan ARS is reasonable given the collateral of the ARS is student loans. Using this methodology, we calculated aggregate fair value for these securities, which ranged between $3.5 million with a two-year maturity, $3.2 million with a five-year maturity and $2.7 million with a ten-year maturity. As of December 31, 2008, although the ARS continue to pay interest according to their

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

stated interest terms, we deemed the $0.8 million reduction of the overall fair value of the ARS as other-than-temporary due to the continued illiquidity of the primary ARS market and our expectation as to when we may be required to liquidate the ARS for operating purposes.

In November 2008, we received and accepted the ARS Rights Offer from UBS. Pursuant to the ARS Rights Offer, we received the ARS Put, which we classified as a long-term asset. We elected to measure the ARS Put under the fair value option of SFAS 159 to mitigate the volatility in reported earnings due to the linkage of certain of our ARS and the ARS Put. We measure the ARS Put on a recurring basis. The fair value of the ARS Put was also determined on Level 3 basis through the use of a discounted cash flow valuation model with assumptions being made related to interest rate, maturity and liquidity. We effectively used a liquidity discount of approximately 7%, an interest rate of approximately 5% which took into consideration the brokerage firm s weighted average cost of capital and a maturity of 1.5 years given that the earliest the ARS Put can be exercised is June 2010. Based on our discounted cash flow valuation, we recorded a gain of $5.8 million in our consolidated statement of operations, which effectively net our realized loss on our overall ARS portfolio to $1.3 million.

3. Balance Sheet Details

Property and Equipment

Property and equipment, net, consist of the following:

	December 31,	
	2008	**2007**
Leasehold improvements	$ 498,581	$ 498,581
Furniture and equipment	880,337	892,638
Software	380,245	380,245
	1,759,163	1,771,464
Less accumulated depreciation and amortization	(1,390,864)	(1,098,147)
	$ 368,299	$ 673,317
Depreciation and amortization expense	$ 305,018	$ 516,013

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

Accrued Expenses

A substantial portion of our ongoing research and development activities are performed under agreements we enter into with external service providers, including clinical research organizations, which conduct many of our research and development activities. A portion of our ongoing general and administrative activities relate to legal, accounting and consulting services. We accrue for costs incurred as the services are being provided by monitoring the status of clinical trials or specific projects or services provided, contractual factors such as milestones or retainer fees and the invoices received from our external service providers. Accrued expenses consist of the following:

	December 31,	
	2008	2007
Research and development costs	$ 740,207	$ 3,120,668
Professional services fees	176,236	244,351
Other	95,473	254,842
	$ 1,011,916	$ 3,619,861

4. Related Party Transactions

Our board of directors approved an arrangement in September 2001 to engage Dr. Yuichi Iwaki as a consultant in connection with financing transactions and business development activities, which was subsequently amended in November 2003 and November 2004. Pursuant to such arrangement, Dr. Iwaki was paid $20,000 per month plus other cash or stock compensation, if any, as the board of directors deemed appropriate for services rendered. In July 2005, the board of directors appointed Dr. Iwaki as our Executive Chairman and, in September 2005, appointed Dr. Iwaki as our Acting Chief Executive Officer and Acting Chief Financial Officer. In January 2006, Dr. Iwaki s consulting fee was increased to $29,167 per month based on the findings of an independent study covering executive compensation. In March 2006, Dr. Iwaki was appointed as our President and Chief Executive Officer. Effective January 1, 2007, Dr. Iwaki became a full-time employee. Compensation earned by Dr. Iwaki as a consultant during the years ended December 31, 2007, 2006, 2005 and the period from September 26, 2000 (inception) to December 31, 2007 were $0, $500,000, $320,000 and $1,180,000, respectively.

On May 4, 2007, our board of directors approved the modification of certain stock option grants received by Dr. Iwaki while serving in his consulting capacity as President and Chief Executive Officer as a result of the change in Dr. Iwaki s status from consultant to employee. Two nonqualified stock option (NSO) grants received by Dr. Iwaki for 40,000 shares of common stock and 333,503 shares of common stock, which were granted on January 4, 2006 and November 12, 2006, respectively, were modified such that the NSO grants were cancelled and new grants of incentive stock options equal in number to the prior NSO grants were granted at the prior exercise prices and with the original vesting schedules approved for the cancelled NSO grants. Pursuant to SFAS No. 123R, there is no impact to our consolidated financial results related to the modification from nonqualified stock options to incentive stock options as there is no incremental value attributed to the modified awards.

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

5. Commitments and Contingencies

Facility Lease

In January 2004, we leased 16,609 square feet of space for our corporate headquarters under a non-cancelable operating lease that was set to expire in February 2008. In January 2008, we entered into a third amendment to lease for our corporate headquarters at the same location in which we reduced the amount of space under lease to 12,699 square feet of office space through August 2011. In June 2005, we leased 1,726 square feet of office space in Tokyo, Japan under a non-cancelable operating lease that expires in May 2009. Rent expense for the year ended December 31, 2008 was $551,234 and rent expense, net of sub-lease income for the years ended December 31, 2007, 2006, and the period from September 26, 2000 (inception) to December 31, 2008 was $683,971, $624,430, and $3,017,949, respectively.

Future minimum payments are as follows:

Years ending December 31:		
2009	$	492,969
2010	$	476,214
Thereafter	$	331,446
Total minimum payments	$	1,300,629

License Agreements

We have entered into numerous license agreements to acquire the rights to develop and commercialize a variety of product candidates. Pursuant to these agreements, we have obtained exclusive licenses to the patent rights and know-how for all indications under the agreements within our licensed territories. We generally make an upfront payment and are required to make additional payments upon the achievement of specific development and regulatory approval milestones. We are also obligated to pay royalties under the agreements until the later of the expiration of the applicable patent or the applicable last date of market exclusivity after the first commercial sale, on a country-by-country basis.

The amounts expended under these agreements and charged to research and development expense during the years ended December 31, 2008, 2007, 2006, and the period from September 26, 2000 (inception) to December 31, 2008 were $100,000, $3,000,000, $1,050,000 and $9,850,000, respectively. As of December 31, 2008, future potential milestone payments totaled approximately $94.1 million, and there are no minimum royalties required under any of the license agreements. From June 19, 2002 (the date of our first license agreement) through December 31, 2008, we have entered into nine license agreements with Japanese and British pharmaceutical companies and a non-profit research institute.

Termination of Phase III Trial for MN-001, Bronchial Asthma

On June 26, 2007, we announced a strategic initiative to focus our resources on the development and commercialization of two prioritized assets in our development pipeline, MN-221 for the treatment of acute exacerbations of asthma and MN-166 for the treatment of multiple sclerosis. As part of this strategy, we terminated the Phase III clinical trial of MN-001 for the treatment of bronchial asthma. At December 31, 2007, the termination of the Phase III clinical trial was completed and our financial results for the year then ended reflect additional research and development expense of $2.1 million (or $0.18 loss per share) to complete the wind-down of this clinical trial.

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

Legal Proceedings

In November 2006, we reached a mediation settlement of the dispute concerning the termination of employment of a former executive in the Tokyo District Court. Under the settlement, which is the subject of a written mediation decree prepared by the Tokyo District Court, we agreed to pay the former executive eight months of severance pay, or approximately $160,000, which was included as a charge in our consolidated statement of operations in fiscal 2006.

On April 30, 2007, a participant in one of our clinical trials filed a lawsuit against us, the clinical investigatory site where the individual participated in the clinical trial and the chief investigator at such clinical investigatory site. The complaint alleged that the plaintiff s daughter suffered permanent injuries *in utero* as a result of the plaintiff s participation in our clinical trial. Our insurance carrier assumed defense of this lawsuit, which was settled on September 27, 2007 with no admission of liability. On October 29, 2007, the court entered an order of dismissal of the claims asserted against us and all other defendants and subsequently entered a final judgment approving the settlement. Settlement of the lawsuit did not have a material adverse effect on our business, financial condition or operating results.

We may become involved in various disputes and legal proceedings which arise in the ordinary course of business. While it is not possible to accurately predict or determine the outcome of these matters, an adverse result in any of these matters may occur which could harm our business. We are currently not a party to any legal proceedings.

6. Redeemable Convertible Preferred Stock and Stockholders Equity

Initial Public Offering in Japan

On February 4, 2005, we completed an IPO of 3,000,000 shares of common stock in Japan and received aggregate proceeds of $104,486,895, net of underwriting discounts and commissions and offering expenses. In addition, on March 8, 2005, we closed the sale of an additional 157,300 shares of our common stock pursuant to the partial exercise by our underwriters of an over-allotment option which resulted in aggregate proceeds to us of $5,557,773, net of underwriting discounts and commissions. In connection with our IPO, redeemable convertible and convertible preferred stock outstanding as of February 4, 2005 was automatically converted into 6,678,285 shares of common stock.

Public Offering in the United States

On February 1, 2007, we completed a public offering of 1,000,000 shares of common stock in the United States at a purchase price of $12.00 per share and received aggregate net proceeds of approximately $10,639,600 million, net of underwriting discounts and commissions and offering expenses.

Redeemable Convertible Preferred Stock

On September 2, 2004, we sold 27,667,856 shares of Series C redeemable convertible preferred stock at a purchase price of $1.62 per share for total net proceeds of $43,404,320, net of issuance costs. The Series C preferred stock was sold at a price per share below our IPO price. Accordingly, pursuant to EITF Issue No. 98-5, *Accounting for Convertible Securities with Beneficial Conversion Features*, we recorded a deemed dividend on the Series C preferred stock of $31,264,677, which is equal to the number of shares of Series C preferred stock

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

sold multiplied by the difference between the estimated fair value of the underlying common stock and the Series C preferred stock conversion price per share. The deemed dividend increased the net loss applicable to common stockholders in the calculation of basic and diluted net loss per common share and was reported as a charge to accumulated deficit and a credit to additional paid-in capital, with no net impact on total stockholders equity.

Founders Common Stock and Warrants

At inception, we issued a total of 50,000 shares of our common stock to two of our founders who became officers and directors, for proceeds of $50,000. We also granted the two individuals warrants to purchase 50,000 shares of our common stock at an exercise price of $1.00 per share. The warrants contained an antidilution clause providing the founders with the right to purchase additional shares of common stock any time there was a dilution event so that they could maintain their original ownership percentage. At December 31, 2003, as a result of the Series A and Series B preferred stock sales, the warrants were adjusted to allow the holders to purchase up to 365,000 shares of common stock. At December 31, 2007, no underlying shares of common stock remained subject to purchase under the terms of these warrants.

From January through May 2004, in conjunction with the sale of Series B preferred stock, the shares of common stock issuable upon exercise of the warrants were adjusted up to 732,300 shares. Based on subsequent financing activities and the price of our IPO, we believe that the estimated fair value of the 732,300 shares exceeded the $1.00 exercise price of the warrants and, as a result, we recorded stock-based compensation in general and administrative expense in the amount of $19,405,950.

On September 2, 2004, in conjunction with the sale of Series C preferred stock, we and our two founders amended the terms of our warrant agreements. In exchange for relinquishing any future anti-dilution rights, the number of underlying common shares that could be purchased under the terms of the warrants was increased and fixed at 1,285,657, up from 732,300. Since all of the warrants were previously variable, we recorded additional stock-based compensation in general and administrative expense of $14,663,966 based on the estimated value of the underlying common stock on September 2, 2004 for a total of $34,069,916. Since the number of warrants became fixed at September 2, 2004, no additional compensation has been recorded.

Other Warrants

In May 2004, as compensation for fundraising efforts related to the sale of Series B preferred stock, we issued to BioVen Advisory, Inc. a warrant to purchase 50,000 shares of common stock with an exercise price of $10.00 per share and an expiry date of May 2009. The warrant was valued at the $250,000 cash value of the services performed. The warrant issuance had no net impact on the consolidated financial statements because the transaction resulted in both a charge and a credit to additional paid-in capital.

Stock Options

We grant options to our employees, directors and consultants under the 2004 Plan, the successor to the 2000 Plan.

2000 General Stock Incentive Plan

In September 2000, we adopted the 2000 Plan under which incentive stock options could be granted to our employees and nonstatutory stock options and other stock-based awards could be granted to employees, directors and consultants. Stock options have been granted with an exercise price of $10.00 per share and vest 25% after

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

the first year of service from the grant date, with the remaining shares vesting in equal monthly installments over the subsequent 36 months of service. An employee may exercise stock options prior to vesting in which case we have the right to repurchase the unvested shares at the original exercise price if the employee is terminated before vesting in all shares occurs.

Following the vesting period, options are exercisable until the earlier of 90 days after the employee s termination with us or the ten-year anniversary of the initial grant, subject to adjustment under certain conditions. We have the right to purchase all of those shares that the employees have or will acquire under these stock options. The purchase price for any vested shares repurchased will be the greater of the fair market value of such shares on the date of purchase or the aggregate exercise price for such shares.

At December 31, 2008, stock options to purchase a total of 85,500 shares of common stock were outstanding under the 2000 Plan at a weighted average exercise price of $10.00 per share. No additional stock options have been or will be issued under the 2000 Plan subsequent to our IPO. However, stock options previously granted under the 2000 Plan will remain outstanding until the earlier of expiration or exercise.

2004 Stock Incentive Plan

In connection with our IPO, we adopted the 2004 Plan, which serves as the successor program to the 2000 Plan. The 2004 Plan became effective upon the completion of our IPO in February 2005 and was amended and restated in February 2007.

The 2004 Plan is administered by the compensation committee of our board of directors and provides for the grant of (i) options to purchase shares of common stock; (ii) restricted stock; (iii) stock appreciation rights; and (iv) stock units. Incentive stock options may only be granted to employees. Nonstatutory stock options and other stock-based awards may be granted to employees, non-employee directors and consultants.

The number of shares reserved for issuance under the 2004 Plan will be increased on the first day of each of our fiscal years from 2006 through 2014, with the first such increase occurring on January 1, 2006, by the lesser of: (i) 100,000 shares; (ii) 3% of our outstanding common stock on the last day of the immediately preceding fiscal year; or (iii) the number of shares determined by our board of directors. In addition, in February 2007 and June 2008, the total number of shares available for grant under the 2004 Plan was increased by 300,000 and 1,000,000, respectively.

Options granted to optionees other than non-employee directors will generally vest monthly over a four-year period, beginning on the vesting commencement date. The exercise price of an incentive stock option shall not be less than 100% of the fair market value at the time of grant and the exercise price of a nonstatutory stock option shall not be less than 85% of the fair market value at the time of grant.

Fully vested automatic grants of nonstatutory stock options will be made to non-employee directors in an initial amount of 1,000 shares upon first becoming a member of our board of directors. Immediately after each of our regularly scheduled annual meetings of stockholders, each non-employee director will be automatically granted a nonstatutory option to purchase 1,000 shares of our common stock, at 100% of the fair market value at the time of grant, provided that the director has served on our board for at least six months. Each annual option will be fully vested and exercisable on the date which is six months after the date of grant.

The 2004 Plan terminates ten years after its initial adoption by the board of directors, unless terminated earlier by the board of directors. The board of directors may amend or terminate the plan at any time, subject to stockholder approval where required by applicable law.

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

A summary of our stock option activity and related information as of December 31, 2008 is as follows:

	Number of Option Shares	Weighted Average Exercise Price
Outstanding at January 1, 2008	1,990,078	$ 12.58
Granted	615,540	$ 4.40
Exercised		$
Cancelled	(26,107)	$ 17.17
Outstanding at December 31, 2008	2,579,511	$ 10.59
Exercisable at December 31, 2008	1,410,563	$ 12.16

The weighted average contractual life of options outstanding at December 31, 2008 was 7.8 years and the weighted average contractual life of exercisable options at December 31, 2008 was 7.4 years. There was no intrinsic value of stock options exercised during the year ended December 31, 2008 or outstanding and exercisable at December 31, 2008, based on the Nasdaq Global Market on such date.

Common Stock Reserved for Future Issuance

The following table summarizes common stock reserved for future issuance at December 31, 2008:

Common Stock under the employee stock purchase program	257,706
Common stock warrants	50,000
Common stock options outstanding (under the 2000 Plan and 2004 Plan)	2,579,511
Common stock options authorized for future grant (under the 2004 Plan)	1,445,489
	4,332,706

7. Income Taxes

The significant components of our deferred income taxes at December 31, 2008 and 2007 are as follows:

	December 31, 2008	2007
Deferred tax assets:		
Net operating loss carryforwards	$ 51,884,000	$ 44,918,000
Capitalized licenses	2,805,000	3,009,000
Research tax credits	5,380,000	4,722,000
Deferred compensation	1,093,000	1,035,000
Unrealized loss on marketable securities	513,000	

Other, net	257,000	205,000
Net deferred tax assets	61,932,000	53,889,000
Less valuation allowance	(61,932,000)	(53,889,000)
	$	$

We have established a valuation allowance against our deferred tax assets due to the uncertainty that such assets will be realized. We periodically evaluate the recoverability of the deferred tax assets. At such time as it is determined that it is more likely than not that deferred tax assets will be realizable, the valuation allowance will be reduced.

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

At December 31, 2008, we had federal and California net operating loss carryforwards of approximately $127.5 million and $126.3 million, respectively. The federal net operating loss carryforwards begin to expire in 2020, and the California net operating loss carryforwards begin to expire in 2015. At December 31, 2008, we also had federal and California research tax credit carryforwards of approximately $4,800,000 and $800,000, respectively. The federal research tax credit carryforwards begin to expire in 2024, and the California research tax credit carryforward does not expire and can be carried forward indefinitely until utilized.

Additionally, utilization of the NOL and tax credit carryforwards will be subject to a substantial annual limitation under Section 382 and 383 of the Internal Revenue Code of 1986, and similar state provisions due to ownership change limitations that have occurred. These ownership changes will limit the amount of NOL and tax credit carryforwards that can be utilized to offset future taxable income and tax, respectively. In general, an ownership change, as defined by Section 382 and 383, results from transactions increasing ownership of certain stockholders or public groups in the stock of the corporation by more than 50 percentage points over a three-year period. An analysis was performed which indicated that multiple ownership changes have occurred in previous years which created annual limitations on our ability to utilize NOL and tax credit carryovers. Such limitations will result in approximately $8.8 million and $2.2 million of tax benefits related to federal and state NOL and tax credit carryforwards, respectively, that will expire unused. Accordingly, the related NOL and R&D credit carryforwards have been removed from deferred tax assets accompanied by a corresponding reduction of the valuation allowance. Due to the existence of the valuation allowance, limitations created by future ownership changes, if any, related to our operations in the U.S. will not impact our effective tax rate.

In July 2006, the FASB issued FIN 48, which clarifies the accounting for uncertainty in income taxes recognized in a company s financial statements in accordance with SFAS No. 109, Accounting for Income Taxes. FIN 48 prescribes a recognition threshold and measurement process for recording in the financial statements uncertain tax positions taken or expected to be taken in a tax return. Additionally, FIN 48 provides guidance on the de-recognition, classification, interest and penalties, accounting in interim periods, and disclosure requirements for uncertain tax positions. We adopted the provisions of FIN 48 beginning January 1, 2007. The adoption of FIN 48 did not impact our financial condition, results of operations or cash flows. As of December 31, 2008, we have not recorded any uncertain tax benefits.

We file income tax returns in the United States, California and foreign jurisdictions. Due to our losses incurred, we are essentially subject to income tax examination by tax authorities from our inception to date. Our policy is to recognize interest expense and penalties related to income tax matters as tax expense. At December 31, 2008, we do not have any significant accruals for interest related to unrecognized tax benefits or tax penalties.

8. Employee Savings Plan and Employee Stock Purchase Plan

We have an employee savings plan available to substantially all employees. Under the plan, an employee may elect salary reductions which are contributed to the plan. The plan provides for discretionary contributions by us, which totaled $151,488, $155,598, $113,809 and $712,132 for the years ended December 31, 2008, 2007, 2006 and the period from September 26, 2000 (inception) to December 31, 2008, respectively.

Under the MediciNova, Inc. 2007 Employee Stock Purchase Plan (ESPP), 300,000 shares of our common stock have been reserved for issuance. The ESPP permits full-time employees to purchase our common stock through payroll deductions (which cannot exceed 15% of each employee s compensation) at the lower of 85% of fair market value at the beginning of the offering period or the end of each six-month offering period. For the year ended December 31, 2008, 37,267 shares were issued under the ESPP, leaving 257,706 shares available for future issuance.

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

9. Quarterly Financial Data (Unaudited)

The following financial information reflects all normal recurring adjustments, which are, in the opinion of management, necessary for a fair statement of the results of the interim periods. Summarized quarterly data for fiscal 2008 and 2007 are as follows (in thousands, except per share data):

	Year Ended December 31, 2008			
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Selected quarterly financial data:				
Revenue	$	$	$	$
Total operating expenses	8,660	4,460	5,697	3,785
Net loss	(10,803)	(4,892)	(4,815)	(1,415)
Net loss applicable to common stockholders	(10,803)	(4,892)	(4,815)	(1,415)
Basic and diluted net loss per common share(1)	(0.89)	(0.40)	(0.40)	(0.12)

	Year Ended December 31, 2007			
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Selected quarterly financial data:				
Revenue	$	$	$	$
Total operating expenses	17,219	20,901	11,341	4,032
Net loss	(15,904)	(19,780)	(10,228)	(2,992)
Net loss applicable to common stockholders	(15,904)	(19,780)	(10,228)	(2,992)
Basic and diluted net loss per common share(1)	(1.40)	(1.68)	(0.87)	(0.25)

(1) Loss per share is computed independently for each of the quarters presented. Therefore, the sum of the quarterly net loss per share will not necessarily equal the total for the year.

10. Subsequent Events

ARS Loan

In the fourth quarter of 2008, we received and accepted the ARS Rights Offer from UBS. Pursuant to the ARS Rights Offer, we received the ARS Put. In January 2009, we were approved by UBS for the ARS Loan in the amount of $15.9 million and drew down the entire pre-approved amount. In February 2009, we were advised by UBS that our ARS portfolio was re-priced given market conditions as of such time. UBS re-pricing of our ARS resulted in an increase in the fair value of $2.8 million for such securities. As a result, we borrowed an additional $2.2 million under the ARS Loan, which amount represents 75% of the increased value of the ARS, thereby bringing the total amount outstanding under the ARS Loan to $18.1 million. Under the ARS Loan, UBS may demand full or partial payment of the ARS Loan, at its sole option and without cause, at any time. All cash received under the ARS Loan was invested in money market accounts.

Table of Contents

PART I. FINANCIAL INFORMATION

ITEM 1. CONSOLIDATED FINANCIAL STATEMENTS.

MEDICINOVA, INC.

(a development stage company)

CONSOLIDATED BALANCE SHEETS

(Unaudited)

	September 30, 2009	December 31, 2008
Assets		
Current assets:		
Cash and cash equivalents	$ 25,644,717	$ 19,297,284
Investment securities-current (Note 2)	21,389,607	
ARS put-current (Note 2)	5,334,985	
Prepaid expenses and other current assets	892,969	718,317
Total current assets	53,262,278	20,015,601
Property and equipment, net	203,874	368,299
Long-term investment securities (Note 2)	2,482,370	24,047,314
Long-term ARS put (Note 2)		5,792,701
Total assets	$ 55,948,522	$ 50,223,915
Liabilities and Stockholders Equity		
Current liabilities:		
Accounts payable	$ 429,502	$ 392,572
ARS loan payable (Note 2)	17,650,538	
Accrued expenses	1,522,451	1,011,916
Income taxes payable		9,748
Accrued compensation and related expenses	493,330	765,147
Total current liabilities	20,095,821	2,179,383
Stockholders equity:		
Preferred stock, $0.01 par value; 500,000 shares authorized at September 30, 2009 and December 31, 2008; no shares outstanding at September 30, 2009 and December 31, 2008		
Common stock, $0.001 par value; 30,000,000 shares authorized at September 30, 2009 and December 31, 2008; 12,149,881 and 12,072,027 shares issued at September 30, 2009 and December 31, 2008, respectively, and 12,099,588 and 11,984,713 shares outstanding at September 30, 2009 and December 31, 2008, respectively	12,149	12,072
Additional paid-in capital	278,571,428	276,361,775
Accumulated other comprehensive loss	(59,958)	(29,744)
Treasury stock, at cost; 50,293 shares at September 30, 2009 and 87,314 shares at December 31, 2008	(1,235,395)	(1,317,362)
Deficit accumulated during the development stage	(241,435,523)	(226,982,209)
Total stockholders equity	35,852,701	48,044,532

Total liabilities and stockholders equity	$ 55,948,522	$ 50,223,915

See accompanying notes.

Table of Contents

MEDICINOVA, INC.

(a development stage company)

CONSOLIDATED STATEMENTS OF OPERATIONS

(Unaudited)

	Three months ended September 30,		Nine months ended September 30,		Period from September 26, 2000 (inception) to September 30,
	2009	2008	2009	2008	2009
Revenues	$	$	$	$	$ 1,558,227
Operating expenses:					
Cost of revenues					1,258,421
Research and development	2,379,588	3,500,876	8,226,305	11,823,065	141,899,003
General and administrative	2,563,772	2,195,787	6,926,849	6,993,195	85,587,556
Total operating expenses	4,943,360	5,696,663	15,153,154	18,816,260	228,744,980
Operating loss	(4,943,360)	(5,696,663)	(15,153,154)	(18,816,260)	(227,186,753)
Gain/(impairment charge) on investment securities and ARS put, net	72,967		213,793	(3,295,621)	(1,046,191)
Foreign exchange (loss)/gain	(11,600)	532,392	(2,424)	(90,997)	(90,583)
Interest income, net	87,433	352,768	489,003	1,696,687	18,285,217
Income taxes	(527)	(3,664)	(532)	(3,811)	(34,091)
Net loss	(4,795,087)	(4,815,167)	(14,453,314)	(20,510,002)	(210,072,401)
Accretion to redemption value of redeemable convertible preferred stock					(98,445)
Deemed dividend resulting from beneficial conversion feature on Series C redeemable convertible preferred stock					(31,264,677)
Net loss applicable to common stockholders	$ (4,795,087)	$ (4,815,167)	$ (14,453,314)	$ (20,510,002)	$ (241,435,523)
Basic and diluted net loss per common share	$ (0.40)	$ (0.40)	$ (1.20)	$ (1.70)	
Shares used to compute basic and diluted net loss per common share	12,119,511	12,072,027	12,088,029	12,072,027	

See accompanying notes.

Table of Contents

MEDICINOVA, INC.

(a development stage company)

CONSOLIDATED STATEMENTS OF CASH FLOWS

(Unaudited)

	Nine months ended September 30,		Period from September 26, 2000 (inception) to September 30,
	2009	2008	2009
Operating activities:			
Net loss	$ (14,453,314)	$ (20,510,002)	$ (210,072,401)
Adjustments to reconcile net loss to net cash used in operating activities:			
Stock-based compensation	1,884,535	2,381,796	45,820,497
Depreciation and amortization	169,847	246,250	1,745,943
Amortization of premium/discount on investment securities		(708,654)	(2,476,420)
(Gain)/impairment charge on investment securities and ARS put	(213,793)	3,295,621	1,046,190
Impairment of property and equipment			35,259
Loss on disposal of property and equipment	11,058		11,058
Changes in operating assets and liabilities:			
Prepaid expenses and other assets	(174,652)	1,328,952	(892,969)
Accounts payable, accrued expenses, income taxes payable and deferred rent	507,503	(3,549,061)	1,921,740
Accrued compensation and related expenses	(271,817)	178,165	493,330
Net cash used in operating activities	(12,540,633)	(17,336,933)	(162,367,773)
Investing activities:			
Purchases of investment securities		(2,000,000)	(377,205,766)
Maturities or sales of investment securities	846,846	23,550,000	349,400,297
Acquisition of property and equipment	(16,480)		(2,252,979)
Proceeds from sales of property and equipment			256,845
Net cash provided by (used in) investing activities	830,366	21,550,000	(29,801,603)
Financing activities:			
Net proceeds from the sale of common stock	325,195		121,215,761
Sale of preferred stock, net of issuance costs			80,216,971
Proceeds from ARS loan, net	17,650,538		17,650,538
Purchase of treasury stock, net	81,967	86,727	(1,269,177)
Net cash provided by financing activities	18,057,700	86,727	217,814,093
Net increase in cash and cash equivalents	6,347,433	4,299,794	25,644,717
Cash and cash equivalents, beginning of period	19,297,284	18,778,938	
Cash and cash equivalents, end of period	$ 25,644,717	$ 23,078,732	$ 25,644,717
Supplemental disclosure of non-cash investing and financing activities:			
Conversion of convertible preferred stock into common stock upon IPO	$	$	$ 43,515,677

Unrealized loss on investment securities	$	$	$ (89,018)
Supplemental disclosure of non-cash operating and investment activities:			
Reclassification of investment securities from current to long-term	$		$ 24,047,314
Reclassification of investment securities from long-term to current	$ 21,268,853	$	$ 21,268,853
Reclassification of ARS put from long-term asset to current asset	$ 5,641,857	$	$ 5,641,857
Supplemental disclosure of interest paid	$ 171,060	$	$ 171,060

See accompanying notes.

Table of Contents

MEDICINOVA, INC.

(a development stage company)

Notes to Consolidated Financial Statements

(Unaudited)

1. Interim Financial Information

The Company

We were incorporated in the state of Delaware in September 2000. We are a development stage biopharmaceutical company focused on acquiring and developing novel, small molecule therapeutics for the treatment of diseases with unmet need with a specific focus on the U.S. market. Through strategic alliances primarily with Japanese pharmaceutical companies, we hold rights to a diversified portfolio of clinical and preclinical product candidates, each of which we believe has a well-characterized and differentiated therapeutic profile, attractive commercial potential and patent assets having claims of commercially adequate scope.

Basis of Presentation

We have prepared the accompanying unaudited consolidated financial statements in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP) for interim financial information. Accordingly, they do not include all of the information and disclosures required by generally accepted accounting principles for complete financial statements. In the opinion of management, all adjustments (consisting of normal recurring adjustments) considered necessary for a fair presentation of the financial position, results of operations and cash flow for the interim period presented have been included. Operating results for the three months and nine months ended September 30, 2009 are not necessarily indicative of the results that may be expected for the year ending December 31, 2009 or for any other period. For further information, see the financial statements and disclosures thereto for the year ended December 31, 2008 in our Annual Report on Form 10-K as filed with the Securities and Exchange Commission on March 31, 2009. In addition, in connection with preparation of the consolidated financial statements and in accordance with the authoritative guidance for subsequent events, Accounting Standards Codification (ASC) 855.10 (formerly Statement of Financial Accounting Standards (SFAS) No. 165), we evaluated subsequent events after the balance sheet date of September 30, 2009 through November 12, 2009, the date which the financial statements were available, and disclosed, if necessary, any material subsequent events in the notes to these financial statements.

Principles of Consolidation

The consolidated financial statements include the accounts of MediciNova, Inc. and its wholly-owned subsidiaries. MediciNova, Inc. and its subsidiaries are collectively referred to herein as we, our or us.

On December 13, 2006, MediciNova (Europe) Limited, a wholly-owned subsidiary of MediciNova, Inc., was organized under the laws of England and Wales and established for the purpose of facilitating the clinical development of the Company s compounds for the European marketplace. MediciNova (Europe) Limited s functional currency is the U.S. dollar, the reporting currency of its parent.

On January 4, 2007, MediciNova Japan, Inc., a wholly-owned subsidiary of MediciNova, Inc., was incorporated under the laws of Japan and established to strengthen business development and investor and public relations activities in Japan and other Asian countries. MediciNova Japan, Inc. s functional currency is the U.S. dollar, the reporting currency of its parent.

On August 17, 2009, Absolute Merger, Inc., a wholly-owned subsidiary of MediciNova, Inc. was incorporated under the General Corporation Law of the State of Delaware for the purpose of facilitating the proposed merger with Avigen, Inc. (Avigen). See Footnote 8, Avigen Transaction, for more information regarding the proposed merger.

Table of Contents

All intercompany transactions and investments in our subsidiaries have been eliminated in consolidation of the financial statements.

Use of Estimates

We prepared the accompanying unaudited consolidated financial statements in conformity with U.S. GAAP, which requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results may differ from those estimates.

New Accounting Standards Recently Adopted

In July 2009, the Financial Accounting Standards Board (FASB) issued ASC 105 (formerly SFAS No. 168). ASC 105 contains guidance which reduces the U.S. GAAP hierarchy to two levels, one that is authoritative and one that is not. This pronouncement is effective September 15, 2009. We adopted the FASB authoritative guidance on the ASC and the hierarchy of U.S. GAAP, which establishes the ASC as the sole source of authoritative guidance recognized by the FASB to be applied by nongovernmental entities. Accordingly, we have revised references to legacy U.S. GAAP to be consistent with the ASC in our publicly issued consolidated financial statements, starting with the accompanying unaudited consolidated financial statements and disclosures for the period ended September 30, 2009. The adoption of this pronouncement did not have an effect on our consolidated financial statements.

New Accounting Standards Recently Issued

In October 2009, the FASB approved for issuance Emerging Issues Task Force issue 08-01, Revenue Arrangements with Multiple Deliverables , currently within the scope of ASC 605. ASC 605 provides principles for allocation of consideration among its multiple-elements, allowing more flexibility in identifying and accounting for separate deliverables under an arrangement. ASC 605 introduces an estimated selling price method for valuing the elements of a bundled arrangement if vendor-specific objective evidence or third-party evidence of selling price is not available and significantly expands related disclosure requirements. This accounting standard is effective on a prospective basis for revenue arrangements entered into or materially modified in fiscal years beginning on or after June 15, 2010. Alternatively, adoption may be on a retrospective basis, and early application is permitted. We do not believe the adoption of this accounting standard will have a material effect on our consolidated results of operations or financial condition.

2. Fair Value Measurements

As defined in the authoritative guidance for fair value measurements and disclosures under ASC 820 (formerly SFAS No. 157), fair value is based on the price that would be received to sell an asset or would be paid to transfer a liability in an orderly transaction between market participants at the measurement date. To increase the comparability and consistency of fair value measurements, ASC 820 prescribes a fair value hierarchy that prioritizes observable and unobservable inputs used to measure fair value into three broad levels which are described below:

Level 1:	Inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities at the measurement date.
Level 2:	Inputs are quoted prices for similar items in active markets or inputs are quoted prices for identical or similar items in markets that are not active.
Level 3:	Inputs are unobservable due to little or no market data availability and inputs are usually developed by management or a third-party which reflect those inputs that a market participant would use. The fair value hierarchy gives the lowest priority to Level 3 inputs.

Table of Contents

At September 30, 2009, cash and cash equivalents (instruments with maturities of three months or less at the date of purchase) were $25.6 million and primarily invested in money market accounts. We measure our cash equivalents on a recurring basis. The fair value of our cash equivalents, which are current assets, is based on Level 1 criteria in which their carrying amount is a reasonable estimate of their fair value based on daily quoted market prices.

At September 30, 2009, we held investment securities-current of $21.4 million consisting of Auction Rate Securities (ARS), all of which had AAA ratings at the time of purchase, that principally represent interests in government-guaranteed student loans and we held an ARS Put (as defined below) in the amount of $5.3 million. In August 2008, UBS AG and its affiliates (UBS), the brokerage firm through which we purchased the majority of our ARS, entered into a settlement with the Securities and Exchange Commission (SEC), the New York Attorney General and other state agencies. Pursuant to the settlement, UBS issued to us Auction Rate Security Rights, which would allow us to sell to UBS our ARS held in accounts with UBS (ARS Rights Offer). As part of the ARS Rights Offer, we received the right to sell to UBS our ARS held in accounts with UBS at par value any time during the period beginning June 30, 2010 and ending July 2, 2012 (ARS Put). As part of the settlement, UBS also offered to us a no net cost loan program, whereby we would be able to borrow up to 75 percent of the market value, as determined by UBS at its sole discretion, of our ARS that have been pledged as collateral at an interest cost that would not exceed the interest being paid on the underlying ARS investments (ARS Loan). Under the terms of the ARS Loan, UBS may demand full or partial payment of the ARS Loan, at its sole option and without cause, at any time. If at any time UBS exercises its right to terminate the credit line agreement governing the ARS Loan, then UBS is required to provide, as soon as reasonably possible, alternative financing on substantially the same terms and conditions as those under the credit line agreement and the agreement will remain in full force and effect until such time as such alternative financing has been established. In January 2009, we were approved for the ARS Loan in the amount of $15.9 million and drew down the entire preapproved amount. In addition, in February 2009, we borrowed an additional $2.2 million under the ARS Loan, bringing the total amount outstanding under the ARS Loan to $18.1 million, following UBS decision to increase our availability under the ARS Loan. All cash received under the ARS Loan was invested in money market accounts. At June 30, 2009, the ARS associated with the ARS Rights Offer and the ARS Put were reclassified out of long-term assets to current assets due to the time frame in which they can be readily converted to cash.

At September 30, 2009, the carrying cost of the ARS Loan was $17.7 million. For the three months and nine months ended September 30, 2009, $200,000 and $300,000, respectively, of our current investment securities were redeemed at par value, with the proceeds being used to pay down the outstanding balance of the ARS Loan.

At September 30, 2009, we held long-term investments of $2.5 million which consisted of ARS that principally represent interests of government-guaranteed student loan securities, insurance notes and portfolios of securities (primarily commercial paper).

Table of Contents

At September 30, 2009, our total ARS portfolio (both current and long-term) totaled $23.9 million, of which $2.2 million consisted of private placement securities. None of the underlying collateral of our ARS portfolio consisted of subprime mortgages or collateralized debt obligations. Our ARS were designated as trading investment securities at December 31, 2008. We measure all of our ARS and the ARS Put on a recurring basis based on Level 3 criteria because neither an active primary nor active secondary market exists for these securities. The table below reconciles fair value of our ARS trading investment securities and the ARS Put at December 31, 2008 with fair value at September 30, 2009, as determined by Level 3 (unobservable) inputs:

	Fair Value at 12/31/08	Transfers in/ (out) of Level 3 1/1/09-9/30/09	Transfers in/(out) of Long-term to Current 1/1/09-9/30/09	Sales/ Redemptions 1/1/09-9/30/09	Impairment Charge at 9/30/09	Gain at 9/30/09	Fair Value at 9/30/09
Auction rate securities(1)	$ 21,055,569	$	$ (21,055,569)	$	$	$	$
Auction rate securities(2)	2,991,745			(546,846)		37,471	2,482,370
Total long-term investments	$ 24,047,314	$	$ (21,055,569)	$ (546,846)	$	$ 37,471	$ 2,482,370
Long-term asset, ARS Put(3)	$ 5,792,701	$	$ (5,792,701)	$	$	$	
Investment-current(1)	$	$	$ 21,055,569	$ (300,000)	$	$ 634,038	$ 21,389,607
ARS Put-current(3)	$	$	$ 5,792,701	$	$ (457,716)	$	$ 5,334,985

(1) Aggregated fair value reported at September 30, 2009 reflects fair value as determined by our discounted cash flow model with liquidity discounts, pursuant to which we took into consideration the brokerage firm s pricing model, the tax status (taxable vs. tax exempt) of the security, credit quality of the issuer, assumed maturity (seven years), insurance wraps and the portfolio composition. We also made assumptions regarding future cash flows and the likelihood of the ARS being redeemed or refinanced. In addition, we performed a sensitivity analysis by calculating fair value with a maturity of one year through ten years. The annual coupon rate utilized was set at the U.S. Treasury Department published average of the bond equivalent rates of the 91-day Treasury bills auctioned during the quarter ending September 30, 2009 (which was the Federal Family Education Loan Program special allowance rate for the quarter ending September 30, 2009) plus 120 basis points. We believe that using this interest rate is reasonable given that a majority of our ARS portfolio is collateralized by student loans guaranteed by the U.S. government under the Federal Family Education Loan Program. Using our discounted cash flow model with liquidity discounts ranging from 3% to 32%, we calculated aggregate fair value for these securities, which ranged between $25.3 million with a two-year maturity, $22.9 million with a five-year maturity and $19.4 million with a ten-year maturity. As of September 30, 2009, these ARS continued to pay interest according to their stated interest terms, and we received a partial redemption at par value of $300,000 on one of the securities in this portfolio. In addition, as these investment securities are trading securities, the increase of approximately $634,000 in the overall fair value of the ARS was recorded as a gain in our consolidated statement of operations. Pursuant to the ARS Rights Offer, the earliest date that we can redeem these investment securities at par is June 30, 2010; therefore, at June 30, 2009, we reclassified these investment securities out of long-term assets and into current assets in our consolidated balance sheets.

(2) Aggregated fair value reported at September 30, 2009 reflects fair value as determined by our discounted cash flow model, which employed liquidity discounts ranging from 3% to 28% depending on the security type and included assumptions regarding future cash flows and the likelihood of the redemption or refinancing of such ARS. We also performed a sensitivity analysis by calculating fair value with a maturity of one year through ten years. The interest rate utilized in the model was either the London Interbank Offered Rate (LIBOR) plus the spread, as indicated in the respective security prospectus which was generally 200 basis points, or the U.S. Treasury Department published average of the bond equivalent rates of the 91-day Treasury bills auctioned during the quarter ending September 30, 2009 (which was the Federal Family Education Loan Program special allowance rate for the quarter ending September 30, 2009) plus 120 basis points for the ARS collateralized by student loans. The LIBOR rate was per bankrate.com, which we deemed as a reasonable source given it is a widely utilized third-party rate source. We believe that utilizing the Federal Family Education Loan Program special allowance rate for the student loan ARS is reasonable given the collateral of the ARS is student loans. Using this methodology, we calculated aggregate fair value for these securities, which ranged between

Table of Contents

$2.9 million with a two-year maturity, $2.6 million with a five-year maturity and $2.3 million with a ten-year maturity. As of September 30, 2009, the ARS continue to pay interest according to their stated interest terms. Because these investment securities are trading securities, the approximately $37,000 increase in fair value was recorded as a gain in our consolidated statement of operations. In addition, because of our expectation as to when we may be required to liquidate these ARS for operating purposes, these securities are classified as long-term investments in our consolidated balance sheets.

(3) We elected to measure the ARS Put under the fair value option of ASC 825, authoritative guidance on financial instruments (formerly SFAS No. 159), to mitigate the volatility in reported earnings due to the linkage of certain of our ARS and the ARS Put. Fair value of the ARS Put, which equaled $5.3 million at September 30, 2009, was also determined through the use of a discounted cash flow valuation model with assumptions being made related to interest rate, maturity and liquidity. We effectively used a liquidity discount of approximately 5%, an interest rate of approximately 5% which took into consideration the brokerage firm s weighted average cost of capital and a maturity of 12 months. Based on our discounted cash flow valuation, at September 30, 2009, we recorded an impairment charge of approximately $458,000 in our consolidated statement of operations, which minimized the gain we recognized on the linked ARS. In addition, at June 30, 2009, we reclassified the ARS Put out of long-term assets to current assets because it can be exercised within 12 months.

3. Net Loss Per Share

Net loss per share is presented as basic and diluted net loss per share. Basic net loss per share is calculated by dividing the net loss by the weighted average number of common shares outstanding for the period, without consideration for common stock equivalents. Diluted net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted average number of common share equivalents outstanding for the period determined using the treasury-stock method. For purposes of this calculation, convertible preferred stock, stock options and warrants are considered to be common stock equivalents and are only included in the calculation of diluted net loss per share when their effect is dilutive. Potentially dilutive securities of 387,000 for the nine months ended September 30, 2009 were excluded from determining diluted earnings per share because of their anti-dilutive effect. There were no potentially dilutive securities for the nine months ended September 30, 2008.

4. Comprehensive Income (Loss)

We have applied the authoritative guidance for comprehensive income under ASC 220 (formerly SFAS No. 130), which requires that all components of comprehensive income (loss), including net income (loss), be reported in the financial statements in the period in which they are recognized. Comprehensive income (loss) is defined as the change in equity (net assets) during a period from transactions and other events and circumstances from non-owner sources. Net income (loss) and other comprehensive income (loss), including foreign currency translation adjustments and unrealized gains and losses on investments, are reported, net of their related tax effect, to arrive at comprehensive income (loss). Our comprehensive loss includes unrealized losses on marketable securities and currency translation. The table below sets forth the components of comprehensive loss at:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2009	2008	2009	2008
Net loss	$ (4,795,087)	$ (4,815,167)	$ (14,453,314)	$ (20,510,002)
Currency translation	7,949	(1,951)	(30,214)	(46,691)
Unrealized loss on investment securities		(545,912)		(545,912)
Comprehensive loss	$ (4,787,138)	$ (5,363,030)	$ (14,483,528)	$ (21,102,605)

Table of Contents

5. Share-Based Payments

We currently maintain two equity-based compensation plans: (i) the MediciNova, Inc. 2000 General Stock Incentive Plan (the 2000 Plan) and (ii) the MediciNova, Inc. Amended and Restated 2004 Stock Incentive Plan (the 2004 Plan). We currently grant stock options to our employees, officers, directors and consultants under the 2004 Plan, which is the successor to the 2000 Plan. Stock options issued to non-employees were recorded at their fair value as determined in accordance with ASC 505.50, authoritative guidance on equity-based payments to non-employees (formerly EITF No. 96-18).

For the three months ended September 30, 2009 and 2008, share-based compensation expense related to stock options was recorded as a component of general and administrative expense, which equaled approximately $0.5 million and $0.5 million, respectively, and research and development expense, which equaled approximately $0.1 million and $0.3 million, respectively. For the nine months ended September 30, 2009 and 2008, share-based compensation expense related to stock options was recorded as a component of general and administrative expense, which equaled approximately $1.4 million and $1.3 million, respectively, and research and development expense, which equaled approximately $0.5 million and $1.0 million, respectively. During the three months and nine months ended September 30, 2009, stock options to purchase 77,854 shares of common stock were exercised for approximately $0.3 million. As of September 30, 2009, there was $2.7 million of unamortized compensation cost related to unvested stock option awards, which we expect to recognize over a remaining weighted-average vesting period of 1.6 years.

The exercise price of stock options to purchase 113,000 shares of common stock and 521,373 shares of common stock granted during the three months and nine months ended September 30, 2009 was equal to market value on the date of grant and the share-based compensation expense for such stock options is reflected in operating results for the three months and nine months ended September 30, 2009. The estimated fair value of each stock option award was determined on the date of grant using the Black-Scholes option valuation model with the following weighted-average assumptions for stock option grants:

	Three Months Ended September 30, 2009	Three Months Ended September 30, 2008	Nine Months Ended September 30, 2009	Nine Months Ended September 30, 2008
Risk-free interest rate	2.46%	2.88%	1.79%	3.00%
Expected volatility of common stock	73%	69%	70%	69%
Dividend yield	0.00%	0.00%	0.00%	0.00%
Expected option term (in years)	4.09	4.00	4.03	4.00

The risk-free interest rate assumption is based upon observed interest rates appropriate for the expected term of our outstanding stock options. The expected volatility of our common stock is based on the average volatility of certain peers within our industry sector and management s judgment. We have not paid any dividends on our common stock since our inception, and we do not anticipate paying any dividends on our common stock in the foreseeable future. The expected term of employee stock options is based on the simplified method for plain vanilla options as provided by Staff Accounting Bulletin (SAB) No. 107 and SAB No. 110, as we concluded that our historical stock option exercise experience does not provide a reasonable basis for us to estimate the expected term.

As share-based compensation expense recognized in our consolidated statement of operations for the three months and nine months ended September 30, 2009 was based on stock option awards ultimately expected to vest, such expense is reduced for estimated forfeitures. SFAS 123R requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. We have very few employees and our stock options vest monthly; therefore, we do not estimate any forfeitures in 2009, and we will adjust our stock-based compensation expense should any forfeitures occur. The weighted-average fair value of each stock option granted during the three months and nine months ended September 30, 2009, estimated as of the grant date using the Black-Scholes option valuation model, was $2.68 per stock option

Table of Contents

and $1.49 per stock option, respectively, whereas the weighted-average fair value of each stock option granted during the three months and nine months ended September 30, 2008 was $1.71 per stock option and $2.37 per stock option, respectively.

6. Commitments and Contingencies

Legal Proceedings

We may become involved in various disputes and legal proceedings which arise in the ordinary course of business. While it is not possible to accurately predict or determine the outcome of these matters, an adverse result in any of these matters may occur which could harm our business. See Footnote 9, Subsequent Events, regarding recent legal developments.

7. Stockholders Equity

Stock Options

We currently maintain two equity-based compensation plans: (i) the 2000 Plan and (ii) the 2004 Plan. Each of the 2000 Plan and the 2004 Plan provides for the issuance of equity-based awards to employees, officers, directors and consultants and are administered by our board of directors or a committee thereof. Stock options granted under each plan vest and expire based on periods determined by the board of directors or a committee thereof, but in no event can the expiration date be later than ten years from the date of grant (five years after the date of grant if the grant is an incentive stock option to an employee who owns more than 10% of the total combined voting power of all classes of our outstanding stock (a 10% owner)). Stock options may be either incentive stock options or non-qualified stock options. The per share exercise price of an incentive stock option may not be less than 100% of the fair market value of our common stock on the date the option is granted (110% of the fair market value if the grant is to a 10% owner). The per share exercise price of a non-qualified stock option may not be less than 85% of the fair market value of our common stock on the date the stock option is granted.

We currently grant stock options to our employees, officers, directors and consultants under the 2004 Plan, the successor to the 2000 Plan. No additional stock options have been or will be issued under the 2000 Plan subsequent to our initial public offering. However, the stock options previously granted under the 2000 Plan will remain outstanding until the earlier of expiration or exercise.

A summary of the changes in stock options outstanding under the 2000 Plan and 2004 Plan during the nine months ended September 30, 2009 is as follows:

	Stock Options	Weighted Average Exercise Price
Balance at December 31, 2008	2,579,511	$ 10.59
Granted	521,373	$ 2.77
Exercised	(77,854)	$ 4.18
Cancelled	(935,450)	$ 11.44
Balance at September 30, 2009	2,087,580	$ 8.58

The aggregate intrinsic value of stock options exercised during the three months and nine months ended September 30, 2009 was approximately $143,000. The aggregate intrinsic value of stock options outstanding at September 30, 2009 and exercisable at September 30, 2009 was approximately $1.9 million and approximately $445,000, respectively. Of the total stock options outstanding as of September 30, 2009, options to purchase 1,229,352 shares of common stock are exercisable, with a weighted average exercise price of $10.44 per share and a weighted average contractual life of 7.1 years.

Table of Contents

Employee Stock Purchase Plan

Under the MediciNova, Inc. 2007 Employee Stock Purchase Plan (ESPP), 300,000 shares of our common stock have been reserved for issuance. In addition, the shares reserved will automatically increase by a number equal to the lesser of: (i) 15,000 shares, (ii) 1% of the outstanding shares of our common stock on the last day of the immediately preceding fiscal year or (iii) such lesser amount as determined by the Board. The ESPP permits full-time employees to purchase our common stock through payroll deductions (which cannot exceed 15% of each employee s compensation) at the lower of 85% of fair market value at the beginning of the offering period or the end of each six-month purchase period. The estimated fair value of each ESPP purchase is determined on the date the offering period begins using the Black-Scholes option valuation model. For the nine months ended September 30, 2009, 37,021 shares of common stock were issued under the ESPP and 250,685 shares of common stock were available for future issuance.

8. Avigen Transaction

On June 25, 2009, we jointly announced with Avigen that the two companies confirmed a mutual understanding of certain key terms for our proposed acquisition of Avigen that would combine the companies broad neurological clinical development programs based on ibudilast (our MN-166 product candidate and Avigen s AV411 product candidate).

On August 20, 2009, we, Absolute Merger, Inc., our wholly-owned subsidiary (Merger Sub), and Avigen entered into an Agreement and Plan of Merger (the Merger Agreement). The Merger Agreement provides that, upon the terms and subject to the conditions set forth therein, Avigen will merge with and into Merger Sub with Avigen continuing as the surviving entity and wholly-owned subsidiary of MediciNova (the Merger). The boards of directors of each of MediciNova and Avigen have approved the Merger and the Merger Agreement.

On September 17, 2009, we filed the Form S-4 Registration Statement with the SEC regarding the proposed merger with Avigen.

On October 14, 2009, we received a SEC Comment Letter regarding the Form S-4 Registration Statement which we filed in September 2009. On October 23, 2009, we filed Amendment No. 1 to Form S-4 Registration Statement and a response letter to the SEC staff s comments.

9. Subsequent Events

Legal Developments

On August 24, 2009, The Pennsylvania Avenue Funds, an Avigen stockholder, filed a complaint in Alameda County Superior Court alleging that Avigen s directors breached their fiduciary duties in connection with the proposed transaction with us. On October 15, 2009, The Pennsylvania Avenue Funds filed an amended complaint adding us as a defendant. In the amended complaint, the Pennsylvania Avenue Funds alleged, among other things, that we aided and abetted the alleged breach of fiduciary duties by the Avigen directors. The Pennsylvania Avenue Funds purportedly brings the action on behalf of a stockholder class and seeks injunctive relief, compensatory and rescissory damages, and attorney s fees. We believe we have meritorious defenses, and we intend to defend ourselves in this lawsuit. We do not believe that this lawsuit will have a material adverse effect on our business, financial condition or operating results.

Table of Contents

Avigen, Inc.

Financial Statements

Years Ended December 31, 2008, 2007 and 2006 and

Three and Nine Months Ended September 30, 2009 and 2008 (unaudited)

	Page
Report of Independent Registered Public Accounting Firm	FI-41
Report of Independent Registered Public Accounting Firm	FI-42
Condensed Financial Statements for the Years Ended December 31, 2008, 2007 and 2006	
Balance Sheets	FI-43
Statements of Operations	FI-44
Statements of Stockholders Equity	FI-45
Statements of Cash Flows	FI-52
Notes to Financial Statements	FI-53
Condensed Financial Statements for the Three and Nine Months Ended September 30, 2009 and 2008 (unaudited)	
Condensed Balance Sheets	FI-75
Condensed Statements of Operations	FI-76
Condensed Statements of Cash Flows	FI-77
Notes to Condensed Financial Statements	FI-78

Table of Contents

REPORT OF ODENBERG, ULLAKKO, MURANISHI & CO. LLP,

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of Avigen, Inc.

We have audited the accompanying balance sheets of Avigen, Inc. (a development stage company) as of December 31, 2008 and 2007, and the related statements of operations, stockholders equity and cash flows for each of the three years in the period ended December 31, 2008 and for the period from inception (October 22, 1992) through December 31, 2008. These financial statements are the responsibility of the company s management. Our responsibility is to express an opinion on these financial statements based on our audits. The cumulative statements of operations, stockholders equity and cash flows for the period from inception (October 22, 1992) through December 31, 2005 were audited by other auditors. Our report, insofar as it relates to the amounts included for the period from October 22, 1992 to December 31, 2005, is based solely on the report of the other auditors.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, based on our audits and the report of other auditors, the financial statements referred to above present fairly, in all material respects, the financial position of Avigen, Inc. (a development stage company) at December 31, 2008 and 2007, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2008 and for the period from inception (October 22, 1992) through December 31, 2008, in conformity with U.S. generally accepted accounting principles.

As discussed in Note 1 to the financial statements, on January 1, 2008, the company adopted Statement of Financial Accounting Standards (SFAS) No. 157, *Fair Value Measurements*. Also as discussed in Note 1 to the financial statements, on January 1, 2007, the company adopted Financial Accounting Standards Board Interpretation No. 48, *Accounting for Uncertainty in Income Taxes, an Interpretation of FAS 109*.

/s/ ODENBERG, ULLAKKO, MURANISHI & CO. LLP

San Francisco, California

March 13, 2009

Table of Contents

REPORT OF ERNST & YOUNG LLP,

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of Avigen, Inc.

We have audited the accompanying statements of operations, stockholders equity and cash flows of Avigen, Inc. (a development stage company) for the period from inception (October 22, 1992) through December 31, 2005. These financial statements are the responsibility of the Company s management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the results of operations and cash flows for Avigen, Inc. for the period from inception (October 22, 1992) through December 31, 2005, in conformity with U.S. generally accepted accounting principles.

/s/ ERNST & YOUNG LLP

Palo Alto, California

March 14, 2006

Table of Contents

AVIGEN, INC.

(a development stage company)

BALANCE SHEETS

(in thousands, except share and per share information)

	December 31, 2008	December 31, 2007
ASSETS		
Current assets:		
Cash and cash equivalents	$ 9,304	$ 359
Available-for-sale securities	38,499	68,327
Restricted investments	7,036	428
Accrued interest	468	717
Prepaid expenses and other current assets	446	778
Total current assets	55,753	70,609
Restricted investments	2,000	9,000
Property and equipment, net	52	1,263
Deposits and other assets	241	197
Total assets	$ 58,046	$ 81,069
LIABILITIES AND STOCKHOLDERS EQUITY		
Current liabilities:		
Accounts payable and other accrued liabilities	$ 2,019	$ 2,039
Accrued compensation and related expenses	1,102	879
Loan payable	7,000	
Other current liabilities	119	523
Total current liabilities	10,240	3,441
Long-term loan payable		7,000
Deferred rent and other liabilities	602	796
Total liabilities	10,842	11,237
Commitments and contingencies		
Stockholders equity:		
Preferred stock, $0.001 par value, 5,000,000 shares authorized, none issued and outstanding		
Common stock, $0.001 par value, 100,000,000 shares authorized, 29,769,115 and 29,692,709 shares issued and outstanding at December 31, 2008 and December 31, 2007, respectively	30	29
Additional paid-in capital	292,611	290,147
Accumulated other comprehensive income	357	351
Deficit accumulated during development stage	(245,794)	(220,695)
Total stockholders equity	47,204	69,832
Total liabilities and stockholders equity	$ 58,046	$ 81,069

See accompanying notes.

Table of Contents

AVIGEN, INC.

(A Development Stage Company)

STATEMENTS OF OPERATIONS

(in thousands, except for share and per share information)

	Year Ended December 31,			Period from October 22, 1992 (inception) through December 31,
	2008	2007	2006	2008
Revenue	$ 7,100	$	$ 103	$ 22,674
Operating expenses:				
Research and development	23,607	20,681	15,219	200,787
General and administrative	8,696	8,633	8,860	86,643
Impairment loss related to long-lived assets	139		450	6,719
In-license fees	2,500		3,000	10,534
Total operating expenses	34,942	29,314	27,529	304,683
Loss from operations	(27,842)	(29,314)	(27,426)	(282,009)
Interest expense	(293)	(488)	(467)	(3,951)
Interest income	2,784	3,954	3,002	38,732
Sublease income	365	703	565	1,700
Other (expense) income, net	(113)	(19)	70	(266)
Net loss	$ (25,099)	$ (25,164)	$ (24,256)	$ (245,794)
Basic and diluted net loss per common share	$ (0.84)	$ (0.90)	$ (1.03)	
Shares used in basic and diluted net loss per common share calculation	29,765,651	27,962,202	23,509,378	

See accompanying notes.

Table of Contents

AVIGEN, INC.

(a development stage company)

STATEMENTS OF STOCKHOLDERS EQUITY

Period from October 22, 1992 (inception) through December 31, 2008

(in thousands, except for share information)

	Preferred Stock		Common Stock		Class B Convertible Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Gain (Loss)	Deficit Accumulated During the Development Stage	Total Stockholders Equity
	Shares	Amount	Shares	Amount	Shares	Amount				
Balance at October 22, 1992 (inception)		$		$		$	$	$	$	$
Issuance of common stock at $.004 per share in November and December 1992			896,062	1			4			5
Issuance of common stock at $.554 per share from January to June 1993 for services rendered			20,316				11			11
Issuance of common stock at $.004 to $.222 per share from November 1992 to March 1993 for cash			1,003,406	1			54			55
Issuance of Class B common stock at $.004 per share in December 1992 for cash					90,293		1			1
Issuance of Series A preferred stock at $4.43 per share from March to June 1993 for cash (net of issuance costs of $410,900)	678,865	1					2,595			2,596
Issuance of Series A preferred stock at $3.85 per share in March 1993 for cancellation of note payable and accrued interest	68,991						266			266
Issuance of common stock at $.004 per share in November 1993 pursuant to antidilution rights			22,869				1			1
Issuance of Series A preferred stock at $4.43 per share from July to November 1993 for cash and receivable (net of issuance costs of $187,205)	418,284						1,665			1,665
Issuance of Series B preferred stock at $5.54 per share in March 1994 for cash (net of issuance costs of $34,968)	128,031						674			674
Issuance of Series C preferred stock at $4.87 per share from July 1994 to June 1995 for cash and receivables (net of issuance costs of $259,620)	739,655	1					3,344			3,345
Issuance of Series C preferred stock at $4.87 per share in June 1995 for cancellation of notes payable	35,500						173			173
Net loss and comprehensive loss from inception to June 30, 1995									(8,608)	(8,608)

Balance at June 30, 1995 (carried forward)	2,069,326	$	2	1,942,653	$	2	90,293	$	$	8,788	$	$	(8,608)	$	184

Table of Contents

AVIGEN, INC.

(a development stage company)

STATEMENTS OF STOCKHOLDERS EQUITY (Continued)

Period from October 22, 1992 (inception) through December 31, 2008

(in thousands, except for share information)

	Preferred Stock		Common Stock		Class B Convertible Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Gain (Loss)	Deficit Accumulated During the Development Stage	Total Stockholders Equity
	Shares	Amount	Shares	Amount	Shares	Amount				
Balance at June 30, 1995 (brought forward)	2,069,326	$ 2	1,942,653	$ 2	90,293	$	$ 8,788	$	$ (8,608)	$ 184
Issuance of Series C preferred stock at $4.87 per share in July 1995 for cash (net of issuance costs of $26,000)	41,042						174			174
Issuance of Series D preferred stock at $7.09 per share from October 1995 to February 1996 for cash (net of issuance costs of $25,279)	205,351						1,430			1,430
Issuance of Series D preferred stock at $7.09 per share in March 1996 in settlement of accounts payable	22,574						160			160
Issuance of common stock at $.004 per share in March 1996 pursuant to antidilution rights			17,630				1			1
Issuance of stock options in February 1996 in settlement of certain accrued liabilities							137			137
Conversion of Class B common stock to common stock			231,304	1	(90,293)		(1)			
Issuance of warrants to purchase common stock in connection with 1996 bridge financing in March 1996							300			300
Conversion of preferred stock to common stock in May 1996	(2,338,293)	(2)	2,355,753	2			(1)			(1)
Issuance of common stock at $8.00 per share in connection with the May 1996 initial public offering (net of issuance costs of $798,414 and underwriting discount of $1,500,000)			2,500,000	2			17,699			17,701
Proceeds from exercise of options at $0.44 per share in June 1996			6,178				3			3
Repurchase of common stock			(18,325)				(1)			(1)

Deferred compensation				164		164
Amortization of deferred compensation				(128)		(128)
Net loss and comprehensive loss					(4,097)	(4,097)
Balance at June 30, 1996 (carried forward)	$ 7,035,193	$ 7	$	$ 28,725	$	$ (12,705)	$ 16,027

Table of Contents

AVIGEN, INC.

(a development stage company)

STATEMENTS OF STOCKHOLDERS EQUITY (Continued)

Period from October 22, 1992 (inception) through December 31, 2008

(in thousands, except for share information)

	Preferred Stock		Common Stock		Class B Convertible Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Gain (Loss)	Deficit Accumulated During the Development Stage	Total Stockholders Equity
	Shares	Amount	Shares	Amount	Shares	Amount				
Balance at June 30, 1996 (brought forward)	$		7,035,193	$ 7	$	$	28,725	$	$ (12,705)	$ 16,027
Issuance of common stock at $8.00 per share in July 1996 in connection with the exercise of underwriters over-allotment option (net of underwriting discount of $150,000)			250,000				1,850			1,850
Proceeds from exercise of options at $0.44 to $0.71 per share			3,387				1			1
Amortization of deferred compensation							41			41
Net loss and comprehensive loss									(5,578)	(5,578)
Balance at June 30, 1997			7,288,580	7			30,617		(18,283)	12,341
Proceeds from exercise of options at $0.44 to $0.71 per share			17,278				10			10
Amortization of deferred compensation							41			41
Compensation expense related to options granted for services							68			68
Net loss and comprehensive loss									(8,877)	(8,877)
Balance at June 30, 1998			7,305,858	7			30,736		(27,160)	3,583
Proceeds from exercise of options at $0.44 to $4.31 per share			181,045				222			222
Amortization of deferred compensation							41			41
Issuance of common stock at $2.25 $2.94 per share and warrants in August to September 1998 in connection with a Private Placement (net of issuance cost of $233,584)			1,306,505	1			2,734			2,735
Issuance of common stock at $3.81 $4.88 per share and warrants in December 1998 in connection with a Private Placement (net of issuance cost of $438,183)			1,367,280	2			5,195			5,197
Issuance of common stock at $5.50 $6.00 per share and warrants in February to April 1999 in connection with a Private Placement (net of issuance cost of $1,033,225)			2,198,210	2			12,154			12,156

Net loss and comprehensive loss					(9,611)	(9,611)
Balance at June 30, 1999 (carried forward)	$ 12,358,898	$ 12	$	$ 51,082	$ (36,771)	$ 14,323

Table of Contents

AVIGEN, INC.

(a development stage company)

STATEMENTS OF STOCKHOLDERS EQUITY (Continued)

Period from October 22, 1992 (inception) through December 31, 2008

(in thousands, except for share information)

	Preferred Stock		Common Stock		Class B Convertible Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Gain (Loss)	Deficit Accumulated During the Development Stage	Total Stockholders Equity
	Shares	Amount	Shares	Amount	Shares	Amount				
Balance at June 30, 1999 (brought forward)	$		12,358,898	$ 12	$		$ 51,082	$	$ (36,771)	$ 14,323
Proceeds from exercise of options at $0.44 to $15.50			440,259	1			1,533			1,534
Proceeds from exercise of warrants at $2.81 to $31.95			1,017,215	1			8,427			8,428
Amortization of deferred compensation							5			5
Compensation expense related to options granted for services							89			89
Warrants granted for patent licenses							3,182			3,182
Warrants granted for building lease							1,738			1,738
Issuance of common stock at $16.19 to $25.56 per share and warrants in October and November 1999 in connection with a Private Placement (net of issuance cost of $2,804,255)			2,033,895	2			37,220			37,222
Issuance of common stock at $26 per share in April and May 2000 in connection with a Public Offering (net of issuance cost of $2,288,966)			1,150,000	1			27,610			27,611
Comprehensive loss:										
Net loss									(15,039)	(15,039)
Net unrealized loss on available-for-sale securities								(80)		(80)
Comprehensive loss										(15,119)
Balance at June 30, 2000			17,000,267	17			130,886	(80)	(51,810)	79,013
Proceeds from exercise of options at $0.44 to $34.00 per share			165,700				869			869
Proceeds from exercise of warrants at $2.18 to $23.43			174,255	1			771			772
Compensation expense related to options granted for services							336			336
Issuance of common stock at $37.50 to $45.06 per share in November 2000 Public Offering (net of issuance cost of $4,622,188)			2,291,239	2			86,084			86,086

Issuance of common stock at $47.82 per share in February 2001 pursuant to a collaboration agreement	313,636		15,000				15,000
Comprehensive loss:							
Net loss						(16,014)	(16,014)
Net unrealized gain on available-for-sale securities				1,120			1,120
Comprehensive loss							(14,894)
Balance at June 30, 2001 (carried forward)	$ 19,945,097	$ 20	$	$ 233,946	$ 1,040	$ (67,824)	$ 167,182

Table of Contents

AVIGEN, INC.

(a development stage company)

STATEMENTS OF STOCKHOLDERS EQUITY (Continued)

Period from October 22, 1992 (inception) through December 31, 2008

(in thousands, except for share information)

	Preferred Stock		Common Stock		Class B Convertible Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Gain (Loss)	Deficit Accumulated During the Development Stage	Total Stockholders Equity
	Shares	Amount	Shares	Amount	Shares	Amount				
Balance at June 30, 2001 (brought forward)	$		19,945,097	$ 20	$		$ 233,946	$ 1,040	$ (67,824)	$ 167,182
Proceeds from exercise of options at $2.13 to $6.75 per share			11,282				60			60
Proceeds from exercise of warrants $7.50 per share			9,955				75			75
Compensation expense related to options granted for services							179			179
Comprehensive loss:										
Net loss									(11,319)	(11,319)
Net unrealized gain on available-for-sale securities								1,173		1,173
Comprehensive loss										(10,146)
Balance at December 31, 2001			19,966,334	20			234,260	2,213	(79,143)	157,350
Proceeds from exercise of options at $1.875 to $8.525 per share			34,627				113			113
Proceeds from exercise of warrants at $7.50 per share			99,585				747			747
Compensation expense related to options granted for services							217			217
Comprehensive loss:										
Net loss									(27,739)	(27,739)
Net unrealized loss on available-for-sale securities								(631)		(631)
Comprehensive loss										(28,370)
Balance at December 31, 2002			20,100,546	20			235,337	1,582	(106,882)	130,057
Proceeds from exercise of options at $2.12 to $6.50 per share			63,746				242			242
Proceeds from exercise of warrants at $2.47 to $6.09 per share			112,102				476			476
Compensation expense related to options granted for services							65			65
Comprehensive loss:										
Net loss									(25,774)	(25,774)

Net unrealized loss on available-for-sale securities				(1,180)		(1,180)
Comprehensive loss						(26,954)
Balance at December 31, 2003 (carried forward)	$ 20,276,394	$ 20	$ $ 236,120	$ 402	$ (132,656)	$ 103,886

Table of Contents

AVIGEN, INC.

(a development stage company)

STATEMENTS OF STOCKHOLDERS EQUITY (Continued)

Period from October 22, 1992 (inception) through December 31, 2008

(in thousands, except for share information)

	Preferred Stock		Common Stock		Class B Convertible Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Gain (Loss)	Deficit Accumulated During the Development Stage	Total Stockholders Equity
	Shares	Amount	Shares	Amount	Shares	Amount				
Balance at December 31, 2003 (brought forward)	$		20,276,394	$ 20	$		$ 236,120	$ 402	$ (132,656)	$ 103,886
Proceeds from exercise of options at $0.443 to $6.313 per share			86,856				403			403
Proceeds from exercise of warrants at $6.05 per share			18,000				109			109
Compensation expense related to options granted for services							230			230
Warrants granted for patent licenses							97			97
Comprehensive loss:										
Net loss									(23,923)	(23,923)
Net unrealized loss on available-for-sale securities								(927)		(927)
Comprehensive loss										(24,850)
Balance at December 31, 2004			20,381,250	20			236,959	(525)	(156,579)	79,875
Proceeds from exercise of options at $0.487 to $3.53 per share			526,023	1			286			287
Compensation expense related to options granted for services							13			13
Comprehensive loss:										
Net loss									(14,696)	(14,696)
Net unrealized loss on available-for-sale securities								(15)		(15)
Comprehensive loss										(14,711)
Balance at December 31, 2005			20,907,273	21			237,258	(540)	(171,275)	65,464
Proceeds from exercise of options at $2.00 to $5.93 per share			269,098				1,012			1,012
Issuance of common stock at $5.37 per share in May 2006 in connection with a Private Placement (net of issuance cost of $1,802,149)			3,939,760	4			19,350			19,354
Stock-based compensation expense							1,381			1,381
Compensation expense related to options granted for services							114			114

Comprehensive loss:						
Net loss					(24,256)	(24,256)
Net unrealized gain on available-for-sale securities				408		408
Comprehensive loss						(23,848)
Balance at December 31, 2006 (carried forward)	$ 25,116,131	$ 25	$ $ 259,115	$ (132)	$ (195,531)	$ 63,477

FI-50

Table of Contents

AVIGEN, INC.

(a development stage company)

STATEMENTS OF STOCKHOLDERS EQUITY (Continued)

Period from October 22, 1992 (inception) through December 31, 2008

(in thousands, except for share information)

	Preferred Stock		Common Stock		Class B Convertible Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Gain (Loss)	Deficit Accumulated During the Development Stage	Total Stockholders Equity
	Shares	Amount	Shares	Amount	Shares	Amount				
Balance at December 31, 2006 (brought forward)	$		25,116,131	$ 25	$		$ 259,115	$ (132)	$ (195,531)	$ 63,477
Proceeds from exercise of options at $2.68 to $6.31 per share			163,387				593			593
Issuance of common stock at $6.94 per share in April and May 2007 Public Offering (net of issuance cost of $2,110,193)			4,413,191	4			28,513			28,517
Stock-based compensation expense							1,834			1,834
Compensation expense related to options granted for services							92			92
Comprehensive loss:										
Net loss									(25,164)	(25,164)
Net unrealized gain on available-for-sale securities								483		483
Comprehensive loss										(24,681)
Balance at December 31, 2007			29,692,709	29			290,147	351	(220,695)	69,832
Proceeds from exercise of options at $3.13 to $3.53 per share			76,406	1			261			262
Stock-based compensation expense							2,174			2,174
Compensation expense related to options granted for services							29			29
Comprehensive loss:										
Net loss									(25,099)	(25,099)
Net unrealized gain on available-for-sale securities								6		6
Comprehensive loss										(25,093)
Balance at December 31, 2008	$		29,769,115	$ 30	$		$ 292,611	$ 357	$ (245,794)	$ 47,204

See accompanying notes

Table of Contents

AVIGEN, INC.

(a development stage company)

STATEMENTS OF CASH FLOWS

(in thousands)

	Year Ended December 31,			Period from October 22, 1992 (inception) through December 31,
	2008	2007	2006	2008
Operating Activities				
Net loss	$ (25,099)	$ (25,164)	$ (24,256)	$ (245,794)
Adjustments to reconcile net loss to net cash used in operating activities:				
Depreciation and amortization	682	1,594	1,273	22,075
Loss (gain) on disposal of property and equipment	278	(37)	(18)	158
Impairment loss related to long-lived assets	139		450	6,719
Amortization of deferred compensation				164
Non-cash rent expense for warrants issued in connection with the extension of the building lease	36	217	217	1,736
Amortization of deferred rent	(194)	(774)	(162)	(176)
Non-cash compensation expense for common stock, warrants, and stock options issued for services	2,203	1,926	1,495	7,342
Warrants issued for patent license				3,182
Changes in operating assets and liabilities:				
Accrued interest	249	(65)	(182)	(284)
Prepaid expenses and other current assets	298	(514)	292	(845)
Deposits and other assets	(44)	210	79	(97)
Accounts payable, other accrued liabilities and accrued compensation and related expenses	284	1,471	452	4,452
Net cash used in operating activities	$ (21,168)	$ (21,136)	$ (20,360)	$ (201,368)
Investing Activities				
Purchases of property and equipment	(181)	(203)	(176)	(29,015)
Proceeds from disposal of property and equipment	17	92	142	482
Settlement of asset retirement obligation	(210)			(210)
Decrease (increase) in restricted investments	391	1,000		(9,037)
Purchases of available-for-sale securities	(21,107)	(109,538)	(109,261)	(1,011,466)
Maturities of available-for-sale securities	50,942	100,218	99,594	973,325
Net cash provided by (used in) investing activities	29,852	(8,431)	(9,701)	(75,921)
Financing Activities				
Proceeds from long-term obligations				10,133
Repayment of long-term obligations		(1,000)		(2,710)
Proceeds from bridge financing				1,937
Repayment of bridge financing				(2,131)
Payments on capital lease obligations				(2,154)
Proceeds from sale-leaseback of equipment				1,927
Proceeds from issuance of preferred stock, net of issuance costs				9,885
Proceeds from warrants and options exercised	261	593	1,012	16,215
Proceeds from issuance of common stock, net of issuance costs and repurchases		28,518	19,354	253,491
Net cash provided by financing activities	261	28,111	20,366	286,593

Net increase (decrease) in cash and cash equivalents	8,945	(1,456)	(9,695)	9,304
Cash and cash equivalents, beginning of period	359	1,815	11,510	
Cash and cash equivalents, end of period	$ 9,304	$ 359	$ 1,815	$ 9,304
Supplemental disclosure				
Issuance of warrants in connection with the extension of the building lease	$	$	$	$ 1,738
Issuance of preferred stock for cancellation of accounts payable, notes payable and accrued interest				499
Issuance of stock options for repayment of certain accrued liabilities				137
Issuance of warrants in connection with bridge financing				300
Deferred compensation related to stock option grants				164
Purchase of property and equipment under capital lease financing				226
Cash paid for interest	293	488	467	3,458

See accompanying notes.

Table of Contents

AVIGEN, INC.

(a development stage company)

NOTES TO FINANCIAL STATEMENTS

1. Summary of Significant Accounting Policies

Description of Business and Basis of Presentation

Avigen, Inc. was incorporated on 1992 in Delaware and has focused on identifying and developing differentiated products to treat patients with serious disorders. Our current product candidates primarily address large markets in pain and addiction. Since our inception, our activities have consisted principally of acquiring product rights, raising capital, establishing facilities and performing research and development. Accordingly, we are considered to be a development stage company. We operate in a single segment.

At December 31, 2008, we had an accumulated deficit of $245.8 million and expect to continue to incur losses over the next few years. Since October 2008, we terminated our lead program AV650, downsized the company, sold the rights to our early stage AV513 program and engaged independent strategic advisors to oversee an orderly and competitive process to review merger and acquisition opportunities and to assist in the monetization of our remaining assets. Consequently, within the next year we expect to either acquire another company and begin developing a new product or products, sell the company, or distribute our cash and wind up operations. Our ability to generate revenue in the future will depend substantially on the timing and success of acquiring another company or product, reaching development and commercial milestones, obtaining regulatory approvals from the FDA or other regulatory agencies, and obtaining market acceptance of our products. There can be no assurance that we will be able to acquire another company or new products on acceptable terms in the future, if at all.

Use of Estimates

The preparation of our financial statements in conformity with U.S. generally accepted accounting principles requires our management to make judgments, assumptions and estimates that affect the amounts reported in our financial statements and the accompanying notes. Actual results could differ materially from those estimates.

Cash and Cash Equivalents

We consider all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents. These amounts are recorded at cost, which approximates fair market value.

Available- for-Sale Securities

We invest our excess cash balances in marketable securities, primarily corporate debt securities, federal agency obligations, asset-backed securities, U.S. treasuries, and municipal bonds. Our primary investment objectives are to preserve principal, maintain a high degree of liquidity, and maximize total return. All marketable securities are held in our name under the custodianship of Wells Capital Management. We have classified all our investments in marketable securities as available-for-sale. Available-for-sale securities are reported at market value and unrealized holding gains and losses, net of the related tax effect, if any, are excluded from earnings and are reported in other comprehensive income (loss) as a separate component of stockholders equity until realized. A decline in the market value of a security below its cost that is deemed to be other-than-temporary is charged to earnings, and would result in the establishment of a new cost basis for the security. Realized gains and losses, if any, are included in earnings and are reported in other income.

Our available-for-sale securities consist principally of obligations with a minimum short-term rating of A1/P1 and a minimum long-term rating of A- and with effective maturities of less than three years. The cost of securities sold is based on the specific identification method. Interest on securities classified as available for sale is included in interest income.

Restricted Investments

In June 2000, we pledged $10.0 million of our portfolio of available-for-sale securities to secure a financing arrangement to support construction related activities. We subsequently borrowed $8.0 million against this financing arrangement and utilized $2.0 million of borrowing capacity to secure a letter of credit in connection with a building lease that expires in November 2010. In May 2003, we pledged $428,000 of our portfolio of available-for-sale securities to secure two letters of credit that serve as security deposits in connection with a building lease that expired in May 2008. Effective June 2008, we extended the lease on a portion of the building and decreased the amount of the outstanding letter of credit to $36,255. This building lease has been terminated effective June 30, 2009.

At December 31, 2008, $7.0 million and $2.0 million of available-for-sale securities were classified as restricted investments in current and non-current assets, respectively. At December 31, 2007, $428,000 and $9.0 million of available-for-sale securities were classified as restricted investments in current and non-current assets, respectively. The total of our current and non-current restricted investments at the end of each period represents the combined aggregate portion of our portfolio of available-for-sale securities that were pledged in connection with certain liabilities at the end of each period. The change in total amount of restricted investments at December 31, 2008 reflects the reduction in the letter of credit, associated with one of our building leases that expired in May 2008 with only a smaller portion extended.

Concentration of Credit Risk

Cash, cash equivalents, available-for-sale securities and restricted investments consist of financial instruments that potentially subject us to concentrations of credit risk to the extent of the value of the assets recorded on our balance sheets. We believe that we have established guidelines for investment of our excess cash that maintain safety and liquidity through our policies on diversification among asset classes and issuers, as well as across investment maturities.

Impairment of Long-Lived Assets

All long-lived assets are reviewed for potential impairment whenever events or changes in business circumstances indicate that the carrying value of an asset may not be fully recoverable under Statement of Financial Account Standards No. 144, *Accounting for Impairment or Disposal of Long-Lived Assets*. Impairment is determined by comparing future projected undiscounted cash flows to be generated by the asset to its carrying value. If impairment is identified, a loss would be recognized and reflected in net loss to the extent that the carrying amount of the asset exceeds its estimated fair value determined by discounted cash flow analyses or comparable fair values of similar assets.

Property and Equipment

Property and equipment are stated at cost, less accumulated depreciation. Depreciation and amortization are provided using the straight-line method over the estimated useful lives of the respective assets, or in the case of leasehold improvements, over the lesser of the estimated useful lives or the remaining lease terms. The estimated useful lives of our property and equipment range from three to seven years.

Expenses for repairs and maintenance are charged to operations as incurred. Upon retirement, disposition, or sale, the cost of the property and equipment disposed of and the related accumulated depreciation are deducted from the accounts, and any resulting gain or loss is credited or charged to operations.

Asset Retirement Obligation

We account for obligations associated with the retirement costs of long-lived assets in accordance with Statement of Financial Accounting Standards No. 143, *Accounting for Asset Retirement Obligations*,

(FAS 143), as interpreted by FASB Interpretation No. 47, *Accounting for Conditional Asset Retirement Obligations* . FAS 143 requires that the fair value of a liability for an asset retirement obligation be recognized in the period in which it is incurred if a reasonable estimate of fair value can be made.

Under the terms of our building lease that expired in May 2008, we could have been required, at the landlord s sole discretion, to remove, reconfigure or otherwise alter certain improvements we had made to the facility. Prior to settlement, this obligation was subject to a conditional future event that was not within our control. We had previously determined the fair value of asset retirement obligation based on our assessment of a range of possible settlement dates and amounts. Considerable management judgment is required in estimating these obligations. Important assumptions include estimates of retirement costs, the timing of the future retirement activities, and the likelihood of retirement provisions being enforced. Changes in these assumptions based on future information, resulted in adjustments to our estimated liabilities over time.

In December 2006, as a result of a change in accounting estimate, we remeasured the fair value of this contingent asset retirement obligation and recorded a non-current liability for $450,000. The recognition of this liability would have resulted in an adjustment to the carrying value of the underlying long-lived assets. However, in 2005, these improvements were determined to be impaired and written-off with a charge to our net loss. Since there was no carrying value of the underlying assets at December 31, 2006, the recognition of the asset retirement obligation resulted in an additional charge in 2006 to impairment loss related to long-lived assets. As of December 31, 2007, there was no material change in our expectations with regard to this obligation. In March 2008, we entered into an amendment of the related building lease and settled the obligation for a payment of approximately $210,000. In connection with the settlement of the obligation, we recognized the difference between the cost to retire the asset and the liability previously recorded as a decrease to operating expenses in our statement of operations for 2008.

Revenue Recognition

We recognize revenue when the four basic criteria for revenue recognition as described in SEC Staff Accounting Bulletin No. 104, *Revenue Recognition*, are met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services have been rendered; (3) the fee is fixed or determinable; and (4) collectibility is reasonably assured.

Revenues from the Sale of Intellectual Property Rights

We recognize non-refundable license or assignment fees, including development milestone payments associated with license or assignment agreements, for which we have no further significant performance obligations and no continuing involvement requirements related to product development, on the earlier of the dates on when the payments are received or when collection is assured. For example, in 2008, we received a $7.1 million payment under the terms of our agreement with Baxter Healthcare Corporation (see Note 10). We recognized the payment as revenue, since we concluded that as of December 31, 2008, we did not have any significant future performance obligations under the agreement.

Revenues from Collaborative Research and Development Agreements

We recognize revenue associated with up-front license, technology access and research and development funding payments under collaborative agreements ratably over the relevant periods specified in the agreements, generally the development phase. This development phase can be defined as a specified period of time, however, in some cases, the collaborative agreement specifies a development phase that culminates with milestone objectives but does not have a fixed date and requires us to estimate the time period over which to recognize this revenue. Our estimated time periods are based on management s estimate of the time required to achieve a particular development milestone considering the projected level of effort and current stage of development. If our estimate of the development-phase time period changes, the amount of revenue we recognize related to up-front payments for a given period will accelerate or decrease accordingly.

Table of Contents

Royalty Revenues

We record royalty revenue from license agreements as earned in accordance with the contract terms when third-party results can be reliably determined and collectibility is reasonably assured.

Grant Revenues

We record grant revenue in the period in which the revenue is earned as defined by the grant agreement. Since our inception, we have recognized approximately $794,000 of grant revenue, which includes amounts earned from reimbursements under government grants, of which all have come from the National Institutes of Health.

Fair Value

On January 1, 2008, we adopted SFAS No. 157, *Fair Value Measurements*, and effective October 10, 2008, we adopted FSP FAS 157-3, *Determining Fair Value of a Financial Asset When the Market for That Asset is Not Active*, except as it applies to nonfinancial assets and nonfinancial liabilities subject to FSP FAS 157-2. Adoption of the provisions of this standard did not have a material effect on our financial position. Our cash equivalents and available-for-sale securities are carried at fair value and we make estimates regarding the valuation of these assets measured at fair value in preparing our financial statements (see Note 3, Fair Value Measures, for fair value disclosures).

Deferred Rent

We record our obligations under facility operating lease agreements as rent expense. We recognize rent expense on a straight-line basis over the term of the operating lease. The difference in actual amounts paid and amounts recorded as rent expense during the fiscal year is recorded as deferred rent. Amounts classified as deferred rent totaled $529,000 and $760,000 at December 31, 2008 and 2007, respectively.

Comprehensive Loss

Components of other comprehensive loss, including unrealized gains and losses on available-for-sale investments, were included as part of total comprehensive loss. For all periods presented, we have disclosed comprehensive loss in our statement of stockholders equity.

Research and Development Expenses

Research and development expenses consist of expenses incurred in performing research and development activities including related salaries and benefits, facilities and other overhead costs, clinical trial and related drug product costs, contract services and other outside service expenses. We charge research and development expenses to operating expense in the period incurred. These expenses consist of costs incurred for our independent, as well as our collaborative, research and development activities.

Pursuant to management s assessment of the services that have been performed on clinical trials and other contracts, we recognize expenses as the services are provided. Several of our contracts extend across multiple reporting periods. Management assessments include, but are not limited to, an evaluation by the project manager of the work that has been completed during the period, measurement of progress prepared internally, estimates of incurred costs by the third-party service providers, and management s judgment. The determination of the percentage of work completed that determines the amount of research and development expense that should be recognized in a given period requires significant judgment, and could have a material impact on our balance sheet and results of operations. These estimated expenses may or may not match the actual fees billed by the service providers as determined by actual work completed. We monitor service provider activities to the extent possible; however, if we underestimate activity levels associated with various studies at a given point in time, we could record significant research and development expenses in future reporting periods.

Table of Contents

Income Taxes

Income taxes are accounted for in accordance with Statement of Financial Accounting Standards No. 109, *Accounting for Income Taxes*, which requires the use of the liability method. Under this method, deferred tax assets and liabilities are determined based upon the differences between the financial reporting and the tax bases of assets and liabilities and are measured using enacted tax rules and laws that are anticipated to be in effect when the differences are expected to reverse. To date, we have no history of earnings. Therefore, our net deferred tax assets are reduced by a valuation allowance to the extent that realization of the related deferred tax asset is not assured. We have recorded a valuation allowance for the full amount of our calculated deferred tax asset as of December 31, 2008 and 2007.

Effective January 1, 2007, we adopted the provisions of FASB Interpretation No. 48, *Accounting for Uncertainty in Income Taxes an interpretation of FASB Statement No. 109* (FIN 48). FIN 48 provides clarification related to the process associated with accounting for uncertain tax positions recognized in financial statements. FIN 48 prescribes a more-likely-than-not threshold for financial statement recognition and measurement of a tax position taken, or expected to be taken, in a tax return. FIN 48 also provides guidance related to, among other things, classification, accounting for interest and penalties associated with tax positions, and disclosure requirements.

As of December 31, 2008, we continue to have no unrecognized tax benefits and expect no significant changes in the unrecognized tax benefits in the next 12 months (see Note 17).

Basic and Diluted Net Loss Per Common Share

Basic net loss per common share is computed by dividing net loss by the weighted-average number of common shares outstanding during the period. The computation of basic net loss per share for all periods presented is derived from the information on the face of the statement of operations, and there are no reconciling items in either the numerator or denominator.

Diluted net loss per common share is computed as though all potential common shares that are dilutive were outstanding during the year, using the treasury stock method for the purposes of calculating the weighted-average number of dilutive common shares outstanding during the period. Potential dilutive common shares consist of shares issuable upon exercise of stock options and warrants. Securities that potentially could have diluted basic earnings per common share, but were excluded from the diluted net loss per common share computation because their inclusion would have been anti-dilutive, were as follows:

	Year Ended December 31,		
	2008	**2007**	**2006**
Potential dilutive stock options outstanding	3,940	402,430	287,853
Outstanding securities excluded from the potential dilutive common shares calculation (1)	4,241,991	3,152,961	2,611,068

(1) For purposes of computing the potential dilutive common shares, we have excluded outstanding stock options and warrants to purchase common stock whose exercise prices exceed the average of the closing sale prices of our common stock as reported on the NASDAQ Global Market for the period.

Stock-Based Compensation

Effective January 1, 2006, we adopted the provisions of Statement of Financial Accounting Standards No. 123 (revised), *Share-Based Payment*, (FAS 123(R)) using the modified prospective transition method and have not restated results for prior periods. In accordance with FAS 123(R), we recognize the compensation cost for all share-based awards to employees in our financial statements based on their grant-date fair value. Share-based compensation expense is recognized over the period during which the employee is required to perform

Table of Contents

service in exchange for the award, which generally represents the scheduled vesting period. We have no awards with market or performance conditions. Estimated compensation expense for awards outstanding at January 1, 2006, but not yet vested as of that date, is being recognized over the remaining service period using the compensation cost calculated based on the same estimate of grant-date fair value previously reported for pro forma disclosure purposes under FAS 123.

Our adoption of FAS 123(R) using the modified prospective transition method requires us to determine the amount of eligible windfall tax benefits (the pool of windfall tax benefits) that are available on the adoption date to offset future shortfalls. We have elected to calculate the historical pool of windfall tax benefits (i.e., the amount that would have accumulated as of the adoption date of FAS 123(R)) using the short-cut method, as provided in FASB Staff Position No. FAS 123(R)-3, *Transition Election Related to Accounting for Tax Effects of Share-Based Payment Awards* which includes simplified methods to establish the beginning balance of the pool of windfall tax benefits related to the tax effects of employee share-based compensation, and to determine the subsequent impact on the pool of windfall tax benefits and statements of cash flows of the tax effects of employee share-based compensation awards that are outstanding upon adoption of FAS 123(R). We also have elected to follow the tax law ordering approach to determine when the historic tax benefits are realized (tax benefits realized based on provisions in the tax law that identify the sequence in which stock option deductions are utilized for tax purposes). Subsequent to the adoption of FAS 123(R), we will continue to track the balance of the pool of windfall tax benefits based on windfalls or shortfalls incurred after the adoption date.

For equity awards to non-employees, including lenders, lessors, and consultants, we also apply the Black-Scholes method to determine the fair value of such instruments in accordance with FAS 123(R) and Emerging Issues Task Force Issue No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods, or Services.* The options and warrants granted to non-employees are re-measured as they vest and the resulting value is recognized as an expense against our net loss over the period during which the services are received or the term of the related financing.

New Accounting Pronouncements

Effective January 1, 2008, we adopted the provisions of SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities Including an amendment of FAS 115* (SFAS 159), which gives a company the option to irrevocably elect to measure certain financial assets and financial liabilities at fair value on an instrument-by-instrument basis with the resulting changes in fair value recorded in earnings. The objective of SFAS 159 is to reduce both the complexity in accounting for financial instruments and the volatility in earnings caused by using different measurement attributes for financial assets and financial liabilities. We chose not to elect the fair value option for our financial assets and liabilities existing at January 1, 2008, and did not elect the fair value option on financial assets and liabilities transacted during 2008. Therefore, the adoption of SFAS 159 had no impact on our financial statements.

Effective January 1, 2008, we adopted the provisions of Emerging Issues Task Force (EITF) Issue No. 07-03, *Accounting for Nonrefundable Advance Payments for Goods or Services Received for Use in Future Research and Development Activities* (EITF 07-03). The Task Force concluded that nonrefundable advance payments for goods or services that will be used or rendered for future research and development activities should be deferred and capitalized. Such amounts should be recognized as an expense as the related goods are delivered or the services are performed, or when the goods or services are no longer expected to be provided. Our adoption of EITF 07-03 did not have a material effect on our financial statements.

In September 2007, the FASB ratified EITF Issue No. 07-01, *Accounting for Collaborative Agreements* (EITF 07-01). EITF 07-01 defines collaborative agreements as contractual arrangements that involve a joint operating activity. These arrangements involve two (or more) parties who are both active participants in the activity and that are exposed to significant risks and rewards dependent on the commercial success of the activity. EITF 07-01 provides that a company should report the effects of adoption as a change in accounting

Table of Contents

principle through retrospective application to all periods and requires additional disclosures about a company s collaborative arrangements. EITF 07-01 is effective for us as of January 1, 2009. The adoption of EITF 07-01 is not expected to have a material impact on our financial statements.

In December 2007, the FASB issued SFAS No. 141(R), *Business Combinations* (SFAS 141(R)). SFAS 141(R) changes several underlying principles in applying the purchase method of accounting. Among the significant changes, SFAS 141(R) requires a redefining of the measurement date of a business combination, expensing direct transaction costs as incurred, capitalizing in-process research and development costs as an intangible asset and recording a liability for contingent consideration at the measurement date with subsequent re-measurements recorded in the results of operations. SFAS 141(R) also requires that costs for business restructuring and exit activities related to the acquired company will be included in the post-combination financial results of operations and also provides new guidance for the recognition and measurement of contingent assets and liabilities in a business combination. In addition, SFAS 141(R) requires several new disclosures, including the reasons for the business combination, the factors that contribute to the recognition of goodwill, the amount of acquisition related third-party expenses incurred, the nature and amount of contingent consideration, and a discussion of pre-existing relationships between the parties. SFAS 141(R) is effective for us as of January 1, 2009. While the adoption of SFAS 141(R) is not expected to have a material impact on our financial statements, we expect the application of the new standard will likely have a significant impact on how we allocate the purchase price of any future acquired business, if any, including the expensing of direct transaction costs and costs to integrate the acquired business.

2. Cash, Available-for-Sale Securities and Restricted Investments

The following is a summary of cash, restricted investments, and available-for-sale securities as of December 31, 2008 (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Cash and money market funds	$ 9,304	$	$	$ 9,304
Corporate debt securities	8,541	11	(58)	8,494
Federal agency obligations	25,781	488		26,269
Asset-backed and other securities	12,856		(84)	12,772
Total	$ 56,482	$ 499	$ (142)	$ 56,839
Amounts reported as:				
Cash and cash equivalents	$ 9,304	$	$	$ 9,304
Restricted investments	9,036			9,036
Available-for-sale securities	38,142	499	(142)	38,499
Total	$ 56,482	$ 499	$ (142)	$ 56,839

The weighted average maturity of our investment portfolio at December 31, 2008 was 233 days, with $41.5 million carrying an effective maturity of less than twelve months, and $15.3 million carrying an effective maturity between one and two years.

Table of Contents

The following is a summary of cash, restricted investments, and available-for-sale securities as of December 31, 2007 (in thousands):

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Cash and money market funds	$ 359	$	$	$ 359
Corporate debt securities	24,322	32	(25)	24,329
Federal agency obligations	21,871	164		22,035
Asset-backed and other securities	31,212	183	(4)	31,391
Total	$ 77,764	$ 379	$ (29)	$ 78,114
Amounts reported as:				
Cash and cash equivalents	$ 359	$	$	$ 359
Restricted investments	9,428			9,428
Available-for-sale securities	67,977	379	(29)	68,327
Total	$ 77,764	$ 379	$ (29)	$ 78,114

The weighted average maturity of our investment portfolio at December 31, 2007 was 333 days, with $44.6 million carrying an effective maturity of less than twelve months, and $33.5 million carrying an effective maturity between one and three years.

Net realized gains were approximately $60,000 and $6,000 for the years ended December 31, 2008 and 2007, respectively, and net realized loss was $24,000 for the year ended December 31, 2006.

At December 31, 2008 and 2007, we had the following available-for-sale securities that were in a continuous unrealized loss position but were not deemed to be other-than-temporarily impaired (in thousands):

	Less Than 12 Months		12 Months or Greater	
	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value
December 31, 2008				
Corporate debt securities	$ (14)	$ 2,239	$ (44)	$ 3,482
Asset-backed and other securities	(52)	11,804	(32)	968
Total	$ (66)	$ 14,043	$ (76)	$ 4,450

	Less Than 12 Months		12 Months or Greater	
	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value
December 31, 2007				
Corporate debt securities	$ (7)	$ 6,812	$ (18)	$ 2,637
Asset-backed and other securities	(4)	1,480		
Total	$ (11)	$ 8,292	$ (18)	$ 2,637

The gross unrealized losses reported above for 2008 and 2007 were caused by general fluctuations in market interest rates from the respective purchase date of these securities through the end of those periods. No significant facts or circumstances have occurred to indicate that these unrealized losses are related to any deterioration in the creditworthiness of the issuers of the marketable securities we own. Based on our review of these securities, including our assessment of the duration and severity of the related unrealized losses, and our intent and ability to retain these securities for a period of time sufficient to allow for the anticipated recovery value, we have not recorded any other-than-temporary impairments on these investments.

Table of Contents

3. Fair Value Measures

Effective January 1, 2008, we adopted SFAS No. 157, *Fair Value Measurements* (SFAS 157). SFAS 157 applies to all fair value measurements not otherwise specified in an existing standard, clarifies how to measure fair value, and expands fair value disclosures. SFAS 157 does not significantly change our previous practice with regard to asset valuation. The SFAS 157 framework clarifies that fair value is an exit price, representing the amount that would be received to sell an asset or the amount paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability.

SFAS 157 establishes a valuation hierarchy for disclosure of the inputs to valuation used to measure fair value. This hierarchy prioritizes the inputs into levels of objectivity associated with the inputs used as follows:

Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument.

Level 3 inputs are unobservable inputs based on management s own assumptions used to measure assets and liabilities at fair value.

The following methods and assumptions were used to determine the fair value of each class of assets recorded at fair value in the balance sheets:

Cash equivalents: Cash equivalents consist of highly rated money market funds with maturities of three months or less, and are purchased daily at par value with specified yield rates. Due to the high ratings and short-term nature of these funds, the Company considers all cash equivalents as Level I inputs.

Available-for-sale securities at fair value: Fair values are based on quoted market prices, where available. These fair values are obtained primarily from third party pricing services, which generally use Level I or Level II inputs for the determination of fair value in accordance with SFAS 157. Third party pricing services normally derive the security prices through recently reported trades for identical or similar securities making adjustments through the reporting date based upon available market observable information. For securities not actively traded, the third party pricing services may use quoted market prices of comparable instruments or discounted cash flow analyses, incorporating inputs that are currently observable in the markets for similar securities. Inputs that are often used in valuation methodologies include, but are not limited to, benchmark yields, reported trades, broker/dealer quotes, issuer spreads, benchmark securities, bids, offers, and reference data. We utilize multiple third-party pricing services to obtain fair value; however, we generally obtain one price for each individual security. We also review the fair value hierarchy classifications. Changes in the observability of valuation inputs may result in a reclassification of levels for certain securities within the fair value hierarchy.

Table of Contents

A financial asset s classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement. The inputs or methodology used for valuing securities are not necessarily an indication of credit risk associated with investing in those securities. The following table provides the fair value measurements of our financial assets according to the fair value levels defined by SFAS 157 as of December 31, 2008:

		Fair Value Measurements at December 31, 2008 Using		
	Total Carrying Value as of December 31, 2008	Level 1 Quoted prices in active markets	Level 2 Significant other observable inputs	Level 3 Significant unobservable inputs
Cash and cash equivalents	$ 9,304	$ 9,304	$	$
Corporate debt securities	8,494		8,494	
Federal agency obligations	26,269		26,269	
Asset-backed and other securities	12,772		12,772	
Total	$ 56,839	$ 9,304	$ 47,535	$

Investment securities are exposed to various risks, such as interest rate, market and credit. Due to the level of risk associated with certain investment securities and the level of uncertainty related to changes in the value of investment securities, it is possible that changes in these risk factors in the near term could have an adverse material impact on our results of operations or stockholders equity.

In addition to the preceding disclosures on assets recorded at fair value in our balance sheets, FAS 107, *Disclosures About Fair Value of Financial Instruments*, also requires disclosure of fair values of certain other financial instruments for which it is practicable to estimate fair value, whether or not such fair values are recognized in the balance sheets. At December 31, 2008 and 2007, the carrying amounts reported in the balance sheets for accrued interest receivable, accounts payable and accrued expenses, short-term loan payable and certain other current liabilities approximate fair value because of the short-term nature of these items. At December 31, 2007, the carrying amount of our long-term loan payable approximates its fair value, based on current interest rates available to us for debt instruments with similar terms, degrees of risk, and remaining maturities.

4. Property and Equipment

Property and equipment consist of the following (in thousands):

	December 31,	
	2008	2007
Leasehold improvements	$ 44	$ 6,742
Laboratory equipment		1,218
Office furniture and equipment	1,341	1,403
	1,385	9,363
Less: accumulated depreciation and amortization	(1,333)	(8,100)
Property and equipment, net	$ 52	$ 1,263

Total depreciation and amortization expense for 2008, 2007 and 2006, was $0.7 million, $1.6 million and $1.3 million, respectively.

During 2008, Avigen recorded two transactions that resulted in decreases of assets representing leasehold improvements and laboratory equipment and their corresponding accumulated depreciation. At May 31, 2008, in

Table of Contents

connection with the expiration of an underlying building operating lease, Avigen decreased the balances of leasehold improvements and laboratory equipment of approximately $2.7 million and $0.5 million, respectively. These assets were fully depreciated and resulted in a corresponding decrease of accumulated depreciation of $3.2 million. At December 31, 2008, after recording an impairment loss related to long-lived assets (see Note 6), Avigen decreased the balances of leasehold improvements and laboratory equipment of approximately $4.0 million and $0.7 million, respectively, and corresponding accumulated depreciation of $4.3 million to reduce the carrying value of the impaired long-lived assets to zero.

5. Settlement of Asset Retirement Obligation

On March 11, 2008, we entered into an agreement with ARE-1201 Harbor Bay, LLC, to amend our building lease in connection with approximately 45,000 square feet of laboratory and office space at 1201 Harbor Bay Parkway, Alameda, CA. Prior to this amendment, under the terms of the building lease, which subsequently expired on May 31, 2008, we could have been required, at the landlord s sole discretion, to remove, reconfigure or otherwise alter some of the improvements it had made to the facility. We had previously determined the fair value of this asset retirement obligation was approximately $484,000 at December 31, 2007, based on an assessment of a range of possible settlement dates and amounts.

Under the terms of the amendment, we were released from our obligation to remove any alterations in exchange for, among other things, a payment to the landlord of $210,000. As a result of this settlement, we reduced our liability for the asset retirement obligation in March 2008 by $274,000 with a corresponding credit to impairment loss related to long-lived assets and reduced the level of restricted assets in response to the cancellation of the corresponding letter of credit that served as a deposit for the asset retirement obligation prior to the date of the amendment.

6. Impairment Loss related to Long-Lived Assets

In December 2008, in connection with the termination of our AV650 program, we ceased use of our leased laboratory facilities and determined we would maximize our potential cost savings by subleasing the properties. Based on market conditions for rental property in 2008, and preliminary negotiations with a potential subtenant, we did not expect to fully recover the value invested in leasehold improvements and equipment. In 2008, we recorded an impairment loss of $413,000 related to long-lived assets and reduced the related carrying value of the leasehold improvements and laboratory equipment to zero to approximate their estimated fair values.

Fair value was based on the expected incremental sublease cash flows we estimated we could receive in excess of our prorated existing operating lease obligations based on current market lease rental rates at the time for similar mixed use properties. Based on market conditions during 2008, including vacancy rates and the expected time needed to sublease the facilities, we did not expect to receive significant incremental rents related to the long-lived assets.

7. License Agreement Sanochemia Pharmazeutika AG

In January 2006, we entered into a license agreement with SDI Diagnostics International LTD, a division of Sanochemia Pharmazeutika AG, or Sanochemia. Under the terms of the agreement, we received an exclusive license to develop and market certain formulations of the compound tolperisone in North America. This compound is the active pharmaceutical ingredient in our product candidate, AV650, for the treatment of spasticity and neuromuscular spasm. Under the terms of the agreement, we paid Sanochemia $3.0 million in initial license costs and were required to make additional future payments upon the achievement of successful clinical and regulatory product development milestones and, following regulatory approval, to make royalty payments on sales. We and Sanochemia also entered into a long-term supply agreement under which Sanochemia would manufacture, and we would purchase for additional cost, the AV650 product for our clinical and commercial supply. The $3.0 million initial payment was nonrefundable, did not include any significant future

Table of Contents

performance requirements by Sanochemia, and the licensed compound did not have an alternative future use to us beyond the AV650 product. As such, we recognized the entire initial payment as in-license fee expense in 2006 and expected that any subsequent payments made under the terms of the agreement would also be recorded as in-license fee expense.

During the clinical development of the product AV650 for the North American Market, the parties identified the existence of levels of impurities in tolperisone products that are marketed in Europe, that exceed the levels permitted by the FDA for chronic drug products marketed in the United States. The parties filed for patents covering a purer form of AV650 and amended the License Agreement in July 2008 primarily to provide the following:

- We would share with Sanochemia the cost of development, up to $5 million, upon the timely achievement of development-based milestones for the development of a proprietary, purer form of AV650; and

- future payments from us to Sanochemia that are based on the achievement of sales-level milestones would be reduced by $2 million.

In September 2008, we paid Sanochemia $2.5 million which represented amounts due upon the timely achievement of a development-based milestone for the development of a proprietary, purer form of AV650, and is reflected in our Statements of Operations for 2008.

In October 2008, in connection with the termination of our AV650-related activities, we notified Sanochemia of our intent to terminate the License Agreement, as amended. We do not expect to incur any future costs associated with this agreement.

8. Severance Expense

In January 2006, an executive officer resigned from Avigen. In connection with his resignation, we agreed to pay severance benefits including base salary for a period of one year and continued health benefits for up to twelve months. In addition, we agreed to modify outstanding stock options held by the executive to allow for six months of additional vesting and an extended period to exercise all vested stock options for up to two years. As a result of this separation and the related modification of outstanding stock options held by the executive, we recognized a severance expense of approximately $288,000 and a non-cash, share-based compensation charge of approximately $108,000 in 2006.

9. Termination and Other Costs Associated with Exit Activities

In October 2008 we announced that the top-line data from our AV650 trial for the treatment of spasticity in patients with multiple sclerosis did not meet its primary endpoint. As a result, we discontinued all AV650-related activities. In November 2008, we announced a significant restructuring of the company, including a workforce reduction and the consolidation and closure of portions of our facilities, aimed at preserving cash and reassessing strategic opportunities.

In connection with this restructuring, we eliminated approximately 27 positions, or 70 percent of our workforce, and incurred approximately $1.5 million in severance and other one-time personnel-related termination benefits. Approximately $1.2 million of the costs associated with this severance are included in research and development expenses and approximately $300,000 are included in general and administrative expenses for the year ended December 31, 2008.

At December 31, 2008, approximately $580,000 was unpaid and included on our balance sheet under accrued compensation and related expenses. These accrued amounts primarily represent deferred severance payments and extended health care benefits for certain impacted employees and are expected to be paid in the first half of 2009. We do not expect to incur any additional costs associated with the workforce reduction.

Table of Contents

Effective October 31, 2008 we notified the landlord of our building lease for approximately 4,800 square feet of lab space at 1201 Harbor Bay Parkway, of our intent to exercise our termination rights and accelerate the expiration date on the remaining lease term to 240 days. Costs associated with the termination of this contract totaling $96,000 were accrued as of December 31, 2008 and will be paid over the remaining period of the lease agreement until June 30, 2009.

Based on market conditions for rental property in the area and preliminary negotiations with a potential subtenant, we determined that our expected sublease income for approximately 12,000 square feet of our laboratory facilities under lease through November 2010 would be less than our scheduled lease liability. As a result, for the period ended December 31, 2008, we recorded exit costs associated with the abandonment of these facilities of approximately $50,000.

10. Asset Purchase Agreement Baxter Healthcare Corporation

In December 2008, we entered into an asset purchase agreement with Baxter Healthcare Corporation, or Baxter, whereby we sold to Baxter the rights to our early stage blood coagulation compound, AV513.

We received a cash payment of $7.0 million from Baxter as proceeds of the sale of AV513 and transferred the technology to Baxter in December 2008. The $7.0 million was non-refundable and we did not have any significant additional performance obligations associated with the agreement as of December 31, 2008. We also agreed to provide technology transfer support for approximately three months to allow Baxter a reasonable period of time to identify all intangible items of interest and know-how. We received a cash payment of $100,000 in December and are scheduled to receive $100,000 at the completion of the agreed upon technology transfer support period in 2009. Because these technology transfer support activities are considered perfunctory, in that they are not essential to the know-how transferred but represent a convenience for Baxter, there are no specific performance criteria that, if not completed, would result in a partial refund of the sale price to Baxter, we have demonstrated a history of completing similar activities in past transactions, and these activities are not costly or lengthy to perform, we recorded the payment received as revenue in 2008 and expect to record the remaining scheduled payment as revenue upon receipt.

11. AAV Gene Therapy Assignment Agreement Genzyme Corporation.

In December 2005, we entered into an agreement with Genzyme Corporation, or Genzyme, whereby we assigned to Genzyme our rights to certain gene therapy-related intellectual property, our gene therapy clinical trial programs for Parkinson s disease and hemophilia, gene therapy-related contracts, and the use of previously manufactured clinical-grade vector materials. Under the terms of the agreement, we received a $12.0 million payment and could receive significant additional development milestones, sublicensing fees and royalty payments based on the successful development of products by Genzyme utilizing technologies previously developed by us. The $12.0 million payment was non-refundable and we did not have any significant additional performance obligations associated with the agreement as of December 31, 2005. Because we could receive significant future cash flows in connection with this agreement, we have not accounted for this transaction as discontinued operations. As such, we recognized the entire payment received as revenue in 2005 and expect that any future payments we receive under the terms of the agreement will also be recorded as revenue. We did not receive any payments from Genzyme for the periods ended December 31, 2008, 2007 and 2006.

12. Long Term Loan Payable

In June 2000, we entered into a financing arrangement with Wells Fargo Bank, National Association (the Bank) to support construction-related activities. Under this arrangement, we had the right to borrow up to $10.0 million through June 1, 2003. This revolving line of credit was amended several times to extend the expiration date. This loan commitment is currently scheduled to expire on November 30, 2009, or less than one year from the date of these financial statements. Accordingly, as of December 31, 2008, the loan was classified

as a current liability. Under the terms of the credit facility, as renewed, we may from time to time during the term of the Loan Commitment partially or wholly repay any outstanding borrowings, provided that amounts repaid may not be re-borrowed, and that the outstanding principal balance of the loan commitment shall be due and payable in full on November 30, 2009. In addition, the Bank will separately maintain our currently outstanding standby letter of credit in the amounts of $2.0 million pursuant to the terms required under our building operating lease that expires in November 2010 and is issued in favor of the property owner.

Amounts borrowed under this credit facility, as renewed, bear interest based on either a) a floating rate between 0.25 to 0.75 percentage points below the Bank s established Prime Rate, or b) at a fixed rate determined by the Bank that is the London Inter-Bank Offered Rate plus a margin adjustment that varies between 0.50% and 1.0% on the date of each drawdown which is dependent on the level of the market value of our investment portfolio held with a subsidiary of Wells Fargo on that date. This interest rate, if based on the Prime Rate, is adjusted periodically, and if based on LIBOR, is subsequently reset every three or six months. The weighted average interest rate for all outstanding drawdowns on this obligation was 2.50% and 5.81% at December 31, 2008 and 2007, respectively. We have pledged a portion of our portfolio of available-for-sale securities equal to the amount of outstanding borrowings to secure this obligation, and have identified these pledged assets as restricted investments on our balance sheets. As of December 31, 2008 and 2007, we had borrowed $7.0 million from the line of credit. Payments of interest only are due monthly through November 30, 2009, at which time a balloon payment of outstanding principal is due.

13. Stockholders Equity

Common Stock

In August and September 1998, we issued an aggregate of 1,306,505 shares of our common stock at $2.25 to $2.94 per share to selected institutional investors. The offering was completed through a private placement. As part of the transaction, we issued warrants to purchase 261,301 shares of our common stock with an exercise price of $2.18 to $3.67 per share. The exercise price was 125% of the fair market value per share of our underlying stock on the corresponding closing day and the warrants carried a five-year term. All of these warrants not exercised have expired. After deducting commissions and fees from the gross proceeds of $3.0 million, net proceeds from this transaction approximated $2.7 million.

In December 1998, we issued 1,367,280 shares of our common stock at $3.81 to $4.88 per share to selected institutional investors. The offering was completed through a private placement. As part of this transaction, we issued warrants to purchase 273,456 shares of our common stock with an exercise price ranging from $4.76 to $6.09 per share. The exercise price was 125% of the fair market value per share of our underlying stock on the corresponding closing day and the warrants carried a five-year term. All of these warrants not exercised have expired. After deducting commissions and fees from the gross proceeds of $5.6 million, net proceeds from this transaction approximated $5.2 million.

In February and April 1999, we issued an aggregate of 2,198,210 shares of our common stock at $5.50 to $6.00 per share to selected institutional investors. The offering was completed through a private placement. As part of this transaction, we issued warrants to purchase 439,642 shares of our common stock with an exercise price of $6.87 to $7.50 per share. The exercise price was 125% of the fair market value per share of the underlying stock on the corresponding closing day and the warrants carried a five-year term. All of these warrants not exercised have expired. After deducting commissions and fees from the gross proceeds of $13.2 million, net proceeds from this transaction approximated $12.2 million.

In October and November 1999, we issued an aggregate of 2,033,895 shares of our common stock at $16.19 to $25.56 per share to selected institutional investors. The offering was completed through a private placement. As part of this transaction, we issued warrants to purchase 406,779 shares of our common stock with an exercise price of $20.25 to $31.95 per share. The exercise price was 125% of the fair market value per share of our underlying stock on the corresponding closing day and the warrants carried a five-year term. All of these

warrants not exercised have expired. After deducting commissions and fees from the gross proceeds of $40.0 million, net proceeds from this transaction approximated $37.2 million.

In March 2000, we issued a warrant to purchase 40,000 shares of our common stock as partial consideration for the extension of our building lease. The fair value of this warrant at the date of issuance was approximately $1.7 million. This fair value is being amortized over the life of the lease extension, or May 2008. This warrant was issued with an exercise price equal to the fair market value per share of our underlying stock at the time of issuance, or $56.00, and carried a five-year term. In March 2005, this warrant expired unexercised.

Also, in March 2000, we issued a warrant to purchase 50,000 shares of our common stock as partial consideration for the acquisition of certain patent licenses previously used in our gene therapy-related research and development activities. The fair value of this warrant at the date of issuance was approximately $3.2 million and was fully expensed in the year ended June 30, 2000. This warrant was issued with an exercise price equal to the fair market value per share of our underlying stock at the time of issuance, or $82.00, and carried a five-year term. In March 2005, this warrant expired unexercised.

In April and May 2000, we issued an aggregate of 1,150,000 shares of our common stock at $26.00 per share through a public offering. After deducting commissions and fees from the gross proceeds of $29.9 million, net proceeds from this transaction totaled $27.6 million.

In November 2000, we issued an aggregate of 2,291,239 shares of our common stock between $37.50 and $45.06 per share through a public offering. After deducting combined commissions and fees from the gross proceeds of $90.7 million, net proceeds from this transaction totaled $86.1 million.

In February 2001, we issued 313,636 shares of common stock at $47.82 per share to Bayer AG, in connection with a collaboration agreement entered into with Bayer Corporation dated November 17, 2000. Net proceeds from this transaction totaled $15.0 million.

In March 2004, we issued a warrant to purchase 15,000 shares of our common stock as partial consideration for the acquisition of certain intellectual property rights used in our research and development activities. The fair value of this warrant was approximately $97,000 when we entered into the corresponding license agreement in October 2003. The fair value of the warrant was fully expensed and recorded in accounts payable and other accrued liabilities as of December 31, 2003. Upon issuance, the fair value of the warrant was reclassified to additional paid in capital for the year ended December 31, 2004. This warrant was issued with an exercise price equal to the fair market value per share of our underlying stock at the time of issuance, or $6.50, and carries a ten-year term. At December 31, 2008, this was the only issued warrant Avigen had that was outstanding.

In May 2006, we issued an aggregate of 3,939,760 shares of our common stock at $5.37 per share to selected institutional investors. The offering was completed through a private placement. After deducting combined commissions and fees from the gross proceeds of $21.2 million, net proceeds from this transaction totaled $19.4 million. The resales of these shares were registered pursuant to a registration statement that was declared effective on June 30, 2006.

In April and May 2007, we issued an aggregate of 4,413,191 shares of our common stock at $6.94 per share through a public offering. After deducting combined commissions and fees from the gross proceeds of $30.6 million, net proceeds from this transaction totaled $28.5 million.

Stockholders Rights Plan

On November 21, 2008, our Board of Directors adopted a preferred stock rights plan and declared a dividend of one preferred share purchase right (a Right) for each outstanding share of Common Stock, par value $0.001 per share (the Common Shares), of the Company. The dividend was payable on December 1,

Table of Contents

2008 (the Record Date) to the stockholders of record on that date. Each Right entitles the registered holder to purchase from the Company one one-hundredth of a share of Series A Junior Participating Preferred Stock, par value $0.001 per share (the Preferred Shares), and will become exercisable only if a person or group acquires beneficial ownership of 20% or more of the Company s common stock (Acquiring Person). If such Acquiring Person acquires beneficial ownership of 20% or more of the Company s common stock, all Rights holders, except the Acquiring Person, will be entitled to purchase one one-hundredth of a Preferred Share at a price of $8.00 per one one-hundredth of a Preferred Share (the Purchase Price), subject to adjustment. The rights plan has been designed to discourage acquisitions of more than 20% of the Company s common stock without negotiations with the board of directors. The rights expire on December 1, 2018. The rights will trade with the Company s common stock, unless and until they are separated upon the occurrence of certain future events. The board of directors may terminate the rights plan at any time or redeem the rights prior to the time the rights are triggered.

Shares Reserved for Future Issuance

We have reserved shares of our common stock for future issuance as follows:

	Year Ended December 31, 2008
Stock options outstanding	4,142,324
Stock options available for grant	2,167,247
Warrants to purchase common stock	15,000
Shares available for Employee Stock Purchase Plan	360,000
	6,684,571

14. Share-based Compensation

During the years ended December 31, 2008, 2007 and 2006, share-based compensation expense has been recognized for all our share-based compensation plans as follows (in thousands, except per share data):

	Year Ended December 31,		
	2008	2007	2006
Research and development	$ (597)	$ (600)	$ (437)
General and administrative	(1,577)	(1,234)	(944)
Share-based compensation expense before taxes	(2,174)	(1,834)	(1,381)
Related income tax benefits			
Net share-based compensation expense	$ (2,174)	$ (1,834)	$ (1,381)
Net share-based compensation expenses per basic and diluted common share	$ (0.09)	$ (0.07)	$ (0.06)

Since we have cumulative operating losses as of December 31, 2008 for which a valuation allowance has been established, we recorded no income tax benefits for share-based compensation arrangements during the years ended December 31, 2008, 2007 and 2006, respectively.

As of December 31, 2008, we had stock options outstanding to employees, non-employee directors, and consultants under three share-based compensation plans; however, only the 2006 Incentive Stock Option Plan (2006 Plan) was available for future grants. The 1996 Equity Incentive Plan (1996 Plan) and the 1996 Non-Employee Directors Stock Option Plan (Directors Plan) were both approved by our stockholders, had a ten-year duration and were terminated on March 29, 2006. The 2006 Plan was approved by our stockholders in May 2006 and is an amendment and restatement of the 2000 Equity Incentive Plan (2000 Plan) which was

Table of Contents

adopted by our Board of Directors in June 2000. The adoption of the 2006 Plan did not increase the number of shares available for grant under the 2000 Plan.

In general, the outstanding options under these plans were granted at a price equal to the fair market value of our stock on the date of grant with a term of 10 years. Grants under the 2006 Plan and 1996 Plan generally become exercisable on a quarterly basis over a vesting period of either three or four years. Grants under the Directors Plan become exercisable in three annual installments. As of December 31, 2008, we had an aggregate of 4,142,324 shares of our common stock reserved for issuance under these plans subject to outstanding awards and 2,167,247 shares available for future grants of share-based awards under the 2006 Plan.

The following table summarizes option activity with regard to all stock options:

	Outstanding Options	
	Number of Shares	Weighted-Average Exercise Price per Share
Outstanding at December 31, 2005	**3,487,254**	**$ 10.87**
Granted	1,605,500	5.16
Canceled	(732,982)	9.45
Exercised	(269,098)	3.76
Outstanding at December 31, 2006	**4,090,674**	**$ 9.36**
Granted	1,296,692	4.96
Canceled	(748,752)	14.26
Exercised	(163,387)	3.63
Outstanding at December 31, 2007	**4,475,227**	**$ 7.47**
Granted	465,700	2.73
Canceled	(722,197)	10.50
Exercised	(76,406)	3.41
Outstanding at December 31, 2008	**4,142,324**	**$ 6.48**

The fair value of our employee stock options granted during 2008, 2007 and 2006 were estimated under the Black-Scholes option valuation model with the weighted average assumptions shown in the table below. Expected volatilities are based on the historical volatility of our common stock. The expected term of options granted is based primarily on analyses of historical employee termination and option exercise behavior; separate groups of employees that have similar historical exercise behavior are considered separately for valuation purposes. The risk-free interest rates are based on the U.S. Treasury yield for a period consistent with the expected term of the option in effect at the time of the grant. Share-based compensation expense recognized during the period is based on the value of the portion of share-based payment awards that is ultimately expected to vest during the period. The estimated forfeiture rates are based on analyses of historical data, taking into account patterns of involuntary termination and other factors.

	Year Ended December 31,		
	2008	2007	2006
Expected volatility	0.6945	0.5421	0.6006
Risk free interest rate	2.69%	4.16%	4.60%

Expected life of options in years	4.59	4.30	3.68
Expected dividend yield	0%	0%	0%

Table of Contents

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options and warrants that have no vesting restrictions and are fully transferable. In addition, option valuation models, including Black-Scholes, require the input of highly subjective assumptions, including the expected stock price volatility. Because our stock options and warrants are not traded, they have characteristics significantly different from those of traded options and warrants, and because changes in the subjective input assumptions can materially affect the fair value estimate, in our opinion, the existing option valuation models, including Black-Scholes, do not necessarily provide a reliable single measure of the fair value of our stock options and warrants.

The following table summarizes information with regard to total stock options outstanding under all stock option plans at December 31, 2008:

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number Of Shares	Weighted-Average Remaining Contractual Life	Weighted-Average Exercise Price	Number Of Shares	Weighted-Average Exercise Price
0.61 - $2.96	437,400	7.97	$ 2.47	190,025	$ 2.86
2.97 - 3.38	546,450	5.72	3.26	448,523	3.29
3.45 - 3.99	432,073	3.86	3.63	341,046	3.63
4.06 - 4.22	15,993	0.34	4.18	6,993	4.13
4.42 - 4.42	434,058	8.93	4.42	144,688	4.42
4.85 - 5.06	23,750	6.82	4.88	23,750	4.88
5.06 - 5.06	647,584	6.35	5.06	596,330	5.06
5.20 - 5.50	662,702	6.56	5.42	452,400	5.41
5.51 - 8.53	465,577	4.94	6.64	344,192	6.75
8.88 - 47.63	476,737	1.60	21.72	476,737	21.72
0.61 - $47.63	4,142,324	5.75	$ 6.48	3,024,684	$ 7.33

Our employee stock options are granted at a price equal to the fair market value of our stock on the date of the grant. The weighted average grant-date fair value of options granted during 2008, 2007 and 2006 was $1.42, $2.40 and $2.48, respectively. The total intrinsic value of options exercised during 2008, 2007 and 2006 was approximately $91,000, $321,000 and $514,000, respectively. The total intrinsic value of options outstanding at December 31, 2008 was $12,000. All options exercisable at December 31, 2008 do not have any intrinsic value. The weighted average remaining contractual life of options exercisable at December 31, 2008 was 4.9 years.

As of December 31, 2008, there was approximately $2.1 million of total unrecognized compensation expense related to non-vested share-based compensation arrangements, which is expected to be recognized over a weighted average period of 1.7 years.

As of December 31, 2008, we had 3.9 million outstanding stock options that had vested or are expected to vest with a weighted average exercise price of $6.62, a weighted average remaining contractual term of 5.6 years and an aggregate intrinsic value of $10,000.

In May 2008, our board of directors modified the terms of certain stock options previously granted to a member of our board of directors who did not stand for re-election at our 2008 Annual Meeting of Stockholders. Our board of directors decided to modify the options in recognition of the director s twelve years of service to Avigen. Our board of directors modified stock options exercisable for 115,000 shares of common stock such that (1) unvested options exercisable for 36,700 shares of common stock became immediately vested, and (2) each option remained exercisable until the end of its original contract life. The maximum contractual term was not extended for any options. At the time of this modification, we recognized a share-based compensation charge of approximately $47,400.

Table of Contents

In January 2006, in connection with the resignation of an executive, we modified the expiration terms for options representing 386,475 shares of common stock to allow for six months of additional vesting and an extended period to exercise all vested stock options for up to two years. The maximum contractual term was not extended for any options. At the time of this modification, we recognized a share-based compensation charge of approximately $108,000.

For equity awards to non-employees, including lenders, lessors, and consultants, we also apply the Black-Scholes method to determine the fair value of such investments in accordance with Statement of Financial Accounting Standards No. 123(R) (SFAS 123(R)), *Share-Based Payment*, and Emerging Issues Task Force Issue No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods, or Services.* The options and warrants granted to non-employees are re-measured as they vest and the resulting value is recognized as an expense against our net loss over the period during which the services are received or the term of the related financing. During the years ended December 31, 2008, 2007 and 2006, respectively, we granted 40,000, 20,000, and 60,000 stock options to non-employees.

Employee Stock Purchase Plan

In September 1997, we adopted the 1997 Employee Stock Purchase Plan (Purchase Plan). A total of 360,000 shares of our common stock have been reserved for issuance under the Purchase Plan. As of December 31, 2008, there have been no employee stock purchases under the Purchase Plan.

15. Employee Profit Sharing/401(k) Plan

In January 1996, we adopted a Tax Deferred Savings Plan under Section 401(k) of the Internal Revenue Code (the Plan) for all full-time employees. Under the Plan, our eligible employees can contribute amounts to the Plan via payroll withholding, subject to certain limitations. Our matching contributions to the Plan are discretionary and can only be made in cash. Effective July 1, 2001, we began matching 25% of an employee s contributions up to $2,500 per Plan year. These matching contributions vest ratably over a five-year period based on the employee s initial hire date. Our matching contributions for all employees for the years ended December 31, 2008, 2007 and 2006 were approximately $55,000, $58,000 and $51,000, respectively.

16. Commitments and Contingencies

Leases

We lease 67,000 square feet of laboratory, manufacturing, and office facilities in Alameda, California under a non-cancelable operating lease agreement that expires in November 2010. As security for performance of our future obligations under this lease, we have pledged $2.0 million of our available-for-sale securities to secure a letter of credit that serves as our deposit. This amount is classified as restricted investments in our balance sheets.

Effective October 31, 2008 we notified the landlord of our building lease for 4,800 square feet of lab space in an adjacent building in Alameda, California of our intent to exercise our termination rights and accelerate the expiration date on the remaining lease to June 30, 2009. As of December 31, 2008, we have vacated the facility and accrued exit costs associated with the early termination of the lease. We maintain a letter of credit of approximately $36,000 as our security deposit that will be held by the landlord until approximately June 30, 2009, the amount of which is classified as restricted investments under current assets in our balance sheet as of December 31, 2008.

As of December 31, 2008, approximately 14,400 square feet of our facilities that are leased through November 2010, are subleased to corporate tenants not affiliated with Avigen. The sublease agreements run concurrent with the respective duration of our underlying lease term.

Table of Contents

At December 31, 2008, our future minimum commitments under non-cancelable facilities operating leases, net of sublease income, are a follows (in thousands):

	Minimum Lease Commitments	Sublease Income (1)	Net Lease Commitments
Year ending December 31:			
2009	$ 1,697	$ (383)	$ 1,314
2010	1,543	(360)	1,183
2011			
2012			
2013 and thereafter			
Total	$ 3,240	$ (743)	$ 2,497

(1) Excludes sublease income under a sublease agreement for approximately 16,500 square feet entered into in February 2009, commencing March 1, 2009 through November 30, 2010. Under the terms of the February 2009 sublease, we expect to receive approximately $905,000 in additional sublease income with approximately $425,000 expected to be recognized in 2009 and approximately $480,000 to be recognized in 2010.

Prior to May 31, 2008, we had leased an additional 40,000 square feet of laboratory, manufacturing and office facilities adjacent to our current leased space. For the first five months of 2008, approximately 5,000 square feet was subleased to an independent tenant. As a result of the expiration of this lease and sublease, rent expense and net sublease income decreased in 2008 from the 2007 levels.

Expenses and income associated with operating leases and subleases were as follows (in millions):

	Year Ended December 31,		
	2008	2007	2006
Rent expense	$ 1.9	$ 2.6	$ 2.6
Sublease income, net	(0.4)	(0.7)	(0.6)

Subleases

We have entered into sublease agreements for portions of our leased laboratory and office facilities. In February 2009, we entered into a sublease agreement commencing March 1, 2009 through November 30, 2010 for approximately 16,500 square feet of laboratory and office facilities that will expire November 2010. Under the terms of this sublease, we expect to receive approximately $905,000 in sublease income and recovery of operating costs over the future lease period.

Based on market conditions for rental property in the area at the time we listed portions of our leased laboratory and office facilities for sublease, we determined that our expected sublease income would be less than our scheduled lease liability. As a result, for the period ended December 31, 2008, we recorded exit costs associated with the abandonment of these facilities of approximately $50,000.

Other Commitments

In the ordinary course of business, we enter into commitments to fund collaborative research and clinical work performed by third parties. While these contracts are cancelable, we expect the research studies and clinical work to be completed as defined in the terms of the agreements, and all amounts paid when due. At December 31, 2008, the estimated costs related to these commitments totaled approximately $1.8 million, all of which is expected to be paid within the next twelve months.

Table of Contents

As permitted under Delaware law and in accordance with our bylaws, we indemnify our officers and directors for certain events or occurrences while the officer or director is or was serving at Avigen s request in such capacity. The term of the indemnification period is for the officer s or director s lifetime. The maximum amount of the potential future indemnification is unlimited. However, we have a director and officer insurance policy that limits our exposure and may enable us to recover a portion of any future amounts paid. We believe the fair value of these indemnification agreements in excess of the applicable insurance coverage, is minimal. Accordingly, we have not recorded any liabilities for these agreements as of December 31, 2008.

In the normal course of business, we provide indemnifications of varying scope under our agreements with other companies, typically our clinical research organizations, investigators, clinical sites, and suppliers. Pursuant to these agreements, we generally indemnify, hold harmless, and agree to reimburse the indemnified parties for losses suffered or incurred by the indemnified parties in connection with use or testing of our products or product candidates or with any U.S. patent or any copyright or other intellectual property infringement claims by any third party with respect to our products. The term of these indemnification agreements is generally perpetual. The potential future payments we could be required to make under these indemnification agreements is unlimited. Historically, costs related to these indemnification provisions have been immaterial. We also maintain various liability insurance policies that limit our exposure. As a result, we believe the fair value of these indemnification agreements, in excess of applicable insurance coverage, is minimal. Accordingly, we have not recorded any liabilities for these agreements as of December 31, 2008.

17. Income Taxes

Significant components of our deferred tax assets are as follows (in thousands):

	December 31,	
	2008	**2007**
Net operating loss carryforwards	$ 1,600	$ 51,800
Research and development credits	100	2,600
Capitalized research and development	100	3,900
Depreciation	3,400	3,100
Other	4,500	3,800
Gross deferred tax assets	9,700	65,200
Valuation allowance	(9,700)	(65,200)
Net deferred tax assets	$	$

No provision has been made for income taxes because we have incurred losses since our inception. Deferred income taxes reflect the net tax effects of temporary differences between the carrying value of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes.

Realization of deferred tax assets is dependent on future taxable income, if any, the timing and the amount of which are uncertain. Accordingly, our deferred tax assets have been fully offset by a valuation allowance. Our valuation allowance decreased by $55.5 million for the year ended December 31, 2008, increased by $9.1 million for the year ended December 31, 2007, and decreased by $21.6 million for the year ended December 31, 2006. The decrease in the valuation allowance in 2008 and 2006 results from the loss of net operating loss carryforwards, research and development tax credit carryforwards, and capitalized research and development due to federal and state ownership change limitations.

As of December 31, 2008, we had federal net operating loss carryforwards of $4.4 million and federal research and development tax credit carryforwards of $0.1 million, which will expire in 2028. We also had state net operating loss carryforwards of $2.5 million which will expire in 2018 and state research tax credits of $0.1 million, which carry forward indefinitely.

Table of Contents

Federal and state laws limit the use of net operating loss and tax credit carryforwards in certain situations where changes occur in the stock ownership of a company. In 2008 and 2007, we conducted an Internal Revenue Code (IRC) Section 382 study and have reported our deferred tax assets related to net operating loss and research credit carryforwards after recognizing change of control limitations in 2008 and 2006. The limitation of our federal and state carryforwards associated with previous net operating losses and research credits and the associated reduction in our deferred tax assets, was offset by a reduction in our valuation allowance. Utilization of our net operating loss and research and development credit carryforwards may still be subject to substantial annual limitations due to ownership change limitations after December 31, 2008. Such annual limitations could result in the expiration of our net operating loss and research and development credit carryforwards available as of December 31, 2008 before utilization.

We adopted the provisions of FIN 48 effective January 1, 2007 (see Note 1). Upon adoption of FIN 48, we determined that we did not have any unrecognized tax benefits and there was no effect on our financial condition or results of operations as a result of implementing FIN 48. In addition, we had no unrecognized tax benefits at December 31, 2008, nor do we expect any changes in our unrecognized tax benefits during 2009.

Our policy is to recognize interest and penalties related to income tax matters in income tax expense. We had no accrual for interest or penalties on our balance sheets at December 31, 2008, 2007 and 2006, and have not recognized interest or penalties in our statements of operations for the years ended December 31, 2008, 2007 and 2006.

We are subject to taxation in the United States and various state jurisdictions. Our tax years from 1994 through 2008 remain subject to examination by the United States and California tax authorities due to the loss carryforwards from those years.

18. Condensed Quarterly Financial Information (Unaudited)

	Year Ended December 31, 2008			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	(amounts in thousands except per share data)			
Total revenue	$	$	$	$ 7,100
Net loss	(7,411)	(7,341)	(9,403)	(944)
Net loss per share, basic and diluted	(0.25)	(0.25)	(0.32)	(0.03)

	Year Ended December 31, 2007			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
	(amounts in thousands except per share data)			
Total revenue	$	$	$	$
Net loss	(5,764)	(5,829)	(6,840)	(6,731)
Net loss per share, basic and diluted	(0.23)	(0.21)	(0.23)	(0.23)

19. Subsequent Event - Costs incurred in connection with Stockholder Actions

In response to the request by one of our stockholders to call a Special Meeting of Stockholders, we have incurred significant incremental costs associated with legal fees and other advisory expenses. We estimate the costs of responding to these stockholder actions in 2009 to exceed $600,000.

Table of Contents

AVIGEN, INC.

(a development stage company)

CONDENSED BALANCE SHEETS (in thousands, except share and per share information)

	September 30, 2009 (Unaudited)	December 31, 2008 (Note 1)
ASSETS		
Current assets:		
Cash and cash equivalents	$ 34,962	$ 9,304
Available-for-sale securities		38,499
Restricted cash and investments	2,941	7,036
Accrued interest	7	468
Prepaid expenses and other current assets	199	446
Total current assets	38,109	55,753
Restricted cash and investments	2,000	2,000
Property and equipment, net	26	52
Deposits and other assets	205	241
Total assets	$ 40,340	$ 58,046
LIABILITIES AND STOCKHOLDERS EQUITY		
Current liabilities:		
Accounts payable and other accrued liabilities	$ 510	$ 2,019
Accrued compensation and related expenses	1,547	1,102
Loan payable		7,000
Other current liabilities	39	119
Total current liabilities	2,096	10,240
Deferred rent and other liabilities	461	602
Total liabilities	2,557	10,842
Commitments and contingencies		
Stockholders equity:		
Preferred stock, $0.001 par value, 5,000,000 shares authorized, none issued and outstanding		
Common stock, $0.001 par value, 100,000,000 shares authorized, 29,836,365 and 29,769,115 shares issued and outstanding at September 30, 2009 and December 31, 2008, respectively	30	30
Additional paid-in capital	293,516	292,611
Accumulated other comprehensive income		357
Deficit accumulated during development stage	(255,763)	(245,794)
Total stockholders equity	37,783	47,204
Total liabilities and stockholders equity	$ 40,340	$ 58,046

See accompanying notes.

Table of Contents

AVIGEN, INC.

(a development stage company)

CONDENSED STATEMENTS OF OPERATIONS

(in thousands, except for share and per share information)

(unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,		Period from October 22, 1992 (inception) through September 30,
	2009	2008	2009	2008	2009
Revenue	$ 3	$	$ 103	$	$ 22,777
Operating expenses:					
Research and development	226	5,678	3,566	17,841	204,353
General and administrative	1,766	1,848	8,180	6,398	94,823
Impairment loss related to long-lived assets				(274)	6,719
In-license fees		2,500		2,500	10,534
Total operating expenses	1,992	10,026	11,746	26,465	316,429
Loss from operations	(1,989)	(10,026)	(11,643)	(26,465)	(293,652)
Interest expense		(59)	(44)	(222)	(3,995)
Interest income	316	594	1,115	2,289	39,847
Sublease income	232	97	594	270	2,294
Other income (expense), net	(7)	(9)	9	(27)	(257)
Net loss	$ (1,448)	$ (9,403)	$ (9,969)	$ (24,155)	$ (255,763)
Basic and diluted net loss per common share	$ (0.05)	$ (0.32)	$ (0.33)	$ (0.81)	
Shares used in basic and diluted net loss per common share calculation	29,831,971	29,769,115	29,807,557	29,764,487	

See accompanying notes.

Table of Contents

AVIGEN, INC.

(a development stage company)

CONDENSED STATEMENTS OF CASH FLOWS

(in thousands)

(unaudited)

	Nine Months Ended September 30,		Period from October 22, 1992 (inception) through September 30,
	2009	2008	2009
Operating Activities			
Net cash used in operating activities	$ (9,669)	$ (21,199)	$ (211,037)
Investing Activities			
Purchases of property and equipment		(106)	(29,015)
Proceeds from disposal of property and equipment	48	14	530
Settlement of asset retirement obligation		(210)	(210)
Decrease (increase) in restricted investments	4,095	391	(4,942)
Purchases of available-for-sale securities	(15,207)	(14,082)	(1,026,673)
Sales and Maturities of available-for-sale securities	53,350	42,483	1,026,675
Net cash (used in) provided by investing activities	42,286	28,490	(33,635)
Financing Activities			
Proceeds from long-term obligations			10,133
Proceeds from warrants and options exercised	41	261	16,256
Proceeds from issuance of common stock, net of issuance costs and repurchases			253,491
Repayment of loan and other financing activities	(7,000)		(246)
Net cash (used in) provided by financing activities	(6,959)	261	279,634
Net increase in cash and cash equivalents	25,658	7,552	34,962
Cash and cash equivalents, beginning of period	9,304	359	
Cash and cash equivalents, end of period	$ 34,962	$ 7,911	$ 34,962

See accompanying notes.

Table of Contents

AVIGEN, INC.

(a development stage company)

NOTES TO CONDENSED FINANCIAL STATEMENTS

1. Unaudited Interim Financial Statements

The accompanying unaudited condensed financial statements of Avigen, Inc. have been prepared in accordance with U.S. generally accepted accounting principles for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by U.S. generally accepted accounting principles for complete financial statements. In the opinion of management, all adjustments, consisting only of normal recurring adjustments and accruals, considered necessary for a fair presentation of the results for the interim periods presented have been included. Operating results reported for the three and nine months ended September 30, 2009 are not necessarily indicative of the results that may be expected for any future interim period or for the entire year ending December 31, 2009. These unaudited interim financial statements should be read in conjunction with our audited financial statements and the notes thereto included in our Annual Report on Form 10-K for the period ended December 31, 2008, filed with the Securities and Exchange Commission on March 16, 2009.

The balance sheet at December 31, 2008 has been derived from the audited financial statements at that date, but does not include all of the information and footnotes required by U.S. generally accepted accounting principles for complete financial statements.

In connection with the preparation of these condensed financial statements, management has evaluated all events or transactions that occurred after September 30, 2009 up through the time of filing on November 9, 2009, the date these condensed financial statements were issued. During this period, there were no material subsequent events that require disclosure in the unaudited condensed financial statements.

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires our management to make judgments, assumptions and estimates that affect the amounts reported in our financial statements and the accompanying notes. Actual results could differ materially from those estimates.

Recent Accounting Pronouncements

In June 2009, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards (SFAS) No. 168, *The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles, a replacement of FASB Statement No. 162*, as codified in the FASB Accounting Standard Codification (ASC) topic 105, *Generally Accepted Accounting Principles* (ASC 105). This statement establishes that the FASB Accounting Standards Codification will become the authoritative source of U.S. generally accepted accounting procedures (GAAP) and that rules and interpretive releases of the SEC will also be sources of authoritative GAAP for SEC registrants. Following this statement, the FASB will not issue new standards in the form of Statements, FASB Staff Positions or Emerging Issues Task Force Abstracts. Instead, it will issue Accounting Standards Updates. Our adoption of ASC 105 effective September 30, 2009 did not have a material effect on our condensed financial statements.

On January 1, 2009, we adopted the provisions of SFAS No. 141(R), *Business Combinations*, as codified in FASB ASC topic 805, *Business Combinations* (ASC 805). ASC 805 changes several underlying principles in applying the purchase method of accounting. Among the significant changes, ASC 805 requires a redefining of the measurement date of a business combination, expensing direct transaction costs as incurred, capitalizing in-process research and development costs as an intangible asset and recording a liability for contingent consideration at the measurement date with subsequent re-measurements recorded in the results of operations. ASC 805 also requires that costs for business restructuring and exit activities related to the acquired company

Table of Contents

will be included in the post-combination financial results of operations and also provides new guidance for the recognition and measurement of contingent assets and liabilities in a business combination. In addition, ASC 805 requires several new disclosures, including the reasons for the business combination, the factors that contribute to the recognition of goodwill, the amount of acquisition related third-party expenses incurred, the nature and amount of contingent consideration, and a discussion of pre-existing relationships between the parties. The Company will assess the impact of ASC 805 if and when a future acquisition occurs.

On January 1, 2009, we adopted the provisions of Emerging Issues Task Force (EITF) Issue No. 07-01, *Accounting for Collaborative Agreements,* as codified in FASB ASC topic 808*, Collaborative Agreements* (ASC 808). This standard defines collaborative agreements as contractual arrangements that involve a joint operating activity. These arrangements involve two (or more) parties who are both active participants in the activity and that are exposed to significant risks and rewards dependent on the commercial success of the activity. ASC 808 provides that a company should report the effects of adoption as a change in accounting principle through retrospective application to all periods and requires additional disclosures about a company s collaborative arrangements. Our adoption of ASC 808 did not have a material impact on our condensed financial statements.

In April 2009, the FASB issued FSP FAS 107-1 and APB 28-1, *Interim Disclosures about Fair Value of Financial Instruments,* as codified in FASB ASC topic 825, *Financial Instruments* (ASC 825). This standard amends SFAS No. 107, *Disclosures About Fair Value of Financial Instruments*, as codified in ASC 825, to require disclosures about fair value of financial instruments for interim reporting periods of publicly traded companies as well as in annual financial statements. ASC 825 also amends APB Opinion No. 28, *Interim Financial Reporting*, as codified in FASB ASC topic 270, *Interim Reporting* (ASC 270), to require those disclosures in summarized financial information at interim reporting periods. ASC 825 is effective for interim reporting periods ending after June 15, 2009, with early adoption permitted for periods ending after March 15, 2009. The standard does not require disclosures for earlier periods presented for comparative purposes at initial adoption. In periods after initial adoption, ASC 825 requires comparative disclosures only for periods ending after initial adoption. Our adoption of ASC 825 did not have a material impact on our condensed financial statements.

In April 2009, the FASB issued FSP FAS 115-2 and FAS 124-2, *Recognition and Presentation of Other-Than-Temporary Impairments*, as codified in FASB ASC topic 320, *Investments Debt and Equity Securities* (ASC 320). This statement amends the other-than-temporary impairment guidance for debt securities to make the guidance more operational and to improve the presentation and disclosure of other-than-temporary impairments on debt and equity securities in the financial statements. ASC 320 does not amend existing recognition and measurement guidance related to other-than-temporary impairments of equity securities. This statement modifies the requirements for recognizing other-than-temporarily impaired debt securities and revises the existing impairment model for such securities, by modifying the current *intent and ability* indicator in determining whether a debt security is other-than-temporarily impaired. ASC 320 is effective for interim and annual reporting periods ending after June 15, 2009, with early adoption permitted for periods ending after March 15, 2009. This standard does not require disclosures for earlier periods presented for comparative purposes at initial adoption. In periods after initial adoption, this standard requires comparative disclosures only for periods ending after initial adoption. Our adoption of ASC 320 did not have a material impact on our condensed financial statements.

In April 2009, the FASB issued FSP FAS 157-4, *Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly,* as codified by FASB ASC topic 820, *Fair Value Measurements and Disclosures*, (ASC 820). This standard provides additional guidance for estimating fair value in accordance with ASC 820 when the volume and level of activity for the asset or liability have significantly decreased. This standard also includes guidance on identifying circumstances that indicate a transaction is not orderly. ASC 820 provides guidance on how to determine the fair value of assets and liabilities in the current economic environment and reemphasizes that the objective of a fair value measurement remains an exit price. If we were to conclude that there has been a significant decrease in the volume and level of activity of the asset or liability in relation to normal market activities, quoted market values may not be representative of fair value and we may conclude that a change in

Table of Contents

valuation technique or the use of multiple valuation techniques may be appropriate. ASC 820 is effective for interim and annual reporting periods ending after June 15, 2009, with early adoption permitted for periods ending after March 15, 2009. The standard does not require disclosures for earlier periods presented for comparative purposes at initial adoption. In periods after initial adoption, ASC 820 requires comparative disclosures only for periods ending after initial adoption. Our adoption of ASC 820 did not have a material impact on our condensed financial statements.

In May 2009, the FASB issued SFAS No. 165, *Subsequent Events*, as codified by FASB ASC topic 855, *Subsequent Events* (ASC 855). ASC 885 establishes general standards of accounting for and disclosures of events that occur after the balance sheet date but before financial statements are issued or are available to be issued. Among other things, this standard requires the disclosure of the date through which an entity has evaluated subsequent events and the basis for that date. Our adoption of ASC 855 did not have a material effect on our condensed financial statements.

In June 2009, the FASB issued SFAS No. 167, *Amendments to FASB Interpretation No. 46(R)*, as codified by FASB ASC topic 810, *Consolidation* (ASC 810). This standard amends the consolidation guidance applicable to variable interest entities and the definition of a variable interest entity, and requires enhanced disclosures to provide more information about an enterprise s involvement in a variable interest entity. This statement also requires ongoing assessments of whether an enterprise is the primary beneficiary of a variable interest entity. ASC 810 is effective for our fiscal year beginning January 1, 2010. We are currently reviewing the effect ASC 810 may have on our condensed financial statements.

In October 2008, the FASB issued FSP SFAS 157-3, *Determining the Fair Value of a Financial Asset When the Market for That Asset Is Not Active,* as codified by FASB ASC subtopic 820-10, *Fair Value Measurements and Disclosures* (ASC 820-10). This standard clarifies the application of ASC 820 in a market that is not active and addresses application issues such as the use of internal assumptions when relevant observable data does not exist, the use of observable market information when the market is not active and the use of market quotes when assessing the relevance of observable and unobservable data. ASC 820-10 is effective for all periods presented in accordance with ASC 820. The guidance in ASC 820-10 was effective immediately and did not have a significant impact on our condensed financial position or results of operations upon adoption. See Note 4: Fair Value of Financial Instruments to the notes to our condensed financial statements in this Form 10-Q for information and related disclosures regarding our fair value measurements.

In February 2008, the FASB issued FSP SFAS 157-2, as codified by ASC subtopic 820-10, which delays the effective date of ASC 820 for non-financial assets and non-financial liabilities, except for items that are recognized or disclosed at fair value on a recurring basis (items that are remeasured at least annually). The standard deferred the effective date of ASC 820 for non-financial assets and non-financial liabilities until our fiscal year beginning on January 1, 2009. On January 1, 2009, we adopted this standard, which did not have a material impact on our condensed financial statements.

2. Share-Based Compensation

During the three and nine months ended September 30, 2009 and 2008, respectively, share-based compensation expense has been recognized for all our share-based compensation plans as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2009	2008	2009	2008
Research and development	$ (49)	$ (164)	$ (253)	$ (493)
General and administrative	(100)	(382)	(611)	(1,213)
Share-based compensation expense before taxes	(149)	(546)	(864)	(1,706)
Related income tax benefits				
Share-based compensation expense, net	$ (149)	$ (546)	$ (864)	$ (1,706)

Table of Contents

Since we have cumulative operating losses as of September 30, 2009 for which a valuation allowance has been established, we recorded no income tax benefits for share-based compensation arrangements during the three- and nine-month periods ended September 30, 2009 and 2008, respectively.

As of September 30, 2009, we had stock options outstanding to employees, non-employee directors, and consultants under three share-based compensation plans; however, only the 2006 Incentive Stock Option Plan (2006 Plan) was available for future grants. The 1996 Equity Incentive Plan (1996 Plan) and the 1996 Non-Employee Directors Stock Option Plan (Directors Plan) were both approved by our stockholders, had a ten-year duration and were terminated on March 29, 2006. The 2006 Plan was approved by our stockholders in May 2006 and is an amendment and restatement of the 2000 Equity Incentive Plan (2000 Plan) which was adopted by Avigen s Board of Directors in June 2000. The adoption of the 2006 Plan did not increase the number of shares available for grant under the 2000 Plan.

In general, the outstanding options under these plans were granted at a price equal to the fair market value of our stock on the date of grant with a term of 10 years. Grants under the 2006 Plan and 1996 Plan generally become exercisable on a quarterly basis over a vesting period of either three or four years. Grants under the Directors Plan become exercisable in three annual installments. As of September 30, 2009, we had an aggregate of 3,431,319 shares of our common stock reserved for issuance under these plans subject to outstanding awards and 2,509,701 shares available for future grants of share-based awards under the 2006 Plan.

The following table summarizes option activity with regard to all stock options:

	Outstanding Options	
	Number of Shares	**Weighted-Average Exercise Price per Share**
Outstanding at December 31, 2008	**4,142,324**	**$ 6.48**
Granted		
Canceled	(351,873)	5.41
Exercised		
Outstanding at March 31, 2009	**3,790,451**	**$ 6.58**
Granted		
Canceled	(199,232)	5.70
Exercised	(62,000)	0.61
Outstanding at June 30, 2009	**3,529,219**	**$ 6.74**
Granted		
Canceled	(92,650)	4.68
Exercised	(5,250)	0.61
Outstanding at September 30, 2009	**3,431,319**	**$ 6.80**

Table of Contents

There were no employee stock options granted during the three and nine months ended September 30, 2009. The fair value of our employee stock options granted during the three and nine months ended September 30, 2008, were estimated under the Black-Scholes option valuation model with the weighted average assumptions shown in the table below. Expected volatilities are based on the historical volatility of our common stock. The expected term of options granted is based primarily on analyses of historical employee termination and option exercise behavior; separate groups of employees that have similar historical exercise behavior are considered separately for valuation purposes. The risk-free interest rates are based on the U.S. Treasury yield for a period consistent with the expected term of the option in effect at the time of the grant. Share-based compensation expense recognized during the period is based on the value of the portion of share-based payment awards that is ultimately expected to vest during the period. The estimated forfeiture rates are based on analyses of historical data, taking into account patterns of involuntary termination and other factors.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2009	2008	2009	2008
Expected volatility	n/a	0.5605	n/a	0.5348
Risk free interest rate	n/a	3.11%	n/a	2.92%
Expected life of options in years	n/a	3.5	n/a	4.9
Expected dividend yield	n/a	0%	n/a	0%

Our employee stock options are granted at a price equal to the fair market value of our stock on the date of the grant. The weighted average grant-date fair value of options granted during the nine months ended September 30, 2008 was $1.55 per share. The total intrinsic value of options exercised during the nine months ended September 30, 2009 and 2008 was approximately $42,000 and $91,000, respectively. At September 30, 2009, the total intrinsic value of options outstanding was $14,000, with no intrinsic value from options exercisable. The weighted average remaining contractual life of options exercisable at September 30, 2009 was 3.0 years.

As of September 30, 2009, there was approximately $370,000 of total unrecognized compensation expense related to non-vested share-based compensation arrangements, which is expected to be recognized over a weighted average period of 1.1 years.

As of September 30, 2009, we had 3.3 million outstanding stock options that had vested or are expected to vest with a weighted average exercise price of $6.87, a weighted average remaining contractual term of 3.3 years and an aggregate intrinsic value of $10,000.

For equity awards to non-employees, including lenders, lessors, and consultants, we also apply the Black-Scholes method to determine the fair value of such investments in accordance with Statement of Financial Accounting Standards No. 123(R), as codified by FASB ASC topic 718, Compensation Stock Compensation (ASC 718), and Emerging Issues Task Force Issue No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods, or Services,* as codified by FASB ASC topic 505*, Equity* (ASC 505). The options and warrants granted to non-employees are re-measured as they vest and the resulting value is recognized as an expense against our net loss over the period during which the services are received or the term of the related financing.

3. Cash and Cash Equivalents, Available-For-Sale Securities, and Restricted Investments

Cash and Cash Equivalents

We consider all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents. These amounts are recorded at cost, which approximates fair market value. As of September 30, 2009, our investment portfolio was completely invested in money market funds and classified as cash equivalents.

Table of Contents

Available- for-Sale Securities

Historically, we invested our excess cash balances in marketable securities, primarily corporate debt securities, federal agency obligations, asset-backed securities, U.S. treasuries, and municipal bonds, with the primary investment objectives of preservation of principal, a high degree of liquidity, and maximum total return. We did not invest in auction rate securities. All money market funds and marketable securities are held in our name under the custodianship of Wells Capital Management. In periods in which we owned marketable securities, we classified our investments in marketable securities as available-for-sale. Available-for-sale securities are reported at market value and unrealized holding gains and losses, net of the related tax effect, if any, are excluded from earnings and are reported in other comprehensive income (loss) and as a separate component of stockholders equity until realized. A decline in the market value of a security below its cost that is deemed to be other than temporary is charged to earnings, and would result in the establishment of a new cost basis for the security. Realized gains and losses, if any, are included in earnings and are reported in other income.

Our available-for-sale securities consisted principally of obligations with a minimum short-term rating of A1/P1 and a minimum long-term rating of A- and with effective maturities of less than three years. The cost of securities sold is based on the specific identification method. Interest on securities classified as available-for-sale is included in interest income.

Restricted Cash and Investments

At September 30, 2009, $2.0 million of cash equivalents were classified as restricted cash and investments in non-current assets. At December 31, 2008, $7.0 and $2.0 million of available-for-sale securities were classified as restricted cash and investments in current assets and restricted cash and investments in non-current assets, respectively. The total of these amounts that are classified as current and non-current restricted cash and investments at the end of each period represents the combined aggregate portion of our investment portfolio that was pledged in connection with certain liabilities at the end of each period. During the first quarter of 2009, we repaid our bank borrowings of $7.0 million that were outstanding at December 31, 2008, and correspondingly reduced our reported amount of restricted cash and investments in current assets that was associated with the collateral on the debt.

At September 30, 2009, $2.9 million of cash was held in an irrevocable grantor trust, or rabbi trust, which the company maintains to hold amounts intended to fund benefit obligations under the Avigen, Inc. Management Transition Plan (Plan). These funds represent reserves for severance pay and benefits to eligible terminating employees as defined by the Plan. The cash in the rabbi trust is consolidated with that of the company and is reported at fair value and classified as restricted cash and investments in current assets. The related accrued severance obligation is reported at fair value and included in accrued compensation and related expenses. See also Note 6 Severance Expense.

The following is a summary of cash, restricted investments, and available-for-sale securities as of September 30, 2009 (in thousands):

	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Cash and money market funds	$ 39,903	$	$	$ 39,903
Total	$ 39,903	$	$	$ 39,903
Amounts reported as:				
Cash and cash equivalents	$ 34,962	$	$	$ 34,962
Restricted cash and investments	4,941			4,941
Total	$ 39,903	$	$	$ 39,903

Table of Contents

The weighted average maturity of our investment portfolio at September 30, 2009 was 1 day, with all $39.9 million carrying an effective maturity of less than twelve months.

The following is a summary of cash, restricted cash and investments, and available-for-sale securities as of December 31, 2008 (in thousands):

	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Cash and money market funds	$ 9,304	$	$	$ 9,304
Corporate debt securities	8,541	11	(58)	8,494
Federal agency obligations	25,781	488		26,269
Asset-backed and other securities	12,856		(84)	12,772
Total	$ 56,482	$ 499	$ (142)	$ 56,839
Amounts reported as:				
Cash and cash equivalents	$ 9,304	$	$	$ 9,304
Restricted cash and investments	9,036			9,036
Available-for-sale securities	38,142	499	(142)	38,499
Total	$ 56,482	$ 499	$ (142)	$ 56,839

The weighted average maturity of our investment portfolio at December 31, 2008 was 233 days, with $41.5 million carrying an effective maturity of less than twelve months, and $15.3 million carrying an effective maturity between one and two years.

Net realized gains on sales and maturities of available-for-sale securities were approximately $327,000 and $60,000 for the nine-month periods ended September 30, 2009 and 2008, respectively, and recorded in our condensed statements of operations as interest income.

At September 30, 2009, we did not own any available-for-sale securities and none of our money market securities were in an unrealized loss position. At December 31, 2008, we had the following available-for-sale securities that were in an unrealized loss position but were not deemed to be other-than-temporarily impaired (in thousands):

	Less Than 12 Months		12 Months or Greater	
December 31, 2008	Gross Unrealized Losses	Estimated Fair Value	Gross Unrealized Losses	Estimated Fair Value
Corporate debt securities	$ (14)	$ 2,239	$ (44)	$ 3,482
Asset-backed and other securities	(52)	11,804	(32)	968
Total	$ (66)	$ 14,043	$ (76)	$ 4,450

The gross unrealized losses reported above for December 31, 2008 were caused by general fluctuations in market interest rates from the respective purchase date of these securities through December 31, 2008. No significant facts or circumstances have occurred to indicate that these unrealized losses are related to any deterioration in the creditworthiness of the issuers of the marketable securities we own. Based on our review of these securities, including our assessment of the duration and severity of the related unrealized losses, we have not recorded any other-than-temporary impairments on these investments.

4. Fair Value of Financial Instruments

Effective January 1, 2008, we adopted SFAS 157, *Fair Value Measurements*, and effective October 10, 2008, we adopted FSP FAS 157-3, *Determining Fair Value of a Financial Asset When the Market for That Asset is Not Active*, as codified by FASB ASC topic 820, *Fair Value*

Measurements and Disclosure, (ASC 820), except

Table of Contents

as it applies to nonfinancial assets and nonfinancial liabilities subject to FSP FAS 157-2 as codified by ASC 820. On January 1, 2009, we adopted ASC 820 for nonfinancial assets and nonfinancial liabilities. ASC 820 applies to all fair value measurements not otherwise specified in an existing standard, clarifies how to measure fair value, and expands fair value disclosures. This standard does not significantly change our previous practice with regard to asset valuation. The ASC 820 framework clarifies that fair value is an exit price, representing the amount that would be received to sell an asset or the amount paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability.

ASC 820 establishes a valuation hierarchy for disclosure of the inputs to valuation used to measure fair value. This hierarchy prioritizes the inputs into levels of objectivity associated with the inputs used as follows:

Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 inputs are quoted prices for similar assets and liabilities in active markets or inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the financial instrument.

Level 3 inputs are unobservable inputs based on management s own assumptions used to measure assets and liabilities at fair value.

The following methods and assumptions were used to determine the fair value of each class of assets recorded at fair value in the balance sheets:

Cash equivalents: Cash equivalents consist of highly rated money market funds with maturities of three months or less, and are purchased daily at par value with specified yield rates. Due to the high ratings and short-term nature of these funds, the Company considers all cash equivalents as Level 1 inputs.

Available-for-sale securities at fair value: Fair values are based on quoted market prices, where available. These fair values are obtained primarily from third party pricing services, which generally use Level 1 or Level 2 inputs for the determination of fair value in accordance with ASC 820. Third party pricing services normally derive the security prices through recently reported trades for identical or similar securities making adjustments through the reporting date based upon available market observable information. For securities not actively traded, the third party pricing services may use quoted market prices of comparable instruments or discounted cash flow analyses, incorporating inputs that are currently observable in the markets for similar securities. Inputs that are often used in valuation methodologies include, but are not limited to, benchmark yields, reported trades, broker/dealer quotes, issuer spreads, benchmark securities, bids, offers, and reference data. We utilize multiple third-party pricing services to obtain fair value; however, we generally obtain one price for each individual security. We perform a review of the prices received from third parties to determine whether the prices are reasonable estimates of fair value. We also review the fair value hierarchy classifications. Changes in the observability of valuation inputs may result in a reclassification of levels for certain securities within the fair value hierarchy.

A financial asset s classification within the hierarchy is determined based on the lowest level input that is significant to the fair value measurement. The inputs or methodology used for valuing securities are not necessarily an indication of credit risk associated with investing in those securities. The following table provides the fair value measurements of our financial assets according to the fair value levels defined by ASC 820 as of September 30, 2009 (in thousands):

		Fair Value Measurements Using		
	Fair Value as of September 30, 2009	**Level 1 Quoted prices in active markets**	**Level 2 Significant other observable inputs**	**Level 3 Significant unobservable inputs**
Cash and money market funds	$ 39,903	$ 39,903	$	$

FI-85

Table of Contents

Investment securities are exposed to various risks, such as interest rate, market and credit. Due to the level of risk associated with certain investment securities and the level of uncertainty related to changes in the value of investment securities, it is possible that changes in these risk factors in the near term could have an adverse material impact on our results of operations or stockholders equity.

Certain assets and liabilities are measured at fair value on a nonrecurring basis; that is, the instruments are not measured at fair value on an ongoing basis but are subject to fair value adjustments only in certain circumstances (for example, when there is evidence of impairment). There were no assets or liabilities measured at fair value on a nonrecurring basis during the nine months ended September 30, 2009.

SFAS No. 115, *Accounting for Certain Investments in Debt and Equity Securities* and FSP SFAS 115-2 and SFAS 124-4, *Recognition and Presentation of Other-than-Temporary Impairments*, as codified in ASC topic 320, *Investments Debt and Equity Securities* (ASC 320), and SAB Topic 5M, *Accounting for Non-current Marketable Equity Securities*, as codified by ASC 320 provide guidance on determining when an investment is other-than-temporarily impaired. Our investments are reviewed quarterly for indicators of other-than-temporary impairment. ASC 320 is effective for all periods ending after June 15, 2009 and provides additional guidance designed to create a greater clarity and consistency in accounting for and presenting impairment losses on securities. As of September 30, 2009, we did not have any available-for-sale securities in an unrealized loss position.

5. Settlement of Asset Retirement Obligation

On March 11, 2008, we entered into an agreement with ARE-1201 Harbor Bay, LLC, to amend our building lease in connection with approximately 45,000 square feet of laboratory and office space at 1201 Harbor Bay Parkway, Alameda, CA. Prior to this amendment, under the terms of the building lease, which subsequently expired on May 31, 2008, we could have been required, at the landlord s sole discretion, to remove, reconfigure or otherwise alter some of the improvements we had made to the facility. We had previously determined the fair value of this asset retirement obligation was approximately $484,000 at December 31, 2007, based on an assessment of a range of possible settlement dates and amounts.

Under the terms of the amendment, we were released from our obligation to remove any alterations in exchange for, among other things, a payment to the landlord of $210,000. As a result of this settlement, we reduced our liability for the asset retirement obligation in March 2008 by $274,000 with a corresponding credit to impairment loss related to long-lived assets and reduced the level of restricted assets in response to the cancellation of the corresponding letter of credit that served as a deposit for the asset retirement obligation prior to the date of the amendment.

6. Severance Expense

In March 2009, we announced that our Board of Directors had discontinued strategic merger discussions to develop a plan for liquidation. As a result, our Board of Directors determined that the company no longer needed to retain the services of a majority of its employees that were supporting strategic discussions and we reduced our headcount accordingly, including three officers of the company.

In connection with this action, we incurred obligations to pay severance benefits to qualified employees under the Avigen, Inc. Management Transition Plan (Plan), including salary continuation payments and health benefits continuation as defined in the Plan. For the three months ended March 31, 2009, we recognized a severance expense of approximately $2.1 million. In addition, under the terms of the Plan, outstanding unvested stock options held by terminated employees were subject to accelerated vesting conditions and an increase in the post termination exercise period and we recognized a non-cash, share-based compensation charge of approximately $0.2 million for the three months ended March 31, 2009.

Table of Contents

No expenses related to this plan were recorded for the six months ended September 30, 2009. However, Avigen s four remaining employees are qualified to receive severance benefits under the Plan. Regardless of whether the proposed merger with MediciNova is consummated, upon termination, Avigen would anticipate incurring additional severance expense of approximately $872,000.

7. Sublease Income

We lease approximately 67,000 square feet of laboratory, manufacturing, and office facilities in Alameda, California under a non-cancellable operating lease agreement that expires November 30, 2010 and have entered into sublease agreements for portions of these facilities. In February 2009, we entered into a sublease agreement commencing March 1, 2009 through November 30, 2010 for approximately 16,500 square feet of laboratory and office facilities that will expire November 2010. This sublease agreement was amended to cover approximately 19,155 square feet effective September 1, 2009.

As of September 30, 2009, the cumulative total of our leased facilities that are subleased to corporate tenants not affiliated with Avigen is approximately 33,555 square feet. The sublease agreements run concurrent with the respective duration of our underlying lease term.

At September 30, 2009, our future minimum commitments under non-cancelable facilities operating leases, net of sublease income, are a follows (in thousands):

	Minimum Lease Commitments	Sublease Income	Net Lease Commitments
Year ending December 31:			
2009	$ 410	$ (239)	$ 171
2010	1,543	(898)	645
2011			
2012			
2013 and thereafter			
Total	$ 1,953	$ (1,137)	$ 816

8. Long Term Loan Payable

In June 2000, we entered into a financing arrangement with Wells Fargo Bank, National Association (the Bank) to support construction-related activities. Under this arrangement, we had the right to borrow up to $10.0 million through June 1, 2003. This revolving line of credit was amended several times to extend the expiration date and is currently scheduled to expire on November 30, 2009. Under the terms of the credit facility, as renewed, we could from time to time during the term of the Loan Commitment partially or wholly repay any outstanding borrowings, provided that amounts repaid could not be re-borrowed, and that the outstanding principal balance of the loan commitment would be due and payable in full on November 30, 2009. At December 31, 2008, we had outstanding borrowings of $7.0 million that was classified as a current liability. As of September 30, 2009, we had repaid our total outstanding borrowings and are no longer able to borrow against the loan commitment.

In addition, the Bank separately maintains our currently outstanding standby letter of credit in the amount of $2.0 million pursuant to the terms required under our building operating lease that expires in November 2010 and is issued in favor of the property owner.

Table of Contents

9. Comprehensive Loss

Components of other comprehensive loss, including unrealized gains and losses on available-for-sale securities, were included as part of total comprehensive loss (in thousands).

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2009	2008	2009	2008
Net loss	$ (1,448)	$ (9,403)	$ (9,969)	$ (24,155)
Net unrealized loss on available-for-sale securities	(275)	(508)	(357)	(463)
Comprehensive loss	$ (1,723)	$ (9,911)	$ (10,326)	$ (24,618)

10. Basic and Diluted Net Loss Per Common Share

Basic net loss per common share is computed by dividing net loss by the weighted-average number of common shares outstanding during the period. The computation of basic net loss per share for all periods presented is derived from the information on the face of the statement of operations, and there are no reconciling items in either the numerator or denominator.

Diluted net loss per common share is computed as though all potential common shares that are dilutive were outstanding during the year, using the treasury stock method for the purposes of calculating the weighted-average number of dilutive common shares outstanding during the period. Potential dilutive common shares consist of shares issuable upon exercise of stock options and warrants. Securities that potentially could have diluted basic earnings per common share, but were excluded from the diluted net loss per common share computation because their inclusion would have been anti-dilutive, were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2009	2008	2009	2008
Potential dilutive stock options outstanding	6,154	52,243	11,437	14,638
Outstanding securities excluded from the potential dilutive common shares calculation (1)	3,474,941	3,533,492	3,655,733	4,003,155

(1) For purposes of computing the potential dilutive common shares, we have excluded outstanding stock options and warrants to purchase common stock the exercise prices of which exceed the average of the closing sale prices of our common stock as reported on the NASDAQ Global Market for the period.

11. Stockholders Equity

During the nine-month period ended September 30, 2009, we received approximately $41,000 in cash proceeds related to the exercise of stock options for 67,250 shares of common stock.

As of September 30, 2009, we had one warrant outstanding for 15,000 shares of our common stock with an exercise price equal to $6.50. The warrant was issued in March 2004 as partial consideration for the acquisition of some intellectual property rights used in our research and development activities and has a ten-year term.

12. Legal Proceedings

On August 24, 2009, The Pennsylvania Avenue Funds, an Avigen stockholder, filed a complaint in Alameda County Superior Court alleging that Avigen s directors breached their fiduciary duties in connection with the proposed transaction with MediciNova. The Pennsylvania Avenue Funds seeks to represent a stockholder class and to enjoin the consummation of the Merger. Plaintiff seeks a judgment determining that the

action is a proper class action and that plaintiff is a proper class representative, and awarding plaintiff and the purported class damages, attorney s fees, costs and interest.

Table of Contents

13. Merger

On August 20, 2009, Avigen entered into an Agreement and Plan of Merger with MediciNova, Inc. (*MediciNova*) and Absolute Merger, Inc., a wholly-owned subsidiary of MediciNova (*Merger Sub*), pursuant to which, upon the terms and subject to the conditions set forth therein, Merger Sub will merge with and into Avigen (the *Merger*), with Avigen continuing as the surviving corporation and as a wholly-owned subsidiary of MediciNova.

Under the terms of the Merger Agreement, each outstanding share of Avigen common stock (and the associated preferred share purchase right), par value $0.001 per share, will be converted into an amount currently estimated at approximately $1.24 per share in either cash or secured convertible notes issued by MediciNova, at the election of each individual Avigen stockholder. Stockholders that do not make a valid election will receive 50% of the consideration in cash and 50% of the consideration in secured convertible notes issued by MediciNova. Approximately $1.19 of such consideration will be paid at the effective time of the Merger, and approximately $0.05 will be paid on June 30, 2010 pursuant to the terms of an escrow agreement to be entered into at the effective time of the Merger. Both payments are subject to certain adjustments as specified in the Merger Agreement. The secured convertible notes will be convertible on the final business day of each month into shares of MediciNova common stock at an initial conversion price of $6.80 per share (based on the volume-weighted average price of MediciNova s common stock as quoted on The Nasdaq Stock Market and the Osaka Securities Exchange over the 20-day trading period ending on the business day prior to August 20, 2009). In addition, Avigen s stockholders will be entitled to one Contingent Payment Right (as defined in the Merger Agreement) for each share of Avigen common stock held immediately prior to the effective time of the Merger, which provide for additional potential cash payments based on achievement of a certain milestone under Avigen s assignment agreement with Genzyme Corporation or other specified events. Outstanding options to purchase Avigen common stock will be cancelled at the effective time of the Merger.

The Merger Agreement contains customary representations and warranties and pre-closing covenants, and the completion of the Merger is subject to customary closing conditions, including adoption of the Merger Agreement by Avigen s stockholders, adoption of the Merger Agreement and approval of the issuance of the convertible notes by MediciNova s stockholders, execution of certain ancillary agreements and the absence of a material adverse effect on Avigen. In the event that Avigen s board of directors changes its recommendation regarding the Merger following receipt of a superior offer, as defined in the Merger Agreement, and the Merger is not consummated, Avigen will be required to reimburse MediciNova for 50% of its reasonable out-of-pocket expenses, up to a maximum $500,000, upon a termination of the Merger Agreement prior to the effective time of the Merger. The parties intend to complete the Merger as soon as practicable and currently anticipate that the closing will occur in the fourth quarter of 2009.

Table of Contents

ANNEX A

EXECUTION VERSION

AGREEMENT AND PLAN OF MERGER

BY AND AMONG

MEDICINOVA, INC.,

ABSOLUTE MERGER, INC.

AND

AVIGEN, INC.

Dated as of August 20, 2009

Table of Contents

TABLE OF CONTENTS

		Page
ARTICLE I	THE MERGER	A-1
1.1.	The Merger	A-1
1.2.	Closing	A-1
1.3.	Effect of the Merger	A-2
1.4.	Organizational Documents	A-2
1.5.	Directors and Officers	A-2
1.6.	Effect of the Merger on the Capital Stock of the Company	A-2
1.7.	No Fractional Notes	A-3
1.8.	Capital Stock of Merger Sub	A-3
1.9.	Surrender of Certificates	A-3
1.10.	No Further Ownership Rights in Company Shares	A-6
1.11.	Lost, Stolen or Destroyed Certificates	A-6
1.12.	Further Action	A-6
1.13.	Dissenters Rights	A-6
1.14.	Stock Splits, Etc	A-7
1.15.	Escrow Arrangements	A-7
1.16.	Avigen Representative	A-9
ARTICLE II	REPRESENTATIONS AND WARRANTIES OF THE COMPANY	A-10
2.1.	Organization; Standing and Power; Charter Documents	A-11
2.2.	Capital Structure	A-11
2.3.	Authority; Non-Contravention; Necessary Consents	A-13
2.4.	SEC Filings; Financial Statements; Internal Controls	A-14
2.5.	Absence of Certain Changes or Events	A-15
2.6.	Tax Matters.	A-16
2.7.	Intellectual Property.	A-17
2.8.	Compliance; Permits.	A-18
2.9.	Litigation	A-20
2.10.	Brokers and Finders Fees	A-20
2.11.	Transactions with Affiliates	A-20
2.12.	Employee Benefit Plans	A-20
2.13.	Title to Properties; Use and Access	A-22
2.14.	Environmental Matters	A-23
2.15.	Contracts	A-23
2.16.	Disclosure	A-23
2.17.	Board Approval	A-24
2.18.	Fairness Opinion	A-24
2.19.	Takeover Statutes; Company Rights Agreement	A-24

Table of Contents

TABLE OF CONTENTS

(continued)

		Page
2.20.	Marketable Securities	A-24
2.21.	No Other Parent Representations	A-24
ARTICLE III	REPRESENTATIONS AND WARRANTIES OF PARENT PARTIES	A-24
3.1.	Organization; Standing and Power; Charter Documents	A-25
3.2.	Capital Structure	A-25
3.3.	Authority; Non-Contravention; Necessary Consents	A-26
3.4.	SEC Filings; Financial Statements	A-27
3.5.	Absence of Certain Changes or Events	A-28
3.6.	Compliance	A-28
3.7.	Litigation	A-28
3.8.	Brokers and Finders Fees	A-28
3.9.	Disclosure	A-28
3.10.	Board Approval	A-29
3.11.	Fairness Opinion	A-29
3.12.	Parent Contracts	A-29
3.13.	No Other Company Representations	A-29
ARTICLE IV	CONDUCT BY THE PARTIES PRIOR TO THE MERGER EFFECTIVE TIME	A-30
4.1.	Conduct of Business by the Company	A-30
4.2.	Conduct of Business by Parent	A-33
ARTICLE V	ADDITIONAL AGREEMENTS	A-33
5.1.	Proxy Statement/Prospectus; Registration Statement	A-33
5.2.	Meetings of Company Stockholders and Parent Stockholders; Board Recommendations	A-34
5.3.	Acquisition Proposals	A-35
5.4.	Confidentiality; Access to Information; No Modification of Representations, Warranties or Covenants	A-37
5.5.	Public Disclosure	A-38
5.6.	Commercially Reasonable Efforts	A-38
5.7.	Notification of Certain Matters	A-38
5.8.	Third Party Consents	A-39
5.9.	Employee Benefit Matters; Continuation of Employment of Company Employees.	A-39
5.10.	Nasdaq Listing	A-40
5.11.	Indemnification and Insurance	A-40
5.12.	Section 16 Matters	A-41
5.13.	Company Rights Agreement; State Takeover Laws	A-41
5.14.	Resignations	A-41
5.15.	Labor Matters	A-41

Table of Contents

TABLE OF CONTENTS

(continued)

		Page
5.16.	Releases	A-41
5.17.	Management Transition Plan	A-42
ARTICLE VI	CONDITIONS TO CLOSING	A-42
6.1.	Conditions to the Obligations of Each Party to Effect the Merger	A-42
6.2.	Additional Conditions to the Obligations of the Company	A-42
6.3.	Additional Conditions to the Obligations of Parent and Merger Sub	A-43
ARTICLE VII	TERMINATION, AMENDMENT AND WAIVER	A-44
7.1.	Termination	A-44
7.2.	Notice of Termination; Effect of Termination	A-45
7.3.	Fees and Expenses	A-45
7.4.	Amendment; Waivers	A-45
ARTICLE VIII	GENERAL PROVISIONS	A-45
8.1.	Interpretation; Certain Definitions	A-45
8.2.	Non-Survival of Representations and Warranties	A-51
8.3.	Notices	A-52
8.4.	Counterparts	A-52
8.5.	Entire Agreement; Third-Party Beneficiaries	A-53
8.6.	Severability	A-53
8.7.	Other Remedies; Specific Performance	A-53
8.8.	Governing Law	A-53
8.9.	Jurisdiction	A-53
8.10.	Rules of Construction	A-54
8.11.	Assignment	A-54
8.12.	Waiver of Jury Trial	A-54

Table of Contents

TABLE OF CERTAIN DEFINED TERMS

$	A-46
Shares Acquisition Date	A-24
401(k) Plan	A-39
Acquiring Person	A-24, A-41
Acquisition Proposal	A-46
Action	A-40
Additional Assets	A-46, A-47
Additional Liabilities	A-47
Agreement	A-1
Appraisal Rights	A-6
Avigen Representative	A-47
Avigen Representative Objection	A-7
Burdensome Condition	A-38
Business Day	A-47
Cash Consideration	A-2
Cash Election	A-2
Certificate of Merger	A-1
Certificates	A-5
Change of Recommendation	A-37
Closing	A-1
Closing Date	A-1
COBRA	A-47
Code	A-5
Company	A-1
Company Balance Sheet	A-47
Company Board Recommendation	A-35
Company Charter Documents	A-11
Company Common Stock	A-47
Company Disclosure Letter	A-10
Company Employee Plan	A-20
Company Financials	A-14
Company Material Adverse Effect	A-47
Company Options	A-3
Company Permits	A-19
Company Preferred Stock	A-11
Company Product Candidates	A-19
Company Regulatory Permits	A-19
Company Right	A-2
Company Rights Agreement	A-2
Company Scheduled Contract	A-48
Company SEC Reports	A-14
Company Share	A-2
Company Stock Plans	A-3
Company Stockholders Meeting	A-24
Company Warrants	A-3
Confidentiality Agreement	A-37
Contingent Payment Right	A-49
Contract	A-49
Controlled Group Affiliate	A-21

Convertible Note	A-49
Convertible Notes Consideration	A-2
Convertible Notes Election	A-2
Current Policy	A-40
Dechert	A-1
Demand Amount	A-7
Demand Certificate	A-7
DGCL	A-1
Dissenting Shares	A-6
Distribution Date	A-24
dollars	A-46
Drug Regulatory Agency	A-19
Effect	A-47
Election	A-3
Election Deadline	A-4
Employee	A-20
Employee Agreement	A-20
End Date	A-44
Environmental Laws	A-23
ERISA	A-49
Escrow Account	A-49
Exchange Act	A-14
Exchange Agent	A-4
Exchange Agent Agreement	A-4
Exchange Fund	A-4
FDA	A-19
FDCA	A-19
First Payment Consideration	A-49
Form of Election	A-4
GAAP	A-14
Genzyme Agreement	A-30
Genzyme Settlement Amount	A-49
GLP	A-19
Governmental Entity	A-14
herein	A-46
hereof	A-46
hereto	A-46
hereunder	A-46
Holder	A-3
include	A-46
includes	A-46
including	A-46
Indemnified Party	A-40
Indenture	A-49
Independent Accountants	A-8
Intellectual Property	A-17
Intellectual Property Contracts	A-17
Knowledge	A-49
Ladenburg	A-28

Table of Contents

TABLE OF CERTAIN DEFINED TERMS

(continued)

Ladenburg Agreement	A-28
Leased Real Property	A-22
Leases	A-22
Legal Requirements	A-49
Letter of Transmittal	A-5
Licensed Intellectual Property	A-17
Liens	A-49
Made Available	A-49
material contracts	A-48
Maximum Amount	A-40
Merger	A-1
Merger Consideration	A-3
Merger Effective Time	A-50
Merger Sub	A-1
Merger Sub Charter Documents	A-25
Merger Sub Common Stock	A-3
Nasdaq	A-15
Non-Election Shares	A-2
Parent	A-1
Parent Balance Sheet	A-50
Parent Board Recommendation	A-35
Parent Charter Documents	A-25
Parent Common Stock	A-50
Parent Disclosure Letter	A-25
Parent Financials	A-28
Parent Material Adverse Effect	A-50
Parent Options	A-25
Parent Parties	A-1
Parent Preferred Stock	A-25
Parent Right	A-26
Parent SEC Reports	A-27
Parent Stock Plans	A-25
Parent Stockholders Meeting	A-29
Parent Warrants	A-25
parties	A- 46
party	A-46
Permits	A-19
Permitted Liens	A-50
Person	A-50
Proxy Statement/Prospectus	A-23
RBC	A-20
RBC Agreement	A-20
Registered	A-50
Registration Statement	A-23
Required Company Stockholders	A-13
Required Parent Stockholders	A-26
Sarbanes-Oxley Act	A-15
Scheduled Intellectual Property	A-17
SEC	A-14
Second Payment Consideration	A-50
Securities Act	A-14
Selected Amount	A-8

Subsidiary	A-51
Superior Offer	A-51
Surviving Corporation	A-1
Surviving Corporation Common Stock	A-3
Targeted First Payment Cash Amount	A-49
Tax	A-51
Tax Return	A-51
Tax Sharing Agreement	A-51
Taxes	A-51
Taxing Authority	A-51
Third Party	A-51
Trade Secrets	A-17
Transaction	A-24
Trust Agreement	A-51
Voting Debt	A-13
without limitation	A-46

Table of Contents

INDEX OF EXHIBITS

Exhibit A	Exchange Agent Agreement
Exhibit B	Escrow Agreement
Exhibit C	Company Disclosure Letter
Exhibit D	Parent Disclosure Letter
Exhibit E	Confidentiality Agreement
Exhibit F	Releases
Exhibit G	Amendment to Management Transition Plan
Exhibit H	Contingent Payment Right
Exhibit I	Indenture governing the Convertible Notes
Exhibit J	Trust Agreement

Table of Contents

AGREEMENT AND PLAN OF MERGER

This AGREEMENT AND PLAN OF MERGER (this *Agreement*) is made and entered into as of August 20, 2009, by and among MediciNova, Inc., a Delaware corporation (*Parent*), Absolute Merger, Inc., a Delaware corporation and direct wholly-owned subsidiary of Parent (*Merger Sub* and together with Parent, the *Parent Parties*) and Avigen, Inc., a Delaware corporation (the *Company*).

RECITALS

WHEREAS, the respective Boards of Directors of Parent, Merger Sub and the Company have each deemed it advisable and in the best interests of their respective companies and stockholders that Parent, Merger Sub and the Company consummate the business combination and other transactions provided for herein;

WHEREAS, the respective Boards of Directors of Parent, Merger Sub and the Company have each approved, in accordance with the applicable provisions of the General Corporation Law of the State of Delaware (the *DGCL*) this Agreement and the transactions contemplated hereby, including the Merger (as defined herein);

WHEREAS, the respective Boards of Directors of Parent and the Company have each resolved to recommend to the respective stockholders of Parent and the Company the approval of the Merger;

WHEREAS, Parent, Merger Sub and the Company desire to make certain representations, warranties and agreements in connection with the Merger and also to prescribe certain conditions to the Merger;

NOW, THEREFORE, in consideration of the covenants, promises and representations set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

ARTICLE I

THE MERGER

1.1. *The Merger*. Upon the terms and subject to the conditions hereof, at the Merger Effective Time (as defined below), Merger Sub shall be merged with and into the Company (the *Merger*) and the separate corporate existence of Merger Sub shall thereupon cease, and the Company shall continue as the surviving corporation (the *Surviving Corporation*) of the Merger in accordance with the DGCL. The Merger shall become effective upon the filing of the certificate of merger with respect to the Merger (the *Certificate of Merger*) with the Secretary of State of the State of Delaware in accordance with the provisions of the DGCL, or at such other time as Merger Sub and the Company shall agree should be specified in the Certificate of Merger, which filing shall be made as soon as practicable on the Closing Date (as defined below). The Merger shall, at the Merger Effective Time, be effected pursuant to the terms provided herein, in the Certificate of Merger and in the applicable provisions of the DGCL.

1.2. *Closing*. The closing of the transactions contemplated by this Agreement (the *Closing*) shall take place at the offices of Dechert LLP, located at 1775 I Street, N.W., Washington, D.C., at a time and date to be specified by the parties, which shall be no later than the second Business Day after the satisfaction or written waiver of the conditions set forth in *Article VI* (other than those that by their terms are to be satisfied or waived at the Closing, it being understood that the occurrence of the Closing shall remain subject to the satisfaction or waiver of such conditions at the Closing), or at such other time, date and location as the parties hereto agree in writing. The date on which the Closing occurs is referred to herein as the *Closing Date*.

Table of Contents

1.3. *Effect of the Merger*. At the Merger Effective Time, the effect of the Merger shall be as provided in this Agreement and the applicable provisions of the DGCL, including Section 259 of the DGCL. Without limiting the generality of the foregoing, and subject thereto, at the Merger Effective Time, all the property, rights, privileges, powers and franchises of the Company and Merger Sub shall vest in the Surviving Corporation, and all debts, liabilities and duties of the Company and Merger Sub shall become the debts, liabilities and duties of the Surviving Corporation.

1.4. *Organizational Documents*.

(a) At the Merger Effective Time, the certificate of incorporation of the Company as the Surviving Corporation shall be amended and restated to read the same as the Certificate of Incorporation of Merger Sub as in effect immediately prior to the Merger Effective Time, except that Article I of the Certificate of Incorporation of the Surviving Corporation shall read as follows: The name of this corporation is Avigen, Inc.

(b) At the Merger Effective Time, the Bylaws of the Company as the Surviving Corporation shall be amended and restated to read the same as the Bylaws of Merger Sub as in effect immediately prior to the Effective Time (except that all references to Merger Sub in the Bylaws of the Surviving Corporation shall be changed to refer to Avigen, Inc.), until amended thereafter in accordance with applicable Legal Requirements.

1.5. *Directors and Officers*. The directors and officers of Merger Sub immediately prior to the Merger Effective Time shall be the directors and officers of the Surviving Corporation, who shall hold office in accordance with the certificate of incorporation and bylaws of the Surviving Corporation, until the earlier of their resignation or removal or until their respective successors are duly elected and qualified, in any case in the manner provided in the certificate of incorporation and bylaws of the Surviving Corporation and in accordance with applicable Legal Requirements.

1.6. *Effect of the Merger on the Capital Stock of the Company*. Subject to the terms and conditions of this Agreement and the DGCL, at the Merger Effective Time, by virtue of the Merger and without any action on the part of Parent, Merger Sub, the Company or holders of any shares of capital stock or other securities of the Company, the following shall occur:

(a) *Company Common Stock*. Subject to *Section 1.6(c)*, each *Company Share*, which shall consist of a share of Company Common Stock and the associated preferred share purchase right (a *Company Right*) issued pursuant to the Rights Agreement between the Company and American Stock Transfer & Trust Co. LLC, dated as of November 21, 2008 (the *Company Rights Agreement*), that is outstanding immediately prior to the Merger Effective Time, will be cancelled and extinguished and (other than any Dissenting Shares (as defined below)) automatically converted into the right to receive the following, without interest:

(i) (A) for each Company Share with respect to which an election to receive cash has been effectively made and not revoked or deemed revoked pursuant to *Section 1.9* (a *Cash Election*), the right to receive in cash from Parent an amount equal to the First Payment Consideration and the Second Payment Consideration, if any (collectively, the *Cash Consideration*); or

(B) for each Company Share with respect to which an election to receive Convertible Notes has been effectively made and not revoked or deemed revoked pursuant to *Section 1.9* (a *Convertible Notes Election*), the right to receive from Parent one Convertible Note with a face value equal to the First Payment Consideration and the Second Payment Consideration, if any (collectively, the *Convertible Notes Consideration*); or

(C) for each Company Share other than shares as to which a Convertible Notes Election or a Cash Election has been effectively made and not revoked or deemed revoked pursuant to *Section 1.9* (collectively, the *Non-Election Shares*), the right to receive from Parent

Table of Contents

(a) cash equal to 50% of the First Payment Consideration and the Second Payment Consideration, if any, and
(b) Convertible Notes with a face value equal to 50% of the First Payment Consideration and the Second Payment Consideration, if any; and

(ii) for each Company Share, the right to receive one Contingent Payment Right.

As used herein, the term *Merger Consideration*, refers, as applicable, to either (A) the combination of the Convertible Notes Consideration and one Contingent Payment Right, (B) the combination of the Cash Consideration and one Contingent Payment Right or (C) the combination of Cash Consideration and Convertible Notes Consideration and one Contingent Payment Right, all as elected or designated in accordance with *Section 1.9*.

(b) *Company Options and Company Warrants*. All of the Company s unexercised and outstanding options (the *Company Options*) issued and outstanding immediately prior to the Merger Effective Time under the Company s 2006 Incentive Stock Option Plan, 2000 Equity Incentive Plan, 1996 Equity Incentive Plan, 1996 Non-Employee Directors Stock-Option Plan and any other plan or agreement pursuant to which Company Options have been issued by the Company (the *Company Stock Plans*) and, to the extent cancelable unilaterally by the Company in the Merger, all of the Company s unexercised and outstanding warrants (the *Company Warrants*) shall be cancelled at or prior to the Merger Effective Time, and any holders of a Company Option or Company Warrant shall cease to have any rights with respect thereto. The Surviving Corporation shall have no duty to assume any obligations under the Company Options or Company Warrants or to provide any substitute benefit for the securities that would have been provided upon exercise of the Company Options or Company Warrants except to the extent a Company Warrant is not cancelable unilaterally by the Company in the Merger, in which case such Company Warrant shall become a warrant for the amount of Merger Consideration which would have been payable if such Company Warrant had been exercised, and a Cash Election had been made, prior to the Closing. At or prior to the Merger Effective Time, the Company agrees to take all necessary action to effect the termination of (i) all outstanding Company Options, (ii) the Company Stock Plans and (iii) all outstanding Company Warrants cancelable unilaterally by the Company in the Merger.

(c) *Cancellation of Treasury and Parent Owned Stock*. Each Company Share, if any, held by the Company or Parent or any direct or indirect wholly-owned Subsidiary of Parent immediately prior to the Merger Effective Time shall be canceled and extinguished without any conversion thereof.

1.7. *No Fractional Notes*. No fraction of a Convertible Note shall be issued pursuant to the issuance of Merger Consideration.

1.8. *Capital Stock of Merger Sub*. Each share of Merger Sub s common stock, par value $0.001 (the *Merger Sub Common Stock*), issued and outstanding immediately prior to the Merger Effective Time shall be converted into one fully paid and non-assessable share of the Surviving Corporation s common stock, par value $0.001 per share (the *Surviving Corporation Common Stock*). Following the Merger Effective Time, each certificate evidencing ownership of shares of Merger Sub Common Stock shall evidence ownership of the same number of shares of the Surviving Corporation Common Stock.

1.9. *Surrender of Certificates*.

(a) *Election Procedures*. Each holder of record of shares of Company Common Stock (*Holder*) shall have the right, subject to the limitations set forth in this *Article I*, to submit an election in accordance with the following procedures:

(i) Each Holder may specify in a request made in accordance with the provisions of this *Section 1.9* (herein called an *Election*) (i) the number of shares of Company Common Stock owned by such Holder with respect to which such Holder desires to make a Convertible Notes Election and (ii) the number of shares of Company Common Stock owned by such Holder with respect to which such Holder desires to make a Cash Election.

(ii) Parent shall prepare a form reasonably acceptable to the Company (the *Form of Election*) which shall be mailed to Holders so as to permit the exercise of their right to make an Election prior to the Election Deadline. Parent shall make the Form of Election initially available not less than twenty (20) Business Days prior to the anticipated Election Deadline and shall use its commercially reasonable efforts to make available as promptly as possible a Form of Election to any Holder who requests such Form of Election following the initial mailing of the Forms of Election and prior to the Election Deadline.

(iii) Any Election shall have been made properly only if the person authorized to receive Elections and to act as exchange agent under this Agreement, which person or persons shall be a bank or trust company selected by Parent with the consent of the Company, such consent not to be unreasonably withheld (the *Exchange Agent*), pursuant to an agreement substantially in the form of *Exhibit A* hereto (the *Exchange Agent Agreement*) entered into prior to the mailing of the Form of Election to Holders, shall have received, by the Election Deadline, a Form of Election properly completed and signed. As used herein, unless otherwise agreed in advance by the parties, *Election Deadline* shall mean 5:00 p.m. New York City time on the date of the Company Stockholders Meeting. Parent and the Company shall cooperate to issue a press release reasonably satisfactory to each of them announcing the date of the Election Deadline not more than fifteen (15) Business Days before, and at least five (5) Business Days prior to, the Election Deadline.

(iv) Any Holder that has previously made a valid Election may, at any time prior to the Election Deadline, change or revoke his or her Election by written notice received by the Exchange Agent prior to the Election Deadline accompanied by a properly completed and signed revised Form of Election. Subject to the terms of the Exchange Agent Agreement, if Parent shall determine in its reasonable discretion that any Election is not properly made with respect to any shares of Company Common Stock (neither Parent nor Company nor the Exchange Agent being under any duty to notify any stockholder of any such defect), such Election shall be deemed to be not in effect, and the shares of Company Common Stock covered by such Election shall, for purposes hereof, be deemed to be Non-Election Shares, unless a proper Election is thereafter timely made.

(v) Any Holder may, at any time prior to the Election Deadline, revoke his or her Election by written notice received by the Exchange Agent prior to the Election Deadline. All Elections shall be automatically deemed revoked upon termination of this Agreement in accordance with *Article VII*.

(vi) Subject to the terms of the Exchange Agent Agreement, Parent, in the exercise of its reasonable discretion, shall have the right to make all determinations, not inconsistent with the terms of this Agreement, governing the validity of the Forms of Election and compliance by any Holder with the Election procedures set forth herein.

(b) *Deposit of Merger Consideration*. At or prior to the Merger Effective Time, (i) Parent shall deposit, or shall cause to be deposited, with the Exchange Agent, a number of Convertible Notes sufficient to deliver, and Parent shall instruct the Exchange Agent to timely deliver, the aggregate Convertible Notes Consideration, (ii) Company shall deposit, or shall cause to be deposited, with the Exchange Agent immediately available funds equal to the aggregate amount of Cash Consideration required to be paid in connection with actual or deemed Cash Elections (collectively, the *Exchange Fund*) and with the Trustee under the Trust Agreement immediately available funds equal to the initial principal amount of Convertible Notes required to be issued in connection with actual or deemed Convertible Notes Elections and (iii) Parent shall instruct the Exchange Agent to timely pay such aggregate First Payment Consideration owing to Holders electing the Cash Consideration. Company also shall deposit $1,500,000 plus the amount by which the aggregate cash liquidation proceeds of the Company s marketable securities and restricted investments held as of June 30, 2009 that are available as of the Closing Date exceed $28,021,000 with the Escrow Agent and Parent shall instruct the Escrow Agent to timely pay such amounts (as well as any Additional Assets) in accordance with *Section 1.15* hereof. Parent shall use its commercially reasonable efforts to maximize the amount of Additional Assets, shall deposit all Additional Assets with the Escrow Agent as promptly as practicable following receipt in cash and shall provide timely notice to Avigen Representative of the deposit of such Additional Assets.

Table of Contents

(c) *Delivery of Merger Consideration.*

(i) As soon as reasonably practicable after the Merger Effective Time, the Exchange Agent shall mail to each Holder whose shares were converted into the right to receive the Merger Consideration pursuant to *Section 1.6*, (i) a letter of transmittal (which shall specify that delivery shall be effected, and risk of loss and title to certificates which immediately prior to the Merger Effective Time represented outstanding shares of Company Common Stock (the *Certificates*) shall pass, only upon delivery of Certificate(s) (or affidavits of loss in lieu of such Certificate(s))) (the *Letter of Transmittal*) and (ii) instructions for use in surrendering Certificate(s) in exchange for the Merger Consideration upon surrender of such Certificate.

(ii) Upon surrender to the Exchange Agent of its Certificate(s), accompanied by a properly completed Letter of Transmittal, a Holder shall be entitled to receive, promptly after the Merger Effective Time, the Merger Consideration (elected or deemed elected by it, subject to, and in accordance with *Sections 1.6* and *1.9*) in respect of the shares of Company Common Stock represented by its Certificate(s). Until so surrendered, each such Certificate shall represent after the Merger Effective Time, for all purposes, only the right to receive, without interest, the applicable Merger Consideration upon surrender of such Certificate in accordance with this *Article I.*

(iii) In the event of a transfer of ownership of a Certificate representing Company Common Stock that is not registered in the stock transfer records of the Company, the proper amount of cash and/or Convertible Notes shall be paid or issued in exchange therefor to a person other than the person in whose name the Certificate so surrendered is registered if the Certificate formerly representing such Company Common Stock shall be properly endorsed or otherwise be in proper form for transfer and the person requesting such payment or issuance shall pay any transfer or other similar Taxes required by reason of the payment or issuance to a person other than the registered Holder of the Certificate or establish to the reasonable satisfaction of Parent that the Tax has been paid or is not applicable. The Exchange Agent (or, subsequent to the date referred to in *Section 1.9(e)*, Parent) shall be entitled to deduct and withhold from any cash portion of the Merger Consideration and any other cash amounts otherwise payable pursuant to this Agreement to any Holder such amounts as the Exchange Agent or Parent, as the case may be, is required to deduct and withhold under the Internal Revenue Code of 1986, as amended, (the *Code*) or any provision of state, local or foreign Tax law, with respect to the making of such payment. To the extent the amounts are so deducted and withheld by the Exchange Agent or Parent, as the case may be, and paid or to be paid to the appropriate Taxing Authority, such deducted and withheld amounts shall be treated for all purposes of this Agreement as having been paid to the Holder in respect of whom such deduction and withholding was made by the Exchange Agent or Parent, as the case may be.

(iv) After the Merger Effective Time, there shall be no transfers on the stock transfer books of Company of any shares of Company Common Stock that were issued and outstanding immediately prior to the Merger Effective Time other than to settle transfers of Company Common Stock that occurred prior to the Merger Effective Time. If, after the Merger Effective Time, Certificates representing such shares are presented for transfer to the Exchange Agent, they shall be cancelled and exchanged for the Merger Consideration in accordance with *Section 1.6* and the procedures set forth in this *Section 1.9.*

(v) Any portion of the Exchange Fund that remains unclaimed by Company stockholders as of the date referred to in *Section 1.9(e)* shall be paid to Parent. Any former Company stockholders who have not theretofore complied with this *Section 1.9* shall thereafter look only to Parent with respect to the Merger Consideration and any unpaid distributions on Convertible Notes deliverable in respect of each share of Company Common Stock such stockholder holds as determined pursuant to this Agreement, in each case, without any interest thereon. Notwithstanding the foregoing, none of Parent, Company, the Exchange Agent or any other person shall be liable to any former Company stockholder for any amount delivered in good faith to a public official pursuant to applicable abandoned property, escheat or similar laws.

Table of Contents

(d) *No Liability*. Notwithstanding anything to the contrary in this *Section 1.9*, neither the Exchange Agent, the Surviving Corporation nor any party hereto shall be liable to a Holder of a Certificate for any Convertible Notes or cash paid to a public official pursuant to any applicable abandoned property, escheat or similar law.

(e) *Termination of Exchange Agent s Responsibilities.* Any Holders that do not surrender such Certificates to the Exchange Agent on or prior to the 1st Business Day of the twentieth (20th) calendar month following the Merger Effective Time shall look only to Parent to provide them with the Merger Consideration to which such Holders would be entitled. If any Certificate shall not have been surrendered prior to the fifth anniversary of the Closing (or immediately prior to such earlier time as such amounts would otherwise escheat to or become property of any Governmental Entity), such shares shall become, to the extent permitted by law, the property of Parent free and clear of any claims or interest of any Person previously entitled thereto.

(f) *Accrued Interest on the Merger Consideration*. No interest shall accrue on the Merger Consideration.

1.10. *No Further Ownership Rights in Company Shares*. All Convertible Notes issued and cash paid upon the surrender of Certificates in accordance with the terms of this *Article I* shall be deemed to have been paid in full satisfaction of all rights pertaining to the Company Shares, including shares of Company Common Stock, theretofore represented by such Certificates, and at the close of business on the day of the Merger Effective Time, the stock transfer books of the Company shall be closed, and there shall be no further registration of transfers on the records of the Surviving Corporation of the Company Shares that were outstanding immediately prior to the Merger Effective Time. If, after the Effective Time, Certificates are presented to the Surviving Corporation or the Exchange Agent for any reason, they shall be cancelled and exchanged as provided in this *Article I*.

1.11. *Lost, Stolen or Destroyed Certificates*. In the event any Certificates shall have been lost, stolen or destroyed, the Exchange Agent shall issue in exchange for such lost, stolen or destroyed Certificates, upon the making of an affidavit of that fact by the Holder thereof, the applicable Merger Consideration to which such Holder is entitled pursuant to *Section 1.6*; *provided*, *however*, that the Exchange Agent may, as a condition precedent to the issuance and payment thereof, require the owner of such lost, stolen or destroyed Certificates to deliver a bond in such sum as it may reasonably direct as indemnity against any claim that may be made against Parent, the Company, the Surviving Corporation or the Exchange Agent with respect to the Certificates alleged to have been lost, stolen or destroyed.

1.12. *Further Action*. The parties hereto shall execute and deliver such certificates and other documents and take such other actions as may be reasonably necessary or appropriate in order to effect the Merger, including, but not limited to, making filings, recordings or publications required under the DGCL. If, at any time after the Merger Effective Time, any further action is necessary to vest in the Surviving Corporation the title to all property or rights of Merger Sub or the Company, the authorized officers of the Surviving Corporation are fully authorized in the name of Merger Sub or the Company, as the case may be, to take, and shall take, any and all such lawful action.

1.13. *Dissenters Rights*. Notwithstanding anything in this Agreement to the contrary, shares of Company Common Stock issued and outstanding immediately prior to the Merger Effective Time held by Holders who are entitled to demand and properly demand appraisal of such shares of Company Common Stock (*Dissenting Shares*), pursuant to, and who comply in all respects with, Section 262 of the DGCL (the *Appraisal Rights*), shall not be converted into the right to receive the Merger Consideration, but shall be converted into the right to receive such consideration as may be due such Holder pursuant to Section 262 of the DGCL, unless and until such Holders fail to perfect, withdraw or otherwise lose their rights to such payment or appraisal. From and after the Merger Effective Time, Holders of Dissenting Shares shall not have and shall not be entitled to exercise any of the voting rights or other rights of a stockholder of the Surviving Corporation. If, after the Merger Effective

Table of Contents

Time, a Holder of Dissenting Shares fails to perfect, withdraws or otherwise loses its Appraisal Rights, then the shares of Company Common Stock held by such Holders that were formerly Dissenting Shares shall no longer be considered Dissenting Shares and shall be deemed to have converted as of the Merger Effective Time into the right to receive the Merger Consideration in accordance with *Section 1.6*; it being understood that the Holder or Holders of such shares of Company Common Stock shall be deemed thereupon to have made the same election as Non-Election Shares. The Company shall give prompt notice to Parent of any demands received by the Company for appraisal of Company Shares, withdrawals of such demands and any other instruments served pursuant to the DGCL received by the Company, and the opportunity to participate in and control all negotiations and proceedings with respect to demands for appraisal under the DGCL. Prior to the Merger Effective Time, the Company shall not, except with the prior written consent of Parent, voluntarily make any payment or advance with respect to, or settle or offer to settle, any such demands or agree to do or commit to do any of the foregoing.

1.14. *Stock Splits, Etc*. If, between the date of this Agreement and the Merger Effective Time, the outstanding shares of Company Common Stock are changed into a different number or class of shares by reason of any stock split, division or subdivision of shares, stock dividend, reverse stock split, consolidation of shares, reclassification, recapitalization or other similar transaction, or if a record date with respect to any such event shall occur during such period, then the Cash Consideration shall be appropriately adjusted. If, between the date of this Agreement and the Merger Effective Time, the outstanding shares of Parent Common Stock are changed into a different number or class of shares by reason of any stock split, division or subdivision of shares, stock dividend, reverse stock split, consolidation of shares, reclassification, recapitalization or other similar transaction, or if a record date with respect to any such event shall occur during such period, then the Convertible Notes Consideration shall be appropriately adjusted.

1.15. *Escrow Arrangements*.

(a) At the closing Parent and the Escrow Agent shall enter into the Escrow Agreement substantially in the form of *Exhibit B* hereto. At any time on or prior to June 30, 2010, Parent may deliver to the Escrow Agent a written certificate (a *Demand Certificate*) demanding that the Escrow Agent release to Parent all or a portion of the Escrow Account in satisfaction of the amount that Parent states is so owed in satisfaction of any Additional Liabilities. The Demand Certificate shall specify the aggregate amount of any such payment sought (the *Demand Amount*), shall describe in reasonable detail the basis for the demand, shall include payment instructions, and shall certify that Parent has contemporaneously delivered a copy of the Demand Certificate to Avigen Representative at the address set forth in *Section 8.3*. In no event shall the Escrow Agent be required to determine whether the detail thus provided in the Demand Certificate is in fact reasonable. For the avoidance of doubt, only one Demand Certificate may be delivered by Parent to the Escrow Agent.

(b) Upon receipt of the Demand Certificate, Avigen Representative may request, and Parent shall promptly (and in any event within five (5) Business Days) provide, such further information and documentation available to Parent and reasonably required to verify and evaluate the Demand Amount specified in such Demand Certificate. Unless the Escrow Agent receives a written notice of objection which shall be signed by Avigen Representative (an *Avigen Representative Objection*) to a Demand Certificate within thirty (30) days after the date of receipt by the Escrow Agent and Avigen Representative of such Demand Certificate from Parent, the Escrow Agent shall release to Parent, in satisfaction of the Demand Amount stated in such Demand Certificate, all or a portion of the Second Payment Consideration in the Escrow Account equal to the full Demand Amount. An Avigen Representative Objection, if any, shall specify in reasonable detail Avigen Representative s basis for objection and shall certify that Avigen Representative has contemporaneously delivered a copy of the Avigen Representative Objection to Parent at the address set forth in *Section 8.3*. In no event shall the Escrow Agent be required to determine whether the detail thus provided in the Avigen Representative Objection is in fact reasonable.

(c) In any Avigen Representative Objection to a Demand Certificate, Avigen Representative may state an objection to all or a portion of the Demand Amount sought in such Demand Certificate. If Avigen

Table of Contents

Representative objects to only a portion of such amount, such Avigen Representative Objection shall instruct the Escrow Agent to release, and the Escrow Agent shall release to Parent, in satisfaction of the unobjected-to portion of the Demand Amount, a portion of the Second Payment Consideration in the Escrow Account equal to such unobjected-to portion.

(d) If within 15 days after delivery of the Avigen Representative Objection, Parent and Avigen Representative shall be unable to resolve the dispute set forth in the Avigen Representative Objection, the Parent and Avigen Representative shall jointly retain Grant Thornton LLP (the *Independent Accountants*), as long as the Independent Accountants have not provided, accounting, audit, consulting or any other services to either Parent or Avigen Representative or any of their respective affiliates or to any director or officer of either Parent or Avigen Representative or any of their respective affiliates thereof within the last two years, and if such accounting firm fails to satisfy the foregoing independence requirement then Parent and Avigen Representative agree the Independent Accountants will select an alternative nationally recognized firm of certified public accountants in the United States that has not done so as the replacement Independent Accountants. The Independent Accountants may request of Parent or Avigen Representative such documents and information as may be necessary or appropriate for proper determination of the amount to be deducted from the Second Payment Consideration, and Parent and Avigen Representative shall cooperate to promptly satisfy any such request. The Independent Accountants shall review such information, and shall, as promptly as practicable, and in no event later than 30 days following the date of their engagement, select either (x) the Demand Amount or (y) the Demand Amount, as adjusted by the amounts contested in the Avigen Representative Objection, as the one alternative that most closely reflects the numerical amount that the Independent Accountants believes is accurate (the *Selected Amount*). For the avoidance of doubt, the Independent Accountants may not make their own independent determination of the amount to be deducted from the Second Payment Consideration. The fees and expenses of the Independent Accountants shall be deducted from the Second Payment Consideration in the event that the Demand Amount is chosen as the Selected Amount and shall be paid by Parent if the Demand Amount is not chosen as the Selected Amount. The Escrow Agent shall release to Parent, in full satisfaction of the obligations related to the Demand Amount, the amount which reflects any adjustments resulting from the Selected Amount.

(e) As promptly as practicable following receipt of the Demand Certificate or June 30, 2010 if no Demand Certificate is delivered, the Escrow Agent shall release the Second Payment Consideration less the Demand Amount, if any, as follows: with respect to shares of Company Common Stock for which the Cash Consideration was elected (including 50% of all Non-Election Shares in accordance with *Section 1.6*), the Escrow Agent shall pay to each Holder his pro rata portion of such amount in cash as promptly as practicable and with respect to shares of Company Common Stock for which the Convertible Notes Consideration was elected (including 50% of all Non-Election Shares in accordance with *Section 1.6*), the Escrow Agent shall pay to the trustee under the Trust Agreement the aggregate portion of such amount attributable to such shares of Company Common Stock as promptly as practicable; *provided*, that if the conversion feature set forth in Article Ten of the Indenture has been eliminated pursuant to Section 10.03(7) such payment shall be made to each Holder in cash.

(f) As promptly as practicable following the determination of the Selected Amount by the Independent Accountants, the Escrow Agent shall release any difference (to the extent such difference is positive) between the Demand Amount and the Selected Amount as follows: with respect to shares of Company Common Stock for which the Cash Consideration was elected (including 50% of all Non-Election Shares in accordance with *Section 1.6*), the Escrow Agent shall pay to each Holder his pro rata portion of such amount in cash as promptly as practicable and with respect to shares of Company Common Stock for which the Convertible Notes Consideration was elected (including 50% of all Non-Election Shares in accordance with *Section 1.6*), the Escrow Agent shall pay to the trustee under the Trust Agreement the aggregate portion of such amount attributable to such shares of Company Common Stock as promptly as practicable; *provided*, that if the conversion feature set forth in Article Ten of the Indenture has been eliminated pursuant to Section 10.03(7) such payment shall be made to each Holder in cash.

Table of Contents

1.16. *Avigen Representative*.

(a) Avigen Representative shall not have any liability for any actions taken or not taken in connection with this Agreement, except to the extent of its willful misconduct, bad faith or gross negligence. No provision of this Agreement shall require Avigen Representative to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder or in the exercise of any of its rights or powers.

(b) Avigen Representative undertakes to perform only such express duties and obligations as are specifically set forth in this Agreement, and no implied duties or obligations shall be read into this Agreement against Avigen Representative. In addition:

(i) Avigen Representative may rely and shall be protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;

(ii) whenever Avigen Representative shall deem it necessary or desirable that a fact or matter be proved or established prior to taking, suffering or omitting any action hereunder, Avigen Representative may, in the absence of willful misconduct, bad faith or gross negligence on its part, rely upon a certificate signed by the chief executive officer, president, chief financial officer, any vice president, the controller, the treasurer or the secretary, in each case of Parent, in his or her capacity as such an officer, and delivered to Avigen Representative;

(iii) Avigen Representative may consult with, and obtain advice from, legal counsel in the event of any question as to any of the provisions hereof or the duties hereunder, and it shall incur no liability and shall be deemed to be acting in accordance with the opinion and instructions of such counsel. Avigen Representative may perform any and all of its duties through its agents, representatives, attorneys, custodians and/or nominees;

(iv) if Avigen Representative becomes involved in litigation on account of this Agreement, it shall have the right to retain counsel and subject to the terms and conditions of this Agreement shall be entitled to reimbursement for all reasonable documented costs and expenses related thereto as provided in *Section 1.16(b)(viii)* hereof; *provided*, *however*, that Avigen Representative shall not be entitled to any such reimbursement to the extent such litigation ultimately determines that the Avigen Representative acted with willful misconduct, bad faith or gross negligence;

(v) in the event that conflicting demands are made upon Avigen Representative for any situation addressed or not addressed in this Agreement, Avigen Representative may withhold performance of the terms of this Agreement until such time as said conflicting demands shall have been withdrawn or the rights of the respective parties shall have been settled by court adjudication, arbitration, joint order or otherwise;

(vi) the permissive rights of Avigen Representative to do things enumerated in this Agreement shall not be construed as a duty;

(vii) Avigen Representative shall not be required to give any note or surety in respect of the execution of such powers or otherwise in respect of the premises; and

(viii) Notwithstanding anything to the contrary contained in this Agreement, Parent only agrees to reimburse the reasonable, documented out-of-pocket expenses of Avigen Representative in connection with this Agreement up to $50,000 (subject to the terms and conditions of this Agreement). An itemized invoice for any such expenses must be rendered to Parent prior to June 30, 2010.

(c) Avigen Representative may resign at any time by giving written notice thereof to Parent specifying a date when such resignation shall take effect, which notice shall be sent at least thirty (30) days prior to the date so specified.

Table of Contents

(d) If Avigen Representative shall decline to accept appointment at the Closing Date, resign, be removed or become incapable of acting, Kenneth Chahine shall be appointed a qualified successor Avigen Representative without further action. Should Kenneth Chahine decline such appointment or otherwise resign, be removed or become incapable of acting, Holders representing 25% of the shares of Company Common Stock outstanding immediately prior to the Merger Effective Time may appoint a qualified successor Avigen Representative who may be a Holder but shall not be an affiliate of Parent, provided that if Holders representing a greater percentage of shares of Company Common Stock shall appoint a qualified successor Avigen Representative, the Person appointed by the Holders representing a greater percentage of shares of Company Common Stock shall act as Avigen Representative. Any successor Avigen Representative appointed in accordance with this Section 1.16(d) shall, forthwith upon its acceptance of such appointment in accordance with this Section 1.16(d), become the successor Avigen Representative. The retiring Avigen Representative shall deliver all relevant books and records to the successor Avigen Representative.

(e) Buyer shall give notice of each resignation and each removal of an Avigen Representative and each appointment of a successor Avigen Representative by issuing a press release, which shall include the name and address of the successor Avigen Representative, within four (4) Business Days announcing such event. Failure to give any notice provided for in this Section 1.16(e), however, or any defect therein, shall not affect the legality or validity of the resignation or removal of Avigen Representative or the appointment of a successor Avigen Representative, as the case may be.

(f) If a successor Avigen Representative has not been appointed and has not accepted such appointment by the end of the thirty (30) calendar day period after the resignation, removal or incapacity of the retiring Avigen Representative, the retiring Avigen Representative may apply to a court of competent jurisdiction for the appointment of a successor Avigen Representative, and the costs, expenses and reasonable attorneys fees which are incurred in connection with such a proceeding shall be paid in accordance with this Section 1.16. Any such successor to the retiring Avigen Representative shall agree to be bound by the terms of this Agreement, and the retiring Avigen Representative shall provide the successor Avigen Representative with all relevant books and records. Upon delivery of all of the relevant books and records to a successor Avigen Representative, the retiring Avigen Representative shall thereafter be discharged from any further obligations hereunder and the successor Avigen Representative shall become Avigen Representative hereunder. Avigen Representative is hereby authorized, in any and all events, to comply with and obey any and all final judgments, orders and decrees of any court of competent jurisdiction which may be filed, entered or issued, and all final arbitration awards and, if it shall so comply or obey, it shall not be liable to any other Person by reason of such compliance or obedience.

(g) Every successor Avigen Representative appointed hereunder shall execute, acknowledge and deliver to Buyer and to the retiring Avigen Representative an instrument accepting such appointment and a counterpart of this Agreement, and thereupon such successor Avigen Representative, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Avigen Representative; *provided*, that upon the request of Buyer or the successor Avigen Representative, such retiring Avigen Representative shall execute and deliver an instrument transferring to such successor Avigen Representative all the rights, powers and trusts of the retiring Avigen Representative.

ARTICLE II

REPRESENTATIONS AND WARRANTIES OF THE COMPANY

Except as set forth or incorporated by reference in the Company SEC Reports or in the exhibits thereto, or disclosed in writing in the disclosure letter (which letter shall in each case specifically identify by reference to sections of this Agreement any exceptions to each of the representations, warranties and covenants contained in this Agreement) supplied by the Company to Parent dated as of the date hereof and certified by a duly authorized executive officer of the Company attached hereto as *Exhibit C* (the *Company Disclosure Letter*), provided that

disclosure in any section of the Company Disclosure Letter shall be deemed to have been set forth in all other applicable sections of the Company Disclosure Letter where the applicability of such disclosure is reasonably apparent to such other sections notwithstanding the omission of any cross-reference in the Company Disclosure Letter to such other sections, the Company represents and warrants to Parent and Merger Sub as follows:

2.1. *Organization; Standing and Power; Charter Documents*.

(a) *Organization; Standing and Power*. The Company is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware, (ii) has the requisite power and authority to own, lease and operate its properties and to carry on its business as now being conducted and (iii) is duly qualified or licensed and in good standing to do business in each jurisdiction in which the nature of its business or the ownership or leasing of its properties makes such qualification or licensing necessary, other than in such jurisdictions where the failure to so qualify or to be in good standing, individually or in the aggregate, would not reasonably be expected to have a Company Material Adverse Effect. The Company has no Subsidiaries.

(b) *Charter Documents*. The Company has Made Available to Parent a true and correct copy of its Certificate of Incorporation (including all Certificates of Designations) and its Bylaws, each as amended or amended and restated to date (collectively, the *Company Charter Documents*), and each such instrument is in full force and effect. The Company is not in violation of any of the provisions of the Company Charter Documents.

(c) *Minutes*. Except as set forth in *Section 2.1(c)* of the Company Disclosure Letter, the Company has Made Available to Parent true and complete copies of the minutes (or, in the case of minutes that have not yet been finalized, a brief summary of the meeting, including in each case a summary of any resolutions adopted by the Board of Directors of the Company) of all meetings of the stockholders, the Board of Directors and each committee of the Board of Directors of the Company since February 5, 2007.

2.2. *Capital Structure*.

(a) *Capital Stock*.

(i) The authorized capital stock of the Company consists of: (1) 100,000,000 shares of Company Common Stock, par value $0.001 per share and (2) 5,000,000 shares of preferred stock, par value $0.001 per share (the *Company Preferred Stock*). As of the date hereof: (i) 29,831,115 Shares of Company Common Stock are issued and outstanding, and (ii) no shares of Company Preferred Stock are issued and outstanding. No Shares of Company Common Stock are owned or held by the Company.

(ii) All of the outstanding shares of capital stock of the Company are, and all shares of capital stock of the Company that may be issued as contemplated or permitted by this Agreement will be, when issued, duly authorized and validly issued, fully paid and non-assessable and not subject to any preemptive rights. Except for the Company Rights issued pursuant to the Company Rights Agreement and as otherwise disclosed in *Section 2.2(a)(ii)* of the Company Disclosure Letter, there are no existing subscriptions, warrants, rights, options, calls or commitments of any character whatsoever, or Contracts (as defined below) to grant the same, relating to the issuance, sale, delivery or transfer by the Company of any capital stock of the Company, and the Company has no outstanding securities convertible into or exchangeable for any shares of the capital stock or other securities of the Company.

(b) *Stock Options, Warrants and Restricted Stock Units*.

(i) As of the date hereof: (i) 3,512,969 shares of Company Common Stock are subject to issuance pursuant to outstanding Company Options, (ii) 2,447,551 shares of Company Common Stock are reserved for future issuance pursuant to Company Options or other equity-based awards available for grant under the Company Stock Plans and (iii) 15,000 shares of Company Common Stock are subject to issuance pursuant to an outstanding warrant. Other than as disclosed in the Company Disclosure Letter, there are no outstanding or authorized stock appreciation, phantom stock, stock-based

Table of Contents

performance units, agreements, understandings, claims or other commitments or other similar rights (whether payable in stock, cash or other property) of any type granted or entered into by the Company relating to the issuance, sale, repurchase or transfer of any securities of the Company or that give any person the right to receive any economic benefit or right similar to or derived from the economic benefits and rights of securities of the Company. All of the Company s derivative securities, other than the warrant to subscribe for 15,000 shares of Company Common Stock, are cancelable in the Merger without any action on the part of the holder thereof.

(ii) *Section 2.2(b)(ii)* of the Company Disclosure Letter sets forth as of the date of this Agreement a list of each outstanding Company Option issued and (a) the particular Company Stock Plan pursuant to which such Company Option was granted, (b) the name and last known state of domicile of the holder of such Company Option, (c) the number of Shares of Company Common Stock subject to such Company Option, (d) the exercise price of such Company Option, (e) the date on which such Company Option was granted, (f) the applicable vesting schedule (including any acceleration provisions with respect thereto), and the extent to which such Company Option is vested and exercisable as of the date hereof, (g) the date on which such Company Option expires and (h) whether such Company Option is intended to qualify as an incentive stock option as defined in Section 422 of the Code. All shares of Company Common Stock subject to issuance under any Company Stock Plan or otherwise, upon issuance on the terms and conditions specified in the instruments pursuant to which they are issuable, would be duly authorized, validly issued, fully paid and non-assessable. True and complete copies of the forms of all agreements relating to Company Options issued under the Company Stock Plans have been Made Available to Parent, such forms of agreements are identical to the agreements evidencing such Company Options (other than with respect to the name of the holder, the per share exercise price, the number of shares of Company Common Stock subject to such Company Options and the applicable vesting schedule), and such agreements and instruments have not been amended, modified or supplemented, and the Company has no obligations under any Contract to amend, modify or supplement such agreements in any case from the forms Made Available to Parent (or the actual agreements evidencing such Company Options).

(iii) *Section 2.2(b)(iii)* of the Company Disclosure Letter sets forth (a) the name of the original holder of the sole outstanding Company warrant, (b) the number of shares of Company Common Stock subject to such warrant, (c) the exercise price of such warrant, and (d) the date on which such warrant expires. A true and complete copy of all agreements relating to the warrant has been Made Available to Parent, and such agreements have not been amended, modified or supplemented, and the Company has no obligations under any Contract to amend, modify or supplement such agreements.

(iv) No award (and no agreement or promise by the Company to make an award) under the Company Stock Plans or any other plan or agreement that provides for the granting of equity, equity-based rights, equity derivatives or options to purchase equity of the Company has been backdated or otherwise granted with an effective grant date that is other than the date on which the committee or administrator having authority to make awards under the applicable Company Stock Plan or other plan or agreement governing such award (i) took all necessary action to complete such award (unless such committee or other administrator specified a future grant date at the time it so acted), and (ii) timely communicated the terms of such award to the recipient in accordance with the Company s customary human resource practices and applicable accounting standards. In addition, no plan or agreement has been (or will be) altered in any manner that would result in or have the effect of failing to comply with the foregoing sentence.

(v) No Company Option has been granted with a purchase price that is less than the fair market value of the equity available for purchase thereunder as of the applicable grant date. In addition, no Company Option provides for any additional payment, such as dividend equivalent payments or tax gross ups, that could be interpreted as a reduction in the purchase price of such option.

(c) *Voting Debt*. No bonds, debentures, notes or other indebtedness of the Company (i) having the right to vote on any matters on which stockholders may vote (or which are convertible into, or exchangeable for,

securities having such right) or (ii) the value of which is in any way based upon or derived from capital or voting stock of the Company are issued or outstanding as of the date hereof (collectively, *Voting Debt*).

(d) *Other Securities*.

(i) As of the date hereof, other than as disclosed in *Section 2.2(d)* of the Company Disclosure Letter or herein, there are no securities, options, warrants, calls, rights, contracts, commitments, agreements, instruments, arrangements, understandings, obligations or undertakings of any kind to which the Company is a party or by which any of them is bound obligating the Company to (including on a deferred basis) issue, deliver or sell, or cause to be issued, delivered or sold, additional shares of capital stock, Voting Debt or other voting securities of the Company, or obligating the Company to issue, grant, extend or enter into any such security, option, warrant, call, right, commitment, agreement, instrument, arrangement, understanding, obligation or undertaking.

(ii) All outstanding shares of Company Common Stock, all outstanding Company Options and all outstanding warrants of the Company have been issued and granted in compliance with (i) all applicable federal, state and foreign securities laws and all other applicable Legal Requirements and (ii) all requirements set forth in applicable material Contracts. There are not any outstanding Contracts of the Company to repurchase, redeem or otherwise acquire any shares of capital stock of, or other equity or voting interests in, the Company. The Company is not a party to any voting agreement with respect to shares of the capital stock of, or other equity or voting interests in, the Company and, to the Knowledge of the Company, there are no irrevocable proxies and no voting agreements, voting trusts or registration rights agreements with respect to any shares of the capital stock of, or other equity or voting interests in, the Company.

2.3. *Authority; Non-Contravention; Necessary Consents.*

(a) *Authority*. The Company has all requisite corporate power and authority to enter into this Agreement, subject to the adoption of this Agreement by the affirmative vote of the holders of a majority of the outstanding Shares of Company Common Stock (the *Required Company Stockholders*). The execution and delivery of this Agreement and the consummation of the transactions contemplated hereby have been duly authorized by all necessary corporate action on the part of the Company and no other corporate proceedings on the part of the Company are necessary to authorize the execution and delivery of this Agreement or to consummate the Merger and the other transactions contemplated hereby, subject only to the adoption of this Agreement by the Required Company Stockholders and the filing of the Certificate of Merger as required by the DGCL. The affirmative vote of the Required Company Stockholders is the only vote of the holders of any class or series of Company capital stock necessary to adopt this Agreement. This Agreement has been duly executed and delivered by the Company and, assuming due authorization, execution and delivery by Parent and Merger Sub, constitutes a valid and binding obligation of the Company, enforceable against the Company in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar Legal Requirements relating to or affecting creditors generally.

(b) *Non-Contravention*. The execution and delivery of this Agreement by the Company does not, and the performance of this Agreement by the Company will not: (i) assuming the Required Company Stockholders adopt this Agreement, conflict with or violate the Company Charter Documents, (ii) subject to obtaining the adoption of this Agreement by the Company s stockholders as contemplated in *Section 5.2* and compliance with the requirements set forth in *Section 2.3(c)*, conflict with or violate any Legal Requirements applicable to the Company or by which the Company or any of its properties is bound or affected or (iii) result in any breach of or constitute a default (or an event that with notice or lapse of time or both would become a default) under, or impair the Company s rights or alter the rights or obligations of any third party under, or give to others any rights of termination, amendment, acceleration or cancellation of, or result in the creation of a Lien (other than any Permitted Lien) on any of the properties or assets of the Company pursuant to, any contract, agreement, lease, indenture or other instrument or obligation to which it

Table of Contents

is a party or by which it, or any of its properties, is bound, except, as to clauses (ii) and (iii), respectively, for any such conflicts, violations, breaches, defaults or other occurrences which would not, individually or in the aggregate, reasonably be expected to have a Company Material Adverse Effect. No consents, waivers and approvals under any of the Company s Contracts are required to be obtained in connection with the consummation of the transactions contemplated hereby (including the Merger).

(c) *Necessary Consents*. No consent, approval, order or authorization of, or registration, declaration or filing with any supranational, national, state, municipal, local or foreign government, any instrumentality, subdivision, court, administrative agency or commission or other governmental authority or instrumentality, or any quasi-governmental or private body exercising any regulatory, taxing, importing or other governmental or quasi-governmental authority (a *Governmental Entity*) is required to be obtained or made by the Company in connection with the execution and delivery of this Agreement or the consummation of the Merger and other transactions contemplated hereby, except for: (i) the filing of the Certificate of Merger with the Secretary of State of the State of Delaware and appropriate documents with the relevant authorities of other states in which the Company and/or Parent are qualified to do business, (ii) the filing of the Proxy Statement/Prospectus with the Securities and Exchange Commission (the *SEC*) in accordance with the Securities Exchange Act of 1934, as amended (the *Exchange Act*), and the effectiveness of the Registration Statement, in which the Proxy Statement/Prospectus will be included, and (iii) such consents, approvals, orders, authorizations, registrations, declarations and filings as may be required under applicable state securities or blue sky laws and the securities laws of any foreign country.

2.4. *SEC Filings; Financial Statements; Internal Controls.*

(a) *SEC Filings*. The Company has filed all required registration statements, prospectuses, reports, schedules, forms, statements and other documents (including exhibits and all other information incorporated by reference) required to be filed by it with the SEC since January 1, 2006 (the *Company SEC Reports*). As of their respective dates or, if amended or supplemented prior to the date of this Agreement, as of the date of such amendment or supplement, each Company SEC Report (i) complied in all material respects with the requirements of the Securities Act of 1933, as amended (the *Securities Act*), or the Exchange Act, as the case may be, and the rules and regulations of the SEC promulgated thereunder applicable to such Company SEC Reports and (ii) did not at the time such Company SEC Report was filed (or became effective in the case of a registration statement), or if amended, supplemented or superseded by a filing prior to the date of this Agreement then on the date of such superseding filing, amendment or supplement, contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The Company has not prepared any amendments or modifications, which have not yet been filed with the SEC but which are required to be filed, to agreements, documents or other instruments which previously had been filed by the Company with the SEC pursuant to the Securities Act or the Exchange Act.

(b) *Financial Statements*. Each of the financial statements (including, in each case, any related notes thereto) contained in the Company SEC Reports (the *Company Financials*) (as amended or supplemented prior to the date of this Agreement, if applicable): (i) was prepared in accordance with United States generally accepted accounting principles (*GAAP*) applied on a consistent basis throughout the periods involved (except as may be indicated in the notes thereto or, in the case of unaudited interim financial statements, as may be permitted by the SEC on Form 10-Q under the Exchange Act), and (ii) fairly presented in all material respects the financial position of the Company as at the respective dates thereof and the results of the Company s operations and cash flows for the periods indicated except that the unaudited interim financial statements were or are subject to normal year end adjustments which were not, or are not expected to be, material in amount to the Company. The Company does not intend to correct or restate nor is there any basis for any correction or restatement of, in any material respect, any aspect of the Company Financials. Except as disclosed in the Company Financials, the Company has no liabilities (absolute, accrued, contingent or otherwise) of a nature required to be reflected or reserved against on a balance sheet

Table of Contents

or in the related notes to the financial statements prepared in accordance with GAAP, except for liabilities or obligations (1) under this Agreement or incurred in connection with the transactions contemplated hereby, (2) incurred in the ordinary course of business and consistent with past practices since the date of the Company Balance Sheet or (3) which are not, individually in an amount greater than $25,000 or in the aggregate greater than $100,000.

(c) *Internal Controls*. The Company has established and maintains disclosure controls and procedures and internal control over financial reporting, as such terms are defined in, and as required by, Rules 13a-15 and 15d-15 under the Exchange Act. The Company s disclosure controls and procedures are reasonably designed to ensure that all material information required to be disclosed by the Company in the reports that it files or furnishes under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC, and that all such material information is accumulated and communicated to the Company s management as appropriate to allow timely decisions regarding required disclosure and to make the certifications required pursuant to Sections 302 and 906 of the Sarbanes-Oxley Act of 2002, as amended (the *Sarbanes-Oxley Act*). The Company s management has completed an assessment of the effectiveness of the Company s system of internal control over financial reporting in compliance with the requirements of Section 404 of the Sarbanes-Oxley Act for the fiscal year ended December 31, 2008, and such assessment concluded that such controls were effective and the Company s independent registered accountant has issued (and not subsequently withdrawn or qualified) an attestation report concluding that the Company maintained effective internal control over financial reporting as of December 31, 2008. Except as set forth in *Section 2.4(c)* of the Company Disclosure Letter, since December 31, 2008 and through the date hereof, no events, facts or circumstances have occurred, or exist, such that management would not be able to complete its assessment of the effectiveness of the Company s system of internal controls over financial reporting in compliance with the requirements of Section 404 of the Sarbanes-Oxley Act for the fiscal year ended December 31, 2009, and conclude, after such assessment, that such controls was effective. The principal executive officer and principal financial officer, including when such positions have been held by the same person, of the Company have made all certifications required by the Sarbanes-Oxley Act and any related rules and regulations promulgated by the SEC since December 31, 2006. The Company has established and maintains and adheres to and enforces in all material respects a system of internal control over financial reporting, which is sufficient in all material respects to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements (including the Company Financials) for external purposes in accordance with GAAP. Since the date of the Company s most recent quarterly report on Form 10-Q filed with the SEC on August 10, 2009, neither the Company (including any Employee) nor the Company s independent auditors has identified or been made aware of (A) any significant deficiency or material weakness in the design or operation of internal control over financial reporting utilized by the Company, (B) any fraud, whether or not material, that involves the Company s management or other Employees or (C) any claim or allegation regarding any of the foregoing. In connection with the periods covered by the Company Financials since January 1, 2009, there have been no significant deficiencies and material weaknesses identified in writing by the Company or the Company s independent auditors (whether current or former) in the design or operation of the internal control over financial reporting utilized by the Company. The Company is in compliance in all material respects with (i) the applicable provisions of the Sarbanes-Oxley Act and (ii) the applicable listing and corporate governance rules and regulations of The Nasdaq Stock Market, Inc. (*Nasdaq*).

2.5. *Absence of Certain Changes or Events*. Since the date of the Company Balance Sheet, there has not been any Company Material Adverse Effect. Between June 30, 2009 and the date of this Agreement, except as set forth in *Section 2.5* of the Company Disclosure Letter, there has not been (i) any declaration, setting aside or payment of any dividend on, or other distribution (whether in cash, stock or property) in respect of, any of the Company s capital stock, or any purchase, redemption or other acquisition by the Company of any of the Company s capital stock or any other securities of the Company or any options, warrants, calls or rights to acquire any such shares or other securities, (ii) any split, combination or reclassification of any shares of the Company s capital stock; (iii) any granting by the Company of any increase in compensation or fringe benefits,

Table of Contents

(iv) entry by the Company into any licensing or other agreement with regard to the acquisition or disposition of any material Intellectual Property, (v) any amendment or consent with respect to any Company Scheduled Contract in effect since the date of the Company Balance Sheet, (vi) any material change by the Company in its accounting methods, principles or practices, except as required by concurrent changes in GAAP, (vii) any change by the Company in any Tax accounting method, Tax accounting period or Tax election, any amended Tax Return filed, any settlement or compromise with respect to any Tax liability or claims, any agreement to extend or waive the statute of limitations with respect to the assessment or determination of Taxes, any Tax indemnity, Tax allocation or Tax sharing agreement entered into, any private letter ruling, closing agreement or similar ruling or agreement entered into with respect to any Tax, or any surrender by the Company of any right to claim a Tax refund, (viii) any creation, incurrence, assumption or guarantee by the Company of any obligations or liabilities (whether absolute, accrued, contingent or otherwise and whether due or to become due) apart from those obligations referred to in the last sentence of *Section 2.4(b)*, (ix) any sale, transfer or other disposition of any assets of the Company, (x) mortgage, pledge or subjection to any Lien (other than any Permitted Lien) of any of the assets of the Company, (xi) failure to pay any current obligations of the Company in accordance with general practices of the Company, (xii) damage, destruction or casualty loss, whether covered by insurance or not, materially and adversely affecting the business, operations or financial condition of the Company, (xiii) lending any money or otherwise pledging the credit of the Company to any party, (xiv) labor trouble, material controversies or material unsettled grievances threatened against the Company or (xv) any binding agreement, in writing or otherwise, for the Company to take any of the actions specified in clauses (i) through (xiv) above.

2.6. *Tax Matters*.

(a) The Company has prepared or caused to be prepared and timely filed or caused to be filed all required Tax Returns relating to any and all Taxes concerning or attributable to the Company or its respective operations, taking into account any extensions of time within which to file such Tax Returns, and such Tax Returns, in all material respects, are true and correct and have been completed in accordance with applicable Legal Requirements. The Company is not currently the beneficiary of any extension of time within which to file any Tax Return.

(b) The Company has timely paid all Taxes required to be paid, and paid or withheld with respect to its Employees and other third parties (and paid over to the appropriate Taxing Authority) pursuant to all income Taxes, the Federal Insurance Contribution Act, Federal Unemployment Tax Act and other Taxes required to be paid or withheld. No claim has ever been made by any Taxing Authority in a jurisdiction where the Company does not file Tax Returns that the Company is or may be subject to Tax in that jurisdiction.

(c) The Company has not been delinquent in the payment of any material Tax, nor is there any Tax deficiency outstanding, assessed or proposed in writing against the Company, nor has the Company executed any waiver of any statute of limitations on or extending the period for the assessment or collection of any Tax.

(d) Except as set forth in *Section 2.6(d)* of the Company Disclosure Letter, no audit or other examination of any Tax Return of the Company is pending or currently in progress, nor has the Company been notified in writing by any Taxing Authority of any request for such an audit or other examination.

(e) The Company has no material liabilities for unpaid Taxes as of the date of the Company Balance Sheet, and the Company has not incurred any liability for Taxes since the date of the Company Balance Sheet other than in the ordinary course of business.

(f) The Company has Made Available to Parent or its legal counsel, copies of all material Tax Returns for the Company filed since the fiscal year ended December 31, 2006.

(g) There are no Tax liens upon any property or assets of the Company except for liens for current Taxes not yet due and payable or Taxes which are being contested in good faith and for which adequate reserves have been established on the Company Balance Sheet in accordance with GAAP.

(h) The Company is not and has not been during the applicable period specified in Section 897(c)(1)(A)(ii) of the Code, a United States Real Property Holding Corporation within the meaning of Section 897(c)(2) of the Code.

(i) The Company has not (a) ever been a member of an affiliated group (within the meaning of Section 1504(a) of the Code) filing a consolidated U.S. federal income Tax Return (other than a group the common parent of which was the Company), (b) ever been a party to any Tax Sharing Agreement, nor does the Company owe any amount under any Tax Sharing Agreement and (c) any liability for the Taxes of any Person (other than the Company) under Treasury Regulations Section 1.1502-6 (or any similar provision of state, local or foreign law, including any arrangement for group or consortium relief or similar arrangement), as a transferee or successor, or by operation of law.

(j) The Company has not constituted either a distributing corporation or a controlled corporation in a distribution of stock intended to qualify for tax-free treatment under Section 355 of the Code during the four-year period immediately preceding the Closing Date.

(k) The Company has not engaged in, or been a material adviser to, a reportable transaction under Treasury Regulations Section 1.6011-4(b), including any transaction that is the same as or substantially similar to one of the types of transactions that the Internal Revenue Service has determined to be a tax avoidance transaction and identified by notice, regulation, or other form of published guidance as a listed transaction.

2.7. *Intellectual Property*.

(a) *Section 2.7(a)* of the Company Disclosure Letter sets forth a true and complete list of all Registered (i) trademarks, service marks, certification marks, collective marks, d/b/a s, Internet domain names, logos, symbols, trade dress, assumed names, fictitious names, trade names and other indicia of origin, all applications and registrations for the foregoing and all goodwill associated therewith and symbolized thereby, including all renewals of same, and (ii) all patents, registrations, invention disclosures and applications therefor, including divisions, continuations, continuations-in-part and renewal applications, and including renewals, extensions and reissues, in each case that are currently owned or co-owned by the Company, except for Intellectual Property intentionally abandoned by the Company, indicating for each registered item the registration or application number and the applicable filing jurisdiction (collectively, the *Scheduled Intellectual Property*). As used herein, *Intellectual Property* shall mean all Scheduled Intellectual Property, together with all (x) confidential information, trade secrets and know-how, and similar proprietary rights in inventions, discoveries, analytic models, improvements, products, product candidates, processes, schematics, business methods, formulae, drawings, prototypes, designs and supplier lists (collectively, *Trade Secrets*), (y) published and unpublished works of authorship, whether copyrightable or not (including databases and other compilations of information), copyrights therein and thereto, and registrations and applications therefor, and all renewals, extensions, restorations and reversions thereof and (z) all other material intellectual property or proprietary rights currently owned, co-owned or licensed by the Company. The Company exclusively or jointly owns with third parties (beneficially, and of record where applicable) or has the valid right to use all Intellectual Property free and clear of all Liens (excluding Permitted Liens and licenses, covenants not to sue and related restrictions). The Intellectual Property is valid, subsisting and enforceable, and is not subject to any outstanding order, judgment, decree or agreement adversely affecting the Company s use thereof or its rights thereto.

(b) *Section 2.7(b)* of the Company Disclosure Letter sets forth, as of the date of this Agreement, a true and complete list of all agreements to which the Company is a party that grant the Company rights to use any material Intellectual Property owned or held by any other Person (the *Licensed Intellectual Property*), material non-assertion agreements, agreements granting rights to any third party to use any material Intellectual Property owned or co-owned by the Company, material trademark coexistence agreements and material trademark consent agreements (the *Intellectual Property Contracts*) (other than licenses for commercial off-the-shelf or shrink-wrap software and other than agreements granting non-exclusive licenses to distributors, marketing agents, contract manufacturers and other contractors, consultants or agents).

Table of Contents

The Licensed Intellectual Property is valid, subsisting and enforceable and is not subject to any outstanding order, judgment, decree or agreement adversely affecting the Company s use thereof or their rights thereto. Consummation of the transactions contemplated by this Agreement will not place the Company in breach or default of any Intellectual Property Contract, or trigger any modification, termination or acceleration thereunder, or create any license under or Lien on Intellectual Property owned or held by Parent.

(c) The Company has sufficient rights to use all Intellectual Property used in its business as currently conducted and to be used in its business as proposed to be conducted, all of which rights shall survive unchanged the consummation of the transactions contemplated by this Agreement. The Company does not and has not in the past five years knowingly infringed or otherwise violated the Intellectual Property rights of any third party. There is no litigation, opposition, cancellation, proceeding, objection or claim pending, or to the Knowledge of the Company, asserted or threatened in writing in the past two years against the Company concerning the ownership, validity, registerability, enforceability, infringement or use of, or licensed right to use, any material Intellectual Property (other than in the ordinary course of prosecution of the Company s Intellectual Property before any Governmental Entity). No valid basis for any such litigation, opposition, cancellation, proceeding, objection or claim exists. No Person is violating any Scheduled Intellectual Property right or other Intellectual Property right.

(d) The Company has taken reasonable measures to protect the confidentiality and value of all material Trade Secrets that are owned, used or held by the Company, including entering into licenses and contracts that require Employees, licensees, consultants employed or engaged by the Company and other third Persons who have contributed to the creation and development of such Trade Secrets to keep such Trade Secrets confidential. In the case of Employees and consultants who have contributed to the creation and development of Intellectual Property intended to be owned by the Company, such Employees or consultants are required to assign to the Company all Intellectual Property created by such Employee or consultant in the scope of employment or consultancy with the Company to the extent that the Company does not acquire such rights (pursuant to a work for hire agreement or otherwise) as a matter of law. Such material Trade Secrets have not been used, disclosed to or discovered by any Person except pursuant to valid and appropriate non-disclosure and/or license agreements which have not been breached.

(e) No Employee, consultant or agent of the Company, past or present, is in default or breach of any term of any employment agreement, nondisclosure agreement, assignment of invention agreement or similar agreement or contract relating in any way to the protection, ownership, development, use or transfer of Intellectual Property or Licensed Intellectual Property. None of the Company s current Employees is the owner of any patent issued or applications pending for any device, process, design or invention of any kind that is necessary for the Company to conduct business, which patents or applications have not been assigned to the Company. The Company s Employees performance of their employment activities does not violate any third party s Intellectual Property rights or such Employees contractual obligations to any third Person.

(f) There are no patentability or non-infringement opinions in the possession of the Company with respect to the AV411 program.

2.8. *Compliance; Permits*.

(a) The Company is, and since January 1, 2006 has been, in compliance in all material respects with all applicable Legal Requirements. No investigation, claim, suit, proceeding, audit or other legal action by any Governmental Entity or authority is pending, or threatened in writing delivered to the Company, against the Company. There is no agreement, judgment, injunction, order or decree binding upon the Company that (i) has had or could reasonably be expected to have the effect of prohibiting or materially impairing any current business practice of the Company or the conduct of business by the Company as currently conducted, (ii) has had or could reasonably be expected to have a material adverse effect on the Company s ability to comply with or perform any covenant or obligation under this Agreement or (iii) has had or could reasonably be expected to have the effect of preventing, delaying, making illegal or otherwise interfering with the Merger or any of the other transactions contemplated hereby.

Table of Contents

(b) The Company holds all material permits, licenses, variances, clearances, consents, authorizations, commissions, franchises, exemptions, orders and approvals from Governmental Entities (collectively, the *Permits*) that have been required for the operation of the business of the Company since January 1, 2006 (collectively, the *Company Permits*). *Section 2.8(b)* of the Company Disclosure Letter identifies each Company Permit related to clinical trial data. The Company is in compliance with the terms of the Company Permits. No action, proceeding, revocation proceeding, amendment procedure, writ, injunction or claim is pending or, to the Knowledge of the Company, threatened, which seeks to revoke, limit, suspend or materially modify any Company Permit. The rights and benefits of each Company Permit will be available to the Surviving Corporation immediately after the Merger Effective Time on terms substantially identical to those enjoyed by the Company as of the date of this Agreement and immediately prior to the Merger Effective Time.

(c) There are no proceedings pending or, to the Company s Knowledge, threatened with respect to an alleged violation by the Company of the Federal Food, Drug, and Cosmetic Act (the *FDCA*), the Food and Drug Administration (the *FDA*) regulations adopted thereunder, the Controlled Substances Act or any other similar Legal Requirements promulgated by the FDA or other comparable Governmental Entity responsible for regulation of the development, clinical testing, manufacturing, sale, marketing, distribution and importation or exportation of drug products (each, a *Drug Regulatory Agency*).

(d) The Company and its collaboration partners hold all Permits issuable by any Drug Regulatory Agency necessary for the conduct of the business of the Company as conducted since January 1, 2006 and the development, clinical testing, manufacturing, marketing, distribution and importation or exportation (the *Company Regulatory Permits*) of any of its products or product candidates which it has attempted to develop since January 1, 2006 (the *Company Product Candidates*) and each such Company Regulatory Permit is in full force and effect. The Company and its collaboration partners have fulfilled and performed all of their respective obligations with respect to the Company Regulatory Permits, and are otherwise in compliance in all material respects with the Company Regulatory Permits. Neither the Company nor any of its collaboration partners (including any clinical research organization or other comparable service provider) has received any written notice or other written communication from any Drug Regulatory Agency regarding (A) any actual or possible violation of or failure to comply with any term or requirement of any Company Regulatory Permit or (B) any actual or possible revocation, withdrawal, suspension, cancellation, termination or material modification of any Company Regulatory Permit, and no event has occurred which allows, or after notice or lapse of time to cure would allow, any Drug Regulatory Agency to take any of the foregoing actions. The Company has Made Available to Parent all material information in its possession or control relating to the clinical Company Product Candidates (including any information provided to the Company by the Company s collaboration partners) and the development, clinical testing, manufacturing, importation and exportation of the clinical Company Product Candidates by the Company and its collaboration partners, including complete and correct copies of the following (to the extent there are any): (x) serious adverse event reports; clinical study reports and material study data; material inspection reports, notices of adverse findings, warning letters, filings and letters and other material correspondence to and from any Drug Regulatory Agency and the Company and its collaboration partners; and related meeting minutes with any Drug Regulatory Agency; and (y) similar material reports, study data, notices, letters, filings, correspondence and meeting minutes among the Company, its collaboration partners and any other Governmental Entity.

(e) To the Company s Knowledge, since January 1, 2006, all pre-clinical trials conducted by or on behalf of, or sponsored by, the Company or in which the Company or the Company Product Candidates have participated, either (i) have been conducted in accordance, in all material respects, with applicable Good Laboratory Practice (*GLP*) requirements, including those contained in 21 C.F.R. Part 58 or (ii) involved experimental research techniques that were not required to be performed by a registered GLP testing laboratory (with appropriate notice being given to the FDA or the applicable Governmental Entity).

(f) To the Company s Knowledge, since January 1, 2006, all clinical trials conducted by or on behalf of, or sponsored by, the Company or in which the Company or the Company Product Candidates have

participated were being conducted in material compliance with the applicable regulations of the Drug Regulatory Agency and other applicable Legal Requirements, including 21 C.F.R. Parts 50, 54, 56, 58 and 312. Except as set forth on *Section 2.8(f)* of the Company Disclosure Letter, no investigational new drug application filed by the Company or, to the Company s Knowledge, one of its collaboration partners with the FDA for the Company Product Candidates has been terminated or suspended by the FDA, and neither the FDA nor any applicable foreign Governmental Entity has commenced, or, to the Company s Knowledge, threatened to initiate, any action to place a clinical hold order on, or otherwise terminate, materially delay, suspend, any proposed or ongoing clinical investigation conducted or proposed to be conducted by the Company or, to the Company s Knowledge, its collaboration partners.

(g) All applications, notifications, submissions, information, claims, reports and statistics, and other data and conclusions derived therefrom, utilized as the basis for or submitted in connection with any and all requests for a Company Regulatory Permit from the FDA or other Governmental Entity relating to the Company, its business and the Company Product Candidates, when submitted to the FDA or other Governmental Entity, did not contain any materially false or misleading information, any materially false statements or any material omissions, and any necessary or required updates, changes, corrections or modification to such applications, submissions, information and data have been submitted to the FDA or other Governmental Entity.

2.9. *Litigation*. There are no claims, suits, actions, judgments or proceedings pending, or threatened in writing delivered to the Company, against the Company before any court, governmental department, commission, agency, instrumentality or authority, or any arbitrator.

2.10. *Brokers and Finders Fees*. Except for fees payable to RBC Capital Markets Corporation (*RBC*) pursuant to an engagement letter dated January 13, 2009, and as amended on March 20, 2009, April 23, 2009 and June 3, 2009 (the *RBC Agreement*), a copy of which has been Made Available to Parent, the Company has not incurred, nor will it incur, directly or indirectly, any liability for brokerage or finders fees or agents commissions or any similar charges in connection with this Agreement or any transaction contemplated hereby, and the Company has not entered into any indemnification agreement or arrangement with any Person in connection with this Agreement and the transactions contemplated hereby other than pursuant to the RBC Agreement.

2.11. *Transactions with Affiliates*. Since January 1, 2009, no event has occurred as of the date hereof that would be required to be reported by the Company pursuant to Item 404 of Regulation S-K promulgated by the SEC that was not so reported. *Section 2.11* of the Company Disclosure Letter identifies each Person who is an affiliate (for purposes of Rule 145 promulgated under the Securities Act) of the Company as of the date hereof.

2.12. *Employee Benefit Plans*.

(a) *Schedule*. *Section 2.12(a)(i)* of the Company Disclosure Letter sets forth a correct and complete list of each material plan, program or agreement providing for compensation, severance, termination pay, deferred compensation, performance awards, stock or stock-related awards, fringe benefits or other employee benefits or remuneration of any kind, whether written or unwritten, funded or unfunded (it being understood and agreed that any plan, program or agreement providing severance, termination pay, deferred compensation or stock or stock-related awards shall be deemed material), which, in the case of any of the aforementioned plans, programs or agreements is maintained, contributed to, or required to be contributed to, by the Company or any Controlled Group Affiliate (as defined in *Section 2.12(e)*) for the benefit of any current or former Employee, consultant or director (each, an *Employee*) of the Company or any Controlled Group Affiliate (each such plan, program and agreement, a *Company Employee Plan*), or with respect to which the Company or any Controlled Group Affiliate has or may have any liability or obligation, and each material management, employment, severance, consulting, relocation, repatriation, expatriation or other agreement or contract between the Company or any Controlled Group Affiliate and any Employee (each, an *Employee Agreement*). Except as set forth on *Section 2.12(a)(ii)* of the Company Disclosure Letter,

neither the Company nor any Controlled Group Affiliate has any plan or commitment to establish any new Company Employee Plan or Employee Agreement, to modify any Company Employee Plan or Employee Agreement or to adopt or enter into any Company Employee Plan or Employee Agreement.

(b) *Documents*. The Company has Made Available to Parent for review (to the extent applicable) the current plan document for each Company Employee Plan and Employee Agreement the most recent annual report (Form 5500 and schedules) for each applicable Company Employee Plan, the current Summary Plan Description (within the meaning of Section 104 of ERISA) for each applicable Company Employee Plan, the most recent Internal Revenue Service determination letter for each applicable Company Employee Plan and any documentation relating to any Company Employee Plans and Employee Agreements, including any correspondence or filings that must be made with any Governmental Entities.

(c) *Benefit Plan Compliance*. Each Company Employee Plan has been administered and operated in accordance with its terms, with the applicable provisions of ERISA, the Code and all other applicable Legal Requirements and the terms of all applicable collective bargaining agreements. Each Company Employee Plan can be amended, terminated or otherwise discontinued after the Merger Effective Time in accordance with its terms, without material liability to Parent, Company or any of its Controlled Group Affiliates (other than ordinary administration expenses or the payment of vested benefits thereunder). There is no potential liability arising from such administration of the Company Employee Plans or the provision of benefits to Employees arising from ERISA, the Code, COBRA or any other Legal Requirements.

(d) *Plan Funding*. With respect to the Company Employee Plans, there are no benefit obligations for which contributions have not been timely made or properly accrued and there are no material benefit obligations which have not been accounted for by reserves, or otherwise properly footnoted in accordance with the requirements of GAAP, on the financial statements of the Company.

(e) *No Pension or Welfare Plans*. Neither the Company nor any other person or entity that is, or at any relevant time was, under common control within the meaning of Section 414 of the Code (a *Controlled Group Affiliate*) with the Company has ever maintained, established, sponsored, participated in or contributed to, any (i) Company Employee Plan which is or was subject to Title IV of ERISA or Section 412 of the Code, (ii) multiemployer plan (as defined in Section 4001(a)(3) of ERISA), (iii) multiple employer plan within the meaning of Section 210 of ERISA or subject to Section 413(c) of the Code, or (iv) welfare benefit fund within the meaning of Section 419 of the Code. No Company Employee Plan provides health benefits that are not fully insured through an insurance contract.

(f) *Continuation Coverage*. Except as set forth in *Section 2.12(f)* of the Company Disclosure Letter, no Company Employee Plan or Employee Agreement provides post-termination or retiree welfare benefits (whether or not insured), with respect to any person for any reason (other than coverage mandated by applicable Legal Requirements) and neither the Company nor any Controlled Group Affiliate has ever represented, promised or contracted (whether in oral or written form) to any of their Employees that such Employees would be provided with post-termination or retiree welfare benefits, except to the extent required by applicable Legal Requirements.

(g) *Effect of Transaction*. Except as set forth on *Section 2.12(g)(i)* of the Company Disclosure Letter, the execution of this Agreement and the consummation of the transactions contemplated hereby will not (either alone or upon the occurrence of any additional or subsequent events) constitute an event under any Company Employee Plan or Employee Agreement that will or may result in any material payment (whether of severance pay or otherwise), acceleration of payment, forgiveness of indebtedness, vesting, distribution, increase in benefits or obligation to fund benefits with respect to any Employee of the Company. No payment or benefit which will or may be made by reason of the consummation of the transactions contemplated by this Agreement to any Employees or any other disqualified individual (as defined in Code Section 280G and the regulations thereunder) will fail to be deductible by reason of the application of Section 280G of the Code. There is no contract, agreement, plan or arrangement to which the Company is a party or by which it is bound to compensate any of their Employees for excise taxes paid pursuant to Section 4999 of the Code.

Table of Contents

(h) *Section 409A*. Each Company Employee Plan, Employee Agreement and other contract, agreement or arrangement to which the Company is a party and that is a nonqualified deferred compensation plan subject to Section 409A of the Code complies in both form and operation with Section 409A of the Code and the guidance and regulations thereunder such that no amounts paid pursuant to any such Company Employee Plan, Employee Agreement, contract, agreement or arrangement is subject to tax under Section 409A of the Code.

(i) *Labor*. No Employees are represented by any union, labor organization or works council with respect to their employment with the Company or involved in activities associated with such entities. There are no actions, suits, claims or grievances pending, or threatened in writing delivered to the Company, or reasonably anticipated relating to any labor, safety or discrimination matters involving any Employee, including charges of unfair labor practices or discrimination complaints. The Company has not engaged in any unfair labor practices within the meaning of the National Labor Relations Act.

(j) *Employment Matters*. The Company is in material compliance with all applicable foreign, federal, state and local laws, rules and regulations respecting employment, employment practices, worker classification, employment tax withholding, prohibited discrimination, fair employment practices, employee safety and health, the payment of wages (including overtime wages), compensation and hours of work, and, with respect to Employees, the Company has no liability to pay any Employee or any Governmental Entity regarding the employment of current or former Employees. There are no (x) actions, suits, claims or administrative matters pending or, to the Company s Knowledge, threatened or reasonably anticipated against the Company, relating to any Employee, Employee Agreement or Company Employee Plan or (y) pending or, to the Company s Knowledge, threatened or reasonably anticipated claims or actions against the Company or any Company trustee under any worker s compensation policy or long-term disability policy. The services provided by each of the Company s Employees are terminable at the will of the Company and any such termination would result in no material liability to the Company.

(k) No Company Employee Plan, Employment Agreement or other contract, agreement, plan or arrangement to which the Company is a party, covering any Employee of the Company, shall, individually or collectively, give rise to the payment of any amount by the Company which would be nondeductible pursuant to Section 162(m) of the Code.

(l) The Company has, for purposes of each Company Employee Plan and for all other purposes, correctly classified all individuals performing services for the Company as common law employees, independent contractors or agents, as applicable.

(m) There are no pending audits or investigations by any governmental agency involving any Company Employee Plan, and no threatened or pending claims (except for individual claims for benefits payable in the normal operation of the Company Employee Plans), suits or proceedings involving any Company Employee Plan, any fiduciary thereof or service provider thereto, nor to the best knowledge of the Company is there any reasonable basis for any such claim, suit or proceeding.

2.13. *Title to Properties; Use and Access.*

(a) *Properties*. The Company does not own and has not owned since inception any real property. *Section 2.13(a)* of the Company Disclosure Letter sets forth a list of all real property currently leased by the Company (the *Leased Real Property*), the name of the lessor, the date of the lease and each amendment thereto, in each case, as of the date hereof (the *Leases*). All such Leases are in full force and effect, are valid and effective in accordance with their respective terms, and there is not, under any of such Leases, any existing default or event of default (or event which with notice or lapse of time, or both, would constitute a default). There are no other parties occupying, or with a right to occupy, the Leased Real Property other than the Company. The Company has Made Available to Parent a true and correct copy of each of the Leases, each as amended or amended and restated.

(b) *Valid Title*. The Company has good and valid title to, or, in the case of leased properties and assets, valid leasehold interests in, all of its material tangible properties and assets, real, personal and mixed, used or held for use in its business, free and clear of any Liens (other than Permitted Liens).

Table of Contents

(c) *Use and Access*. To the Knowledge of the Company, the Company has all ownership, license of other necessary rights to its tangible properties and assets, real, personal and mixed that are required and necessary for the operation of the business of the Company as currently conducted. No material default or breach exists under any of the covenants, conditions, restrictions, Liens, rights-of-way or easements, if any, affecting all or portions of its tangible properties and assets.

2.14. *Environmental Matters*. The Company (i) is in compliance in all material respects with any and all applicable foreign, federal, state and local laws and regulations relating to the protection of human health and safety, including those relating to occupational safety and health, the environment or hazardous or toxic substances or wastes, pollutants or contaminants, including those relating to the storage, handling or transportation of hazardous or toxic materials (collectively, *Environmental Laws*) and (ii) is in compliance in all material respects with all terms and conditions of any permit, license or approval held by the Company and required by any Environmental Law. The Company is not liable for any costs or liabilities associated with Environmental Laws (including any capital or operating expenditures required for clean-up, closure of properties or compliance with Environmental Laws or any permit, license or approval related thereto, or any related constraints on operating activities and any potential liabilities to third parties).

2.15. *Contracts*.

(a) *Schedule*. *Section 2.15(a)* of the Company Disclosure Letter sets forth a list as of the date of this Agreement of all Company Scheduled Contracts to which the Company is a party or is bound by as of the date hereof.

(b) *No Breach*. All Company Scheduled Contracts are valid and in full force and effect except to the extent they have previously expired in accordance with their terms or if the failure to be in full force and effect, individually or in the aggregate, would not reasonably be expected to be material to the Company. The Company has not violated any provision of, or committed or failed to perform any act which, with or without notice, lapse of time or both would constitute a default under the provisions of, any Company Scheduled Contract, except in each case for those violations and defaults which, individually or in the aggregate, would not reasonably be expected to have a Company Material Adverse Effect.

2.16. *Disclosure.* None of the information supplied or to be supplied by or on behalf of the Company for inclusion or incorporation by reference in the registration statement on Form S-4 (or similar successor form) to be filed with the SEC by Parent in connection with the issuance of the Convertible Notes and the Parent Common Stock into which the Convertible Notes are convertible (including any amendments or supplements thereto) (the *Registration Statement*) will, at the time the Registration Statement becomes effective under the Securities Act, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they are made, not misleading. None of the information supplied or to be supplied by or on behalf of the Company for inclusion or incorporation by reference in the proxy statement/prospectus to be filed with the SEC as part of the Registration Statement and sent to the stockholders of the Company in connection with the Company Stockholders Meeting (such proxy statement/prospectus, as amended or supplemented, is referred to herein as the *Proxy Statement/Prospectus*), will, at the time the Proxy Statement/Prospectus is mailed to the stockholders of the Company, at the time of the Company Stockholders Meeting or as of the Merger Effective Time, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they are made, not misleading. The Proxy Statement will comply as to form in all material respects with the provisions of the Exchange Act and the rules and regulations promulgated by the SEC thereunder at the time the Proxy Statement is mailed to the stockholders of the Company, at the time of the Company Stockholders Meeting and as of the Merger Effective Time. The representations and warranties contained in this *Section 2.16* do not and will not apply to statements included in the Proxy Statement or the Registration Statement based upon information supplied by Parent or Merger Sub for use or incorporation by reference therein (or statements regarding Parent or Merger Sub which were required to have been included by Parent or Merger Sub in the Proxy Statement or the Registration Statement and which were omitted from the information supplied by Parent or Merger Sub).

Table of Contents

2.17. *Board Approval*. The Board of Directors of the Company has, by resolutions duly adopted at a meeting of the Board of Directors of the Company duly called and held and not subsequently rescinded or modified in any way prior to the date hereof, duly and unanimously (i) determined that the Merger is fair to, and in the best interests of, the Company and its stockholders and declared the Merger to be advisable, (ii) approved this Agreement and the transactions contemplated hereby, including the Merger, and (iii) recommended that the stockholders of the Company adopt this Agreement and directed that such matter be submitted to the Company s stockholders at a meeting called for such purpose (the *Company Stockholders Meeting*).

2.18. *Fairness Opinion*. The Company has received the written opinion of its financial advisor RBC Capital Markets Corporation dated August 20, 2009, that, as of the date of such opinion and subject to the assumptions, qualifications and limitations set forth therein, the Merger Consideration was fair, from a financial point of view, to the holders of Company Common Stock.

2.19. *Takeover Statutes; Company Rights Agreement*.

(a) The action of the Board of Directors of the Company in approving this Agreement and the Merger is sufficient to render inapplicable to this Agreement and the Merger the restrictions on business combinations contained in Section 203 of the DGCL.

(b) The Company Rights Agreement has been amended so that: (i) Parent, Merger Sub and any Subsidiary of Parent will not be included in the definition of Acquiring Person contained in the Company Rights Agreement by reason of the execution of this Agreement or the consummation of the transactions contemplated hereby, including the Merger, and no Shares Acquisition Date or Distribution Date or Transaction (as such terms are defined in the Company Rights Agreement) will occur as a result of the execution of this Agreement or the consummation of the transactions contemplated hereby, including the Merger; and (ii) the Company Rights Agreement will terminate and the Company Rights will expire immediately prior to the Merger Effective Time. The Company Rights Agreement, as so amended, has not been further amended or modified. The Company has previously Made Available a true and complete copy of the Company Rights Agreement and all amendments thereto to Parent.

2.20. *Marketable Securities*. Between June 30, 2009 and the date of this Agreement, the Company has not purchased, or otherwise acquired for value, any marketable securities, including corporate debt securities, federal agency obligations, asset-backed securities, auction-rate securities, U.S. treasuries, and municipal bonds.

2.21. *No Other Parent Representations*. The Company represents and acknowledges that it has conducted, to its satisfaction, an independent investigation and verification of the financial statements, results of operations, assets, liabilities, properties, products, employees and past and current operations of Parent and, in making its determination to enter into this Agreement and consummate the Merger, the Company is relying and has relied only on the results of its own independent investigation and verification, and the representations and warranties of the Parent Parties expressly and specifically set forth in *Article III*. The Company represents and acknowledges that the representations and warranties of the Parent Parties set forth in *Article III* constitute the sole and exclusive representations and warranties to the Company in connection with the Merger, and the Company understands, acknowledges and agrees that all other representations and warranties of any kind or nature, express or implied, are specifically disclaimed by the Parent Parties.

ARTICLE III

REPRESENTATIONS AND WARRANTIES OF PARENT PARTIES

Except as disclosed in writing in the disclosure letter (which letter shall in each case specifically identify by reference to sections of this Agreement any exceptions to each of the representations, warranties and covenants contained in this Agreement) supplied by the Parent Parties to the Company dated as of the date hereof and certified by a duly authorized executive officer of each of the Parent Parties attached hereto as *Exhibit D* (the

Table of Contents

Parent Disclosure Letter), provided that disclosure in any section of the Parent Disclosure Letter shall be deemed to have been set forth in all other applicable sections of the Parent Disclosure Letter where the applicability of such disclosure is reasonable apparent to such other sections notwithstanding the omission of any cross-reference in the Parent Disclosure Letter to such other sections, the Parent Parties represent and warrant to the Company as follows:

3.1. *Organization; Standing and Power; Charter Documents*.

(a) *Parent Incorporation; Standing and Power*. Parent (i) is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware, (ii) has the requisite power and authority to own, lease and operate its properties and to carry on its business as now being conducted and (iii) is duly qualified or licensed and in good standing to do business in each jurisdiction in which the nature of its business or the ownership or leasing of its properties makes such qualification or licensing necessary, other than in such jurisdictions where the failure to so qualify or to be in good standing, individually or in the aggregate, would not reasonably be expected to have a Parent Material Adverse Effect.

(b) *Merger Sub Incorporation; Standing and Power*. Merger Sub (i) is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware, (ii) has the requisite power and authority to own, lease and operate its properties and to carry on its business as now being conducted and (iii) is duly qualified or licensed and in good standing to do business in each jurisdiction in which the nature of its business or the ownership or leasing of its properties makes such qualification or licensing necessary, other than in such jurisdictions where the failure to so qualify or to be in good standing, individually or in the aggregate, would not reasonably be expected to have a Parent Material Adverse Effect.

(c) *Charter Documents*. Parent has delivered or made available to the Company a true and correct copy of (i) the Certificate of Incorporation (including all Certificates of Designations) and the Bylaws of Parent, each as amended to date (collectively, the *Parent Charter Documents*) and (ii) the certificate of incorporation and bylaws, or like organizational documents of Merger Sub (collectively, the *Merger Sub Charter Documents*), and each such instrument is in full force and effect. The Parent is not in violation of any of the provisions of the Parent Charter Documents and Merger Sub is not in violation of any of the provisions of Merger Sub Charter Documents.

3.2. *Capital Structure*.

(a) *Capital Stock*.

(i) The authorized capital stock of Parent consists of: (i) 30,000,000 shares of Parent Common Stock, par value $0.001 per share, and (ii) 500,000 shares of preferred stock, par value $0.001 per share (the *Parent Preferred Stock*). As of the date hereof: (i) 12,076,103 shares of Parent Common Stock are issued and outstanding, excluding shares of Parent Common Stock held by Parent in its treasury, (ii) 66,235 shares of Parent Common Stock are issued and held by Parent in its treasury, and (iii) no shares of Parent Preferred Stock are issued and outstanding.

(ii) All of the outstanding shares of capital stock of Parent are, and all shares of capital stock of Parent which may be issued as contemplated or permitted by this Agreement will be, when issued, duly authorized and validly issued, fully paid and non-assessable and not subject to any preemptive rights.

(b) *Stock Options*.

(i) As of the date hereof: (i) 2,390,266 shares of Parent Common Stock are subject to issuance pursuant to outstanding options to purchase Parent Common Stock (the *Parent Options*) under Parent s Amended and Restated 2004 Stock Incentive Plan and 2000 General Stock Incentive Plan (the *Parent Stock Plans*), (ii) no shares of Parent Common Stock are subject to issuance pursuant to outstanding warrants to purchase Parent Common Stock (the *Parent Warrants*), and (iii) 1,779,024 shares of Parent Common Stock are reserved for future issuance pursuant to Parent Options available for grant under the Parent Stock Plans and for the Parent Warrants. Parent previously declared a

Table of Contents

dividend distribution of one authorized associated preferred share purchase right (a *Parent Right*) pursuant to the Rights Agreement between the Company and American Stock Transfer & Trust Co. LLC, dated November 24, 2006. There are no outstanding or authorized stock appreciation, phantom stock or other similar rights (whether payable in stock, cash or other property) with respect to Parent, except for the Parent Options, the Parent Warrants and the Parent Rights.

(ii) All shares of Parent Common Stock subject to issuance as aforesaid, upon issuance on the terms and conditions specified in the instruments pursuant to which they are issuable, would be duly authorized, validly issued, fully paid and non-assessable.

(c) *Voting Debt*. No Voting Debt of Parent is issued or outstanding as of the date hereof.

(d) *Other Securities*.

(i) Except as otherwise set forth in *Section 3.2(a)(i)* and *Section 3.2(b)(i)* of the Parent Disclosure Letter, as the date hereof, there are no securities, options, warrants, calls, rights, contracts, commitments, agreements, instruments, arrangements, understandings, obligations or undertakings of any kind to which Parent is a party or by which Parent is bound obligating it to (including on a deferred basis) issue, deliver or sell, or cause to be issued, delivered or sold, additional shares of capital stock, Voting Debt or other voting securities of Parent, or obligating Parent to issue, grant, extend or enter into any such security, option, warrant, call, right, commitment, agreement, instrument, arrangement, understanding, obligation or undertaking.

(ii) All outstanding shares of Parent Common Stock and all outstanding Parent Options have been issued and granted in compliance in all material respects with (i) all applicable securities laws and all other applicable Legal Requirements and (ii) all requirements set forth in applicable material Contracts.

(e) *Merger Sub Capital Stock*. The authorized capital stock of Merger Sub consists of 1,000 shares of common stock, par value $0.001 per share, of which 1,000 shares are issued and outstanding. Parent is the sole stockholder of Merger Sub and is the legal and beneficial owner of all 1,000 issued and outstanding shares. Merger Sub was formed solely for purposes of effecting the Merger and the other transactions contemplated hereby. Except as contemplated by this Agreement, Merger Sub does not hold, nor has it held, any material assets or incurred any material liabilities nor has Merger Sub carried on any business activities other than in connection with the Merger and the transactions contemplated by this Agreement. All of the outstanding shares of capital stock of Merger Sub have been duly authorized and validly issued, and are fully paid and non-assessable and not subject to any preemptive rights.

3.3. *Authority; Non-Contravention; Necessary Consents.*

(a) *Authority*. Each of Parent and Merger Sub has all requisite corporate power and authority to enter into this Agreement, subject to the approval of the issuance of the Convertible Notes by the affirmative vote of the holders of a majority of the outstanding shares of Parent Common Stock (the *Required Parent Stockholders*), and to consummate the transactions contemplated hereby. The execution and delivery of this Agreement and the consummation of the transactions contemplated hereunder have been duly authorized by all necessary corporate action on the part of Parent and Merger Sub and no other corporate proceedings on the part of Parent or Merger Sub are necessary to authorize the execution and delivery of this Agreement or to consummate the Merger and the other transactions contemplated hereby, subject only to the adoption of this Agreement and approval of the issuance of the Convertible Notes contemplated hereunder by the Required Parent Stockholders and the filing of the Certificate of Merger pursuant to the DGCL. The affirmative vote of the Required Parent Stockholders is the only vote of the holders of any class or series of Parent capital stock necessary to adopt this Agreement and approve the issuance of the Convertible Notes contemplated hereby. This Agreement has been duly executed and delivered by the Parent Parties and, assuming due authorization, execution and delivery by the Company constitutes a valid and binding obligation of the Parent Parties, enforceable against the Parent Parties in accordance with their terms except as such enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws relating to or affecting creditors generally.

(b) *Non-Contravention*. The execution and delivery of this Agreement by the Parent Parties do not, and the performance of this Agreement by the Parent Parties, will not: (i) assuming the Require Parent Stockholders adopt this Agreement and the issuance of the Convertible Notes contemplated hereunder, conflict with or violate the Parent Charter Documents or Merger Sub Charter Documents, as applicable, (ii) subject to obtaining the adoption of this Agreement and the approval of the issuance of the Convertible Notes contemplated hereunder by Parent s stockholders as contemplated in *Section 5.2* of this Agreement and compliance with the requirements set forth in *Section 3.3(c)*, conflict with or violate any Legal Requirements applicable to the Parent Parties or by which either of the Parent Parties or any of their respective properties is bound or affected or (iii) result in any breach of or constitute a default (or an event that with notice or lapse of time or both would become a default) under, or impair either of the Parent Parties rights or alter the rights or obligations of any third party under, or give to others any rights of termination, amendment, acceleration or cancellation of, or result in the creation of a Lien (other than any Permitted Lien) on any of the properties or assets of Parent pursuant to, any Contract to which Parent is a party except, as to clauses (ii) and (iii), respectively, for any such conflicts, violations, breaches, defaults or other occurrences which would not, individually or in the aggregate, reasonably be expected to have a Parent Material Adverse Effect. *Section 3.3(b)* of the Parent Disclosure Letter lists all consents, waivers and approvals under any of Parent s or its Subsidiaries Contracts required to be obtained in connection with the consummation of the transactions contemplated hereby, which, if individually or in the aggregate not obtained, would result in a Parent Material Adverse Effect.

(c) *Necessary Consents*. No consent, approval, order or authorization of, or registration, declaration or filing with any Governmental Entity is required to be obtained or made by Parent or Merger Sub in connection with the execution and delivery of this Agreement or the consummation of the Merger and other transactions contemplated hereby, except for: (i) the filing of the Certificate of Merger with the Secretary of State of the State of Delaware and appropriate documents with the relevant authorities of other states in which the Company and/or Parent are qualified to do business, (ii) the filing of the Proxy Statement/Prospectus with the SEC in accordance with the Exchange Act and the effectiveness of the Registration Statement, in which the Proxy Statement/Prospectus will be included, (iii) such consents, approvals, orders, authorizations, registrations, declarations and filings as may be required under applicable federal, foreign and state securities (or related) laws and satisfaction of such other requirements of the comparable applicable Legal Requirements of other jurisdictions, (iv) such consents, approvals, orders, authorizations, registrations, declarations and filings as may be required under applicable state securities or blue sky laws and the securities laws of any foreign country and (v) such other consents, orders, authorizations, filings, declarations, approvals and registrations which if not obtained or made would materially adversely affect the ability of the parties hereto to consummate the Merger within the time frame in which the Merger would otherwise be consummated in the absence of the need for such consent, approval, order, authorization, registration, declaration or filings.

3.4. *SEC Filings; Financial Statements.*

(a) *SEC Filings*. Except as disclosed in *Section 3.4(a)* of the Parent Disclosure Letter, Parent has filed all required registration statements, prospectuses, reports, schedules, forms, statements and other documents (including exhibits and all other information incorporated by reference) required to be filed by it with the SEC since January 1, 2006 (the *Parent SEC Reports*). As of their respective dates, or, if amended or supplemented prior to the date of this Agreement, as of the date of such amendment or supplement, each Parent SEC Report (i) complied in all material respects with the requirements of the Securities Act, or the Exchange Act, as the case may be, and the rules and regulations of the SEC promulgated thereunder applicable to such Parent SEC Reports and (ii) did not at the time it was filed (or became effective in the case of a registration statement), or if amended, supplemented or superseded by a filing prior to the date of this Agreement then on the date of such superseding filing, amendment or supplement, contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading.

Table of Contents

(b) *Financial Statements*. Each of the consolidated financial statements (including, in each case, any related notes thereto) contained in the Parent SEC Reports (the *Parent Financials*), as amended or supplemented prior to the date of this Agreement, if applicable, including each Parent SEC Report filed after the date hereof until the Closing: (i) was prepared in accordance with GAAP applied on a consistent basis throughout the periods involved (except as may be indicated in the notes thereto or, in the case of unaudited interim financial statements, as may be permitted by the SEC on Form 10-Q under the Exchange Act), and (ii) fairly presented in all material respects the consolidated financial position of Parent and its consolidated Subsidiaries as at the respective dates thereof and the consolidated results of Parent s operations and cash flows for the periods indicated, except that the unaudited interim financial statements were or are subject to normal year end adjustments which were not, or are not expected to be, material in amount to Parent and its Subsidiaries, taken as a whole. Except as disclosed in the Parent Financials, neither Parent nor any of its Subsidiaries has any liabilities (absolute, accrued, contingent or otherwise) of a nature required to be reflected or reserved against on a consolidated balance sheet or in the related notes to the consolidated financial statements prepared in accordance with GAAP, except for liabilities or obligations (1) under this Agreement or incurred in connection with the transactions contemplated hereby, (2) incurred in the ordinary course of business since March 31, 2009, or (3) that would not, individually or in the aggregate, reasonably be expected to have a Parent Material Adverse Effect.

3.5. *Absence of Certain Changes or Events*. Since the date of the Parent Balance Sheet, there has not been any Parent Material Adverse Effect. During the period from the date of the Parent Balance Sheet to the date hereof, there has not been: (i) any declaration, setting aside or payment of any dividend on, or other distribution (whether in cash, stock or property) in respect of, any of Parent s capital stock, or any purchase, redemption or other acquisition by Parent of any of Parent s capital stock or any other securities of Parent or any options, warrants, calls or rights to acquire any such shares or other securities except for repurchases from Employees following their termination pursuant to the terms of their pre-existing stock option or purchase agreements, or (ii) any split, combination or reclassification of any of Parent s capital stock.

3.6. *Compliance*. Parent is not in default or in violation of, any Legal Requirement applicable to Parent or by which Parent or any of its business or properties is, or Parent believes is reasonably likely to be, bound or affected, or any material Contract, permit, franchise or other instrument or obligation to which Parent is a party or by which Parent or any of its business or properties is bound or affected except for those defaults or violations that would not, individually or in the aggregate, reasonably be expected to have a Parent Material Adverse Effect. No material investigation or review by any Governmental Entity is pending or, to the Knowledge of Parent, has been threatened, against Parent. There is no judgment, injunction, order or decree binding upon Parent which has or would reasonably be expected to have the effect of prohibiting or materially impairing any business practice of Parent, any acquisition of material property by Parent or the conduct of business by Parent as currently conducted, except as would not have a Parent Material Adverse Effect.

3.7. *Litigation*. There are no claims, suits, actions, judgments or proceedings pending or, to the Knowledge of Parent, threatened against Parent, before any court, governmental department, commission, agency, instrumentality or authority, or any arbitrator that seeks to (a) restrain or enjoin the consummation of the transactions contemplated hereby or (b) which would reasonably be expected, either singularly or in the aggregate with all such claims, actions, judgments or proceedings, to have a Parent Material Adverse Effect.

3.8. *Brokers and Finders Fees*. Except for fees payable to Ladenburg Thalman & Co. Inc. (*Ladenburg*) pursuant to an engagement letter dated June 29, 2009 (the *Ladenburg Agreement*), Parent has not incurred, nor will it incur, directly or indirectly, any liability for brokerage or finders fees or agents commissions or any similar charges in connection with this Agreement or any transaction contemplated hereby based on actions taken by or on behalf of Parent, and Parent has not entered into any indemnification agreement or arrangement with any Person in connection with this Agreement and the transactions contemplated hereby other than pursuant to the Ladenburg Agreement.

3.9. *Disclosure*. None of the information supplied or to be supplied by or on behalf of Parent or Merger Sub for inclusion or incorporation by reference in the Registration Statement will, at the time the Registration

Table of Contents

Statement becomes effective under the Securities Act, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they are made, not misleading. None of the information supplied or to be supplied by or on behalf of Parent or Merger Sub for inclusion or incorporation by reference in the Proxy Statement/Prospectus will, at the time the Proxy Statement/Prospectus is mailed to the stockholders of the Company, at the time of the Company Stockholders Meeting or as of the Merger Effective Time, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they are made, not misleading. The Proxy Statement/Prospectus will comply as to form in all material respects with the provisions of the Exchange Act and the rules and regulations promulgated by the SEC thereunder at the time the Proxy Statement/Prospectus is mailed to the stockholders of the Company and Parent, at the time of the Company Stockholders Meeting and the time of the Parent Stockholders Meeting and as of the Merger Effective Time. The representations and warranties contained in this *Section 3.9* do not and will not apply to statements included in or omitted from the Proxy Statement/Prospectus or the Registration Statement based upon information supplied by the Company for use or incorporation by reference therein (or statements regarding the Company which were required to have been included by the Company in the Proxy Statement/Prospectus or the Registration Statement and which were omitted from the information supplied by the Company).

3.10. *Board Approval*. The Board of Directors of Parent, by resolutions duly adopted at a meeting of the Board of Directors of Parent duly called and held and not subsequently rescinded or modified in any way prior to the date hereof, has duly and unanimously (i) determined that the Merger is fair to, and in the best interests of, Parent and its stockholders and declared the Merger to be advisable, (ii) approved this Agreement and the transactions contemplated hereby, including the Merger, and (iii) recommended that the stockholders of Parent approve the issuance of the Convertible Notes and directed that such matter be submitted to Parent s stockholders at a meeting called for such purpose (the *Parent Stockholders Meeting*).

3.11. *Fairness Opinion*. Parent has received the opinion of Ladenburg, financial advisor to Parent, to the effect that, as of the date of such opinion and subject to the assumptions, qualifications and limitations set forth therein, the Merger Consideration is fair from a financial point of view to Parent.

3.12. *Parent Contracts*. All material contracts (as such term is defined in Item 601(b)(1) of Regulation S-K of the SEC) of Parent and its subsidiaries are valid and in full force and effect except to the extent they have previously expired in accordance with their terms or if the failure to be in full force and effect, individually or in the aggregate, would not reasonably be expected to have a Parent Material Adverse Effect. To the Knowledge of Parent, neither Parent nor any of its Subsidiaries is currently in violation of any provision of, or is currently committing or failing to perform any act which, with or without notice, lapse of time or both would constitute a default under the provisions of, any such material contract, except in each case for those violations and defaults which, individually or in the aggregate, would not reasonably be expected to have a Parent Material Adverse Effect. Neither Parent nor any of its Subsidiaries has received any unresolved notification from any counterparty to any such material contract that it is currently in violation of any provision of, or is currently committing or failing to perform any act which, with or without notice, lapse of time or both, would constitute a default under the provisions of, any such material contract.

3.13. *No Other Company Representations*. Parent represents and acknowledges that it has conducted, to its satisfaction, an independent investigation and verification of the financial statements, results of operations, assets, liabilities, properties, products, employees and past and current operations of the Company and, in making its determination to enter into this Agreement and consummate the Merger, Parent is relying and has relied only on the results of its own independent investigation and verification, and the representations and warranties of the Company expressly and specifically set forth in *Article II*. Parent represents and acknowledges that the representations and warranties of the Company set forth in *Article II* constitute the sole and exclusive representations and warranties to Parent in connection with the Merger, and Parent understands, acknowledges and agrees that all other representations and warranties of any kind or nature, express or implied, are specifically disclaimed by the Company.

Table of Contents

ARTICLE IV

CONDUCT BY THE PARTIES PRIOR TO THE MERGER EFFECTIVE TIME

4.1. *Conduct of Business by the Company.*

(a) *Ordinary Course*. During the period from the date hereof and continuing until the earlier of the termination of this Agreement pursuant to its terms or the Merger Effective Time, the Company shall, except as otherwise contemplated by this Agreement, to the extent that Parent shall otherwise consent in writing (including by electronic mail), or as required by applicable Legal Requirements, (i) carry on its business in the usual, regular and ordinary course, in substantially the same manner as heretofore conducted, (ii) pay its material debts and Taxes when due and pay or perform other material obligations when due, in each case except with respect to those being contested in good faith by appropriate proceedings and (iii) use commercially reasonable efforts to (x) preserve substantially intact its current business organization, (y) keep available the services of its current executive officers and Employees and (z) preserve substantially intact its relationships with suppliers, licensors, licensees and others with which it has business dealings.

(b) *Required Consent*. In addition, without limiting the generality of *Section 4.1(a)*, except as permitted by the terms of this Agreement, and except as provided in *Section 4.1* of the Company Disclosure Letter or as required by applicable Legal Requirements or the regulations or requirements of Nasdaq, during the period from the date hereof and continuing until the earlier of the termination of this Agreement pursuant to its terms or the Merger Effective Time, the Company shall not do any of the following without the prior written consent of Parent (including by electronic mail):

(i) Enter into any new line of business;

(ii) Declare, set aside or pay any dividends on or make any other distributions (whether in cash, capital stock, securities or property) in respect of any capital stock or split, combine or reclassify any capital stock or issue or authorize the issuance of any other securities in respect of, in lieu of or in substitution for any capital stock;

(iii) Purchase, redeem or otherwise acquire, directly or indirectly, any shares of its capital stock;

(iv) Issue, deliver, sell, authorize, pledge or otherwise encumber any shares of capital stock, Voting Debt or any securities convertible into shares of capital stock or Voting Debt, or subscriptions, rights, warrants or options to acquire any shares of capital stock or Voting Debt or any securities convertible into shares of capital stock or Voting Debt, or enter into other agreements or commitments of any character obligating it to issue any such securities or rights, other than issuances of Company Common Stock upon the exercise of Company Options, warrants or other rights of the Company existing on the date hereof in accordance with their current terms;

(v) Cause, permit or propose any amendments to the Company Charter Documents;

(vi) Acquire or agree to acquire by merging or consolidating with, or by purchasing any equity or voting interest in or a portion of the assets of, or by any other manner, any business or any Person or division thereof, or otherwise acquire or agree to acquire any assets (other than in the ordinary course of business consistent with past practice);

(vii) Enter into any binding agreement, agreement in principle, letter of intent, memorandum of understanding or similar agreement with respect to any material joint venture, strategic partnership, collaboration, license or alliance;

(viii) Sell, lease, license, encumber or otherwise dispose of any properties or assets (other than in the ordinary course of business consistent with past practice); *provided, however*, that, notwithstanding anything to the contrary contained in this Agreement: (a) the Company may sell, lease, license, encumber or otherwise dispose of its rights to the First Milestone Payment, as defined in the Assignment Agreement dated December 19, 2005, by and between Genzyme Corporation and Company, as amended through the date hereof (the *Genzyme Agreement*), provided no liabilities,

contingent or otherwise, are or may be incurred by the Company pursuant to such disposition; and (b) the Company may sell, lease, license, encumber or otherwise dispose of all of its rights under the Genzyme Agreement, provided that the consideration received by the Company therefor is at least $6,200,000 and that no liabilities, contingent or otherwise, are or may be incurred by the Company pursuant to such disposition;

(ix) Make any loans, advances or capital contributions to, or investments in, any other Person;

(x) Except as required by GAAP, make any material change in its methods or principles of accounting since the date of the Company Balance Sheet;

(xi) Except as required by Tax law or other applicable Legal Requirements, adopt or change any material Tax accounting method, change any Tax accounting period, make, change or revoke any material Tax election, file any amended Tax Return, settle or compromise any material Tax liability or claims, agree to an extension or waiver of the statute of limitations with respect to the assessment or determination of Taxes, enter into any Tax indemnity, Tax allocation or Tax sharing agreement, enter into any private letter ruling, closing agreement or similar ruling or agreement with respect to any Tax or surrender any right to claim a Tax refund; *provided, however*, that if any of the foregoing actions in this *Section 4.1(b)(xi)* is required by any Tax law or other applicable Legal Requirements, the Company shall promptly provide Parent with written notification (including by electronic mail) of such action;

(xii) Amend or modify, or propose to amend or modify, or otherwise take any action under, the Company Rights Agreement except pursuant to the modifications required by this Agreement;

(xiii) Revalue any of its assets or make any change in accounting methods, principles or practices, other than as required by GAAP or by a Governmental Entity;

(xiv) (A) Pay, discharge, settle or satisfy any material claims, liabilities or obligations (absolute, accrued, asserted or unasserted, contingent or otherwise), or litigation (whether or not commenced prior to the date of this Agreement), other than the payment, discharge, settlement, or satisfaction for money, of claims, liabilities, obligations or litigation (x) to the extent subject to reserves on the Company Financials existing as of the date hereof in accordance with GAAP or (y) that are accounts payable incurred in the ordinary course of business for goods and services of claims not in excess of $10,000 individually or $50,000 in the aggregate, or (B) waive the benefits of, agree to modify in any manner materially adverse to the Company, terminate, release any person from or knowingly fail to enforce any material confidentiality or similar agreement to which Company is a party or which Company is a beneficiary;

(xv) Except as required by Legal Requirements or as required by any Company Employee Plan or Employee Agreement in existence as of the date hereof and as set forth in *Section 2.12(a)(i)* or *2.12(a)(ii)* of the Company Disclosure Letter or in accordance with *Section 4.1(a)*, (1) increase in any manner the amount of compensation or fringe benefits of, pay any bonus or special remuneration (cash, equity or otherwise) to or grant severance or termination pay to any Employee, consultant or director of the Company, (2) make any increase in or commitment to increase the benefits payable under or the Company s obligations with respect to any Company Employee Plan or Employee Agreement (including any severance plan), adopt or amend or make any commitment to adopt or amend any Company Employee Plan or Employee Agreement or make any contribution, other than regularly scheduled contributions or contributions required by the terms of the Company Employee Plan as in effect as of the date hereof, to any Company Employee Plan, (3) except as otherwise provided herein, waive any stock repurchase rights, accelerate, amend or change the vesting terms or the period of exercisability of Company Options, or reprice any Company Options or authorize cash payments in exchange for any Company Options, (4) enter into any employment, severance, termination or indemnification agreement with any Employee or enter into any collective bargaining agreement, (5) make any oral or written commitment with respect to any material aspect of any Company

Table of Contents

Employee Plan or Employee Agreement unless such commitment is either in accordance with the existing written terms and provision of such Company Employee Plan or Employee Agreement or in accordance with the provisions of this Agreement, (6) grant any stock appreciation right, phantom stock award, stock-related award or performance award (whether payable in cash, shares or otherwise) to any Person (including any Employee) or (7) enter into any agreement with any Employee the benefits of which are (in whole or in part) contingent or the terms of which are materially altered upon the occurrence of a transaction involving the Company of the nature contemplated hereby;

(xvi) Grant or modify any rights with respect to any Company Intellectual Property;

(xvii) Enter into, or renew, any Contracts;

(xviii) Enter into any agreement or commitment the effect of which would be to grant to a third party following the Merger any actual or potential right of license to any material Intellectual Property owned by Parent (excluding for the avoidance of doubt, the Company);

(xix) Hire Employees;

(xx) Terminate any Employees of the Company or take actions that are reasonably calculated to cause any Employees of the Company to resign, in each case other than (x) in the ordinary course of business or (y) for cause or poor performance (in either case in accordance with the Company s past practices);

(xxi) Make any representations or issue any communications (including electronic communications) to Employees that are inconsistent with this Agreement or the transactions contemplated hereby, including any representations regarding offers of employment or other benefits from Parent;

(xxii) Incur any indebtedness for borrowed money or guarantee any such indebtedness of another Person, issue or sell any debt securities or options, warrants, calls or other rights to acquire any debt securities of the Company, guarantee any debt securities of another Person, enter into any keep well or other agreement to maintain any financial statement condition of any other Person or enter into any arrangement having the economic effect of any of the foregoing;

(xxiii) Make any individual payments in excess of $10,000 or series of related payments in the aggregate in excess of $50,000 outside of the ordinary course of business or make or commit to make any capital expenditures in excess of $10,000 individually or $50,000 in the aggregate, except in each case as otherwise required by a pre-existing contractual obligation;

(xxiv) Modify or amend in a manner adverse in any material respect to the Company, or terminate any Company Scheduled Contract currently in effect, or waive, release or assign any material rights or claims thereunder, in each case, in a manner adverse in any material respect to the Company;

(xxv) Take any action to exempt or make not subject to (i) the provisions of Section 203 of the DGCL; (ii) any other state takeover law or state law that purports to limit or restrict business combinations or the ability to acquire or vote shares or (iii) the Company Rights Agreement, any Person (other than Parent or Merger Sub and any other Subsidiary of Parent) or any action taken thereby, which Person or action would have otherwise been subject to the restrictive provisions thereof and not exempt therefrom;

(xxvi) Enter into any Contract requiring the Company to make any payment in excess of $10,000 individually or $50,000 in the aggregate if the Company were to be dissolved and liquidated;

(xxvii) file a certificate of dissolution; or

(xxviii) Agree in writing or otherwise to take any of the actions described in clauses (i) through (xxvii) above.

Table of Contents

For the avoidance of doubt, and notwithstanding anything to the contrary herein, none of the foregoing restrictions in clauses (i) through (xxviii) above shall in any way limit the Company s ability to perform its obligations under *Section 1.6(b)* of this Agreement.

(c) *Liquidation of Marketable Securities*. The Company covenants and agrees that, from the date of this Agreement and continuing until the earlier of the Merger Effective Time and the termination of this Agreement, it shall use its commercially reasonable efforts to sell and otherwise liquidate for cash all marketable securities, including corporate debt securities, federal agency obligations, asset-backed securities, U.S. treasuries, and municipal bonds, prior to the Merger Effective Time at amounts greater than or equal to the fair market value of such securities; it being understood and agreed that in all cases the Company shall sell and otherwise liquidate for cash all such securities prior to the Merger Effective Time. Parent and Company understand and agree that any breach of this *Section 4.1(c)* shall be deemed a material breach of this Agreement for purposes of Article VII.

(d) *Financial Statements and Options*. The Company covenants and agrees that, from the date of this Agreement and continuing until the earlier of the Merger Effective Time and the termination of this Agreement, within 15 days of the end of each month, it shall provide to Parent monthly unaudited financial statements of the Company, including an unaudited balance sheet and a schedule showing all marketable securities and restricted investments of the Company (on an individual basis). The Company covenants and agrees that, from the date of this Agreement and continuing until the earlier of the Merger Effective Time and the termination of this Agreement, within 15 days of the end of each month and also within three days of the Company Stockholders Meeting, it shall provide to Parent an update to *Section 2.2(a)(i)* of the Company Disclosure Letter.

4.2. *Conduct of Business by Parent*. Parent covenants and agrees that, from the date of this Agreement and continuing until the earlier of the Merger Effective Time and the termination of this Agreement, except as expressly permitted by this Agreement, as set forth in *Section 4.2* of the Parent Disclosure Letter, as required by law or the regulations or requirements of any stock exchange or regulatory organization applicable to Parent, or to the extent the Company shall otherwise consent in writing (which consent shall not be unreasonably withheld, conditioned or delayed), it shall (i) use commercially reasonable efforts to preserve substantially intact its current business organization, (ii) pay its material debts and Taxes when due and pay or perform other material obligations when due, in each case except with respect to those being contested in good faith by appropriate proceedings and (iii) use commercially reasonable efforts to keep available the services of its current executive officers.

ARTICLE V

ADDITIONAL AGREEMENTS

5.1. *Proxy Statement/Prospectus; Registration Statement*.

(a) As promptly as practicable after the execution of this Agreement, Parent and the Company will prepare and file the Proxy Statement/Prospectus, and Parent will prepare and file with the SEC the Registration Statement in which the Proxy Statement/Prospectus will be included as a prospectus. Each of Parent and the Company shall provide promptly to the other such information concerning its business affairs and financial statements as, in the reasonable judgment of the providing party or its counsel, may be required or appropriate for inclusion in the Proxy Statement/Prospectus and the Registration Statement pursuant to this *Section 5.1*, or in any amendments or supplements thereto, and shall cause its counsel and auditors to cooperate with the other s counsel and auditors in the preparation of the Proxy Statement/Prospectus and the Registration Statement. Each of Parent and the Company will respond to any comments from the SEC, and will use all commercially reasonable efforts to cause the Registration Statement to be declared effective under the Securities Act as promptly as practicable, and to keep the Registration Statement effective as long as is necessary to consummate the Merger and the transactions contemplated

Table of Contents

hereby. Each of Parent and the Company shall furnish to each other all information concerning it and the holders of its capital stock as the other party may reasonably request in connection with the preparation of the Proxy Statement/Prospectus and the Registration Statement in which the Proxy Statement/Prospectus will be included. Each of Parent and the Company will notify the other promptly upon the receipt of any comments from the SEC or its staff in connection with the filing of, or amendments or supplements to, the Registration Statement and/or the Proxy Statement/Prospectus. Parent shall promptly inform the Company if, at any time prior to the Merger Effective Time, any event or circumstance relating to Parent, any Subsidiary of Parent or Merger Sub, or any of their respective officers or directors, becomes known to or is otherwise discovered by Parent that should be set forth in an amendment or a supplement to the Proxy Statement/Prospectus or the Registration Statement. Each party shall promptly inform the other party hereto if, at any time prior to the Merger Effective Time, any event or circumstance relating to the Company or Parent becomes known to or is otherwise discovered by such party that should be set forth in an amendment or a supplement to the Proxy Statement/Prospectus or the Registration Statement. Except in connection with any Change in Recommendation in accordance with *Section 5.3(d)* and other than pursuant to Rule 425 of the Securities Act with respect to releases made in compliance with *Section 5.5* of this Agreement, no amendment or supplement to the Proxy Statement/Prospectus or the Registration Statement, nor any response to any comments or inquiry from the SEC with respect to such filings, will be made by the Company or Parent without the approval of the other party, which approval shall not be unreasonably withheld, conditioned or delayed (it being understood that it shall be unreasonable to withhold consent with respect to any amendment or supplement to the Proxy Statement/Prospectus or Registration Statement to the extent such amendment or supplement is required to be included therein so that the Proxy Statement/Prospectus or Registration Statement will not contain an untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in the light of the circumstances under which they are made, not misleading as may be required by Rule 10b-5 or Rule 14a-9 under the Exchange Act or Section 11 or Section 12 of the Securities Act); *provided, however*, that the Company shall not make a Change of Recommendation except in accordance with the terms of *Section 5.3(d)*. The Company and Parent each will advise the other promptly after it receives notice of the time when the Registration Statement has become effective or any supplement or amendment has been filed, of the issuance of any stop order, the suspension of the qualification of the Convertible Notes or the shares of Parent Common Stock issuable thereunder for offering or sale in any jurisdiction, or any request by the SEC for amendment of the Proxy Statement/Prospectus or the Registration Statement or comments thereon and responses thereto or requests by the SEC for additional information. Each of the parties hereto shall cause the Proxy Statement/Prospectus and the Registration Statement to comply as to form and substance as to such party in all material respects with the applicable requirements of (i) the Securities Act, (ii) the Exchange Act and (iii) the rules and regulations of Nasdaq.

5.2. *Meetings of Company Stockholders and Parent Stockholders; Board Recommendations.*

(a) *Meeting of Company Stockholders*. Promptly after the Registration Statement is declared effective by the SEC under the Securities Act, in accordance with *Section 5.1*, the Company will take all action necessary in accordance with the DGCL and the Company Charter Documents to cause the Proxy Statement/Prospectus to be mailed to its stockholders and to call, hold and convene the Company Stockholders Meeting to adopt this Agreement to be held as promptly as practicable. The Company shall ensure that the Company Stockholders Meeting is called, noticed, convened, held and conducted and that all proxies solicited by the Company in connection with the Company Stockholders Meeting, are solicited, in compliance with the DGCL, the Company Charter Documents, the rules of Nasdaq, this Agreement and all other applicable Legal Requirements.

(b) *Meeting of Parent Stockholders*. Promptly after the Registration Statement is declared effective by the SEC under the Securities Act, in accordance with *Section 5.1*, Parent will take all action necessary in accordance with the DGCL and the Parent Charter Documents to cause the Proxy Statement/Prospectus to be mailed to its stockholders and to call, hold and convene the Parent Stockholders Meeting to adopt this Agreement and approve the issuance of the Convertible Notes contemplated hereunder to be held as

promptly as practicable. Parent shall ensure that the Parent Stockholders Meeting is called, noticed, convened, held and conducted and that all proxies solicited by Parent in connection with the Parent Stockholders Meeting are solicited, in compliance with the DGCL, the Parent Charter Documents, the rules of Nasdaq, this Agreement and all other applicable Legal Requirements.

(c) *Adjournment of Company Stockholders Meeting and Parent Stockholders Meeting*. Notwithstanding anything to the contrary contained in this Agreement, the Company and Parent may adjourn or postpone the Company Stockholders Meeting or the Parent Stockholders Agreement, respectively, to the extent necessary to ensure that any necessary supplement or amendment to the Proxy Statement/Prospectus is provided to its stockholders in advance of the vote to be taken at such meeting or, if as of the time for which the Company Stockholders Meeting or Parent Stockholders Meeting is originally scheduled (as set forth in the Proxy Statement/Prospectus) there are insufficient shares of Company Common Stock or Parent Common Stock represented (either in person or by proxy), respectively, to constitute a quorum necessary to conduct the business of the applicable meeting.

(d) *Board Recommendations*.

(i) Subject to *Section 5.3(d)*: (A) the Board of Directors of the Company shall recommend (the *Company Board Recommendation*) that its stockholders vote in favor of adoption of this Agreement at the Company Stockholders Meeting and subject to *Section 5.3(d)*, shall reaffirm (publicly, if so requested) the Company Board Recommendation within ten (10) calendar days after Parent requests in writing that the Board of Directors of Company affirm such recommendation; (B) the Proxy Statement/Prospectus shall include a statement to the effect that the Board of Directors of the Company has made the Company Board Recommendation; and (C) neither the Board of Directors of the Company nor any committee thereof shall withdraw, amend or modify, or publicly propose or resolve to withdraw, amend or modify in a manner adverse to Parent, the Company Board Recommendation.

(ii) (A) The Board of Directors of Parent shall recommend (the *Parent Board Recommendation*) that its stockholders vote in favor of the Merger Agreement and the issuance of the Convertible Notes contemplated thereunder at the Parent Stockholders Meeting and shall reaffirm (publicly, if so requested) the Parent Board Recommendation within ten (10) calendar days after the Company requests in writing that the Board of Directors of Parent affirm such recommendation, (B) the Proxy Statement/Prospectus shall include a statement to the effect that the Board of Directors of Parent has made the Parent Board Recommendation and (C) neither the Board of Directors of Parent nor any committee thereof shall withdraw, amend or modify, or propose or resolve to withdraw, amend or modify in a manner adverse to the Company, the Parent Board Recommendation.

5.3. *Acquisition Proposals*.

(a) *No Solicitation*. (a) From the date hereof until the earlier of the Closing and the date this Agreement is terminated pursuant to *Section 7.1*, except to the extent permitted by this *Section 5.3*, the Company and its directors and officers shall not, and the Company shall instruct its Employees, agents and representatives (including any investment banker, attorney or accountant retained by it) not to, directly or indirectly: (A) (1) initiate, solicit or knowingly encourage (including by way of providing information), (2) engage in any discussions or negotiations with any Third Party regarding, (3) knowingly cooperate with or knowingly assist any Third Party in connection with, or (4) knowingly facilitate, the making by any Third Party of any inquiry, proposal or offer that constitutes or that would reasonably be expected to lead to an Acquisition Proposal from such Third Party; or (B) withdraw or modify the Company Board Recommendation in a manner adverse to Parent. As of the date hereof, the Company shall immediately cease and cause to be terminated any activities conducted theretofore by the Company and its directors, officers, Employees, agents or representatives with respect to any Acquisition Proposal that, if conducted after the date hereof, would otherwise be a violation of this *Section 5.3*. The Company agrees that it will promptly request each Person that has entered into a confidentiality agreement with the Company in connection with its consideration of an Acquisition Proposal to return or destroy all confidential information heretofore

furnished to such Person by or on behalf of the Company, consistent with any confidentiality or nondisclosure agreement entered into between the Company and such Person.

(b) *Notification of Unsolicited Acquisition Proposals*.

(i) The Company shall notify Parent promptly (but in no event later than one Business Day) after it obtains Knowledge of the receipt by the Company (or any of its representatives) of any Acquisition Proposal, any inquiry, offer or proposal that the Company determines in good faith would reasonably be expected to lead to an Acquisition Proposal, or any request for non-public information relating to the Company or for access to the business, properties, assets, books or records of the Company by any Person that relates to an Acquisition Proposal or that the Company determines in good faith would reasonably be expected to lead to an Acquisition Proposal. In such notice, the Company shall identify the Person making, and (if applicable) the material terms and conditions of, any such Acquisition Proposal, inquiry, offer, proposal or request. The Company shall keep Parent reasonably informed, on a reasonably prompt basis, of the status and material terms of any such Acquisition Proposal, inquiry, offer, proposal or request, including (if applicable) any material amendments or proposed amendments as to price and other material terms thereof.

(ii) The Company shall promptly, following a determination by its Board of Directors that an Acquisition Proposal is a Superior Offer, notify Parent of such determination.

(c) *Superior Offers*. Notwithstanding anything to the contrary contained in *Section 5.3(a)*, in the event that the Company receives a bona fide written Acquisition Proposal from a Third Party not solicited in violation of *Section 5.3(a)* that its Board of Directors in good faith concludes (after consultation with its outside legal counsel and its financial advisor), is, or could reasonably be expected to lead to, a Superior Offer, the Company may then take the following actions (but only if the Board of Directors of the Company concludes in good faith, after consultation with outside legal counsel, that the failure to do so could reasonably be expected to result in a breach of its fiduciary obligations under applicable Legal Requirements):

(i) Furnish non-public information to the third party making such Acquisition Proposal, *provided* that (A) (1) within 24 hours of furnishing any such non-public information to such party, the Company gives Parent written notice that it has (or intends to) furnish such non-public information and (2) the Company receives from the third party an executed confidentiality agreement containing standstill terms and limitations on the use and disclosure of information furnished to such third party on the Company s behalf, the terms of which are no less favorable to the Company than those contained in the Confidentiality Agreement and (B) within the same day as furnishing any such non-public information to such third party, the Company furnishes such non-public information to Parent (to the extent such non-public information has not been previously so furnished);

(ii) Engage in discussions or negotiations with the third party with respect to the Acquisition Proposal, *provided* that within 24 hours of entering into discussions or negotiations with such third party, the Company gives Parent written notice that it has (or intends to) enter into discussions or negotiations with such third party; and

(iii) To the extent permitted pursuant to and in compliance with *Article VII* (including *Section 7.3)*, enter into a binding written agreement concerning a transaction that constitutes a Superior Offer.

(d) *Change of Recommendation*.

(i) At any time prior to the adoption of this Agreement by the Required Company Stockholders, the Board of Directors of the Company may take the actions prohibited by clause (i)(C) of *Section 5.2(d)* (and in each case modify accordingly the statement of the Company s Board of Directors included or to be included in the Proxy Statement/Prospectus pursuant to clause (i)(B) of *Section 5.2(d)*) if the Board of Directors of the Company determines in good faith (after consultation

with its outside legal counsel) that the failure to take such action could reasonably be expected to result in a breach of its fiduciary duties under applicable Legal Requirements; *provided*, *however*, that the Company shall have, at least three (3) days prior to taking such action, provided to Parent written notice that shall state that the Company intends to take such action.

(ii) In response to the receipt of a Superior Offer, the Board of Directors of the Company may (A) withhold, withdraw, amend or modify the Company Board Recommendation, (B) approve, endorse or recommend any Acquisition Proposal, (C) to the extent permitted by *Article VII* enter into a binding written agreement concerning an Acquisition Proposal and (D) in the case of a Superior Offer that is a tender or exchange offer made directly to its stockholders, recommend that its stockholders accept the tender or exchange offer (and in each case modify accordingly the statement of the Company s Board of Directors included or to be included in the Proxy Statement/Prospectus pursuant to clause (i)(B) of *Section 5.2(d)*) (any of the foregoing actions in response to the receipt of a Superior Offer, whether by the Board of Directors of the Company or a committee thereof, a *Change of Recommendation*), if all of the following conditions are met:

(1) A Superior Offer has been made and has not been withdrawn;

(2) This Agreement shall not have been adopted at the Company Stockholders Meeting;

(3) The Company shall have (A) at least three (3) days prior to a Change of Recommendation, provided to Parent written notice which shall state (1) that the Company has received such Superior Offer, (2) the material terms and conditions of such Superior Offer and the identity of the Person or group making the Superior Offer and (3) that the Company intends to effect a Change of Recommendation and the manner in which it intends to do so, and (B) complied with its obligations pursuant to *Section 5.3(b)* and *Section 5.3(c)(i)* in connection with such Superior Offer;

(4) The Board of Directors of the Company concludes in good faith, after consultation with its outside legal counsel, that, in light of such Superior Offer, the failure of the Board of Directors to effect a Change of Recommendation could reasonably be expected to result in a breach of fiduciary duties to its stockholders under applicable Legal Requirements; and

(5) The Company shall not have materially breached (directly or indirectly) any of the provisions set forth in *Section 5.2* or this *Section 5.3*, as applicable, with respect to obtaining such Superior Offer and which breach is continuing.

(e) *Continuing Obligation to Call, Hold and Convene Stockholders Meeting; No Other Vote.* Notwithstanding anything to the contrary contained in this Agreement, unless and until this Agreement is terminated by the Company pursuant to *Article VII*: (i) the obligation of the Company to call, give notice of, convene and hold the Company Stockholders Meeting shall not be limited or otherwise affected by the commencement, disclosure, announcement or submission to it of any Acquisition Proposal or by any Change of Recommendation; and (ii) the Company shall not submit to the vote of its stockholders any Acquisition Proposal.

(f) *Compliance with Tender Offer Rules.* Nothing contained in this Agreement shall prohibit the Company or its Board of Directors from taking and disclosing to its stockholders a position contemplated by Rules 14d-9 and 14e-2(a) promulgated under the Exchange Act or from making any communication to the stockholders of the Company pursuant to Rule 14d-9(f) and the Exchange Act; *provided*, *however*, in each case, that the content of any such disclosure shall be governed by the terms of this Agreement. Without limiting the foregoing proviso, the Company shall not effect a Change of Recommendation unless specifically permitted pursuant to the terms of *Section 5.3(d)*.

5.4. *Confidentiality; Access to Information; No Modification of Representations, Warranties or Covenants.*

(a) *Confidentiality*. The parties acknowledge that the Company and Parent have previously executed a Confidentiality Agreement effective as of March 4, 2009, as amended, attached hereto as *Exhibit E* (the

Confidentiality Agreement), which Confidentiality Agreement will continue in full force and effect in accordance with its terms and each of Parent and the Company will hold, and will use commercially reasonable efforts to cause its respective directors, officers, Employees, agents and advisors (including attorneys, accountants, consultants, bankers and financial advisors) to comply with the terms and provisions of the Confidentiality Agreement.

(b) *Access to Information*. Except as could reasonably be expected to cause a waiver of the attorney-client privilege (*provided, however*, that the parties agree to use commercially reasonable efforts to enter into a joint defense agreement if they determine that doing so could permit the disclosure of the following information without the waiver of such attorney-client privilege), each of the Company and Parent will afford the other party and the other party s accountants, counsel and other representatives reasonable access, upon reasonable prior notice, during normal business hours to its properties, contracts, books, records and personnel and other documents and data during the period prior to the Merger Effective Time and furnish such other information concerning its business, properties, results of operations and personnel, as the other party may reasonably request; *provided, however*, that the Company and Parent may restrict the foregoing access to the extent that any Legal Requirement of any Governmental Entity applicable to such party requires it to restrict or prohibit access to any such properties or information.

(c) *No Modification of Representations and Warranties or Covenants*. No information or knowledge obtained in any investigation or notification pursuant to this *Section 5.4*, *Section 5.6* or *Section 5.7* shall affect or be deemed to modify any representation or warranty contained herein, the covenants or agreements of the parties hereto or the conditions to the obligations of the parties hereto to consummate and effect the Merger under this Agreement.

5.5. *Public Disclosure*. Without limiting any other provision of this Agreement, Parent and the Company will consult with each other before issuing, and provide each other the opportunity to review, comment upon and concur with, and use all commercially reasonable efforts to agree on any press release or public statement with respect to this Agreement and the transactions contemplated hereby, including the Merger, and will not issue any such press release or make any such public statement prior to such consultation and (to the extent practicable) agreement, except as may be required by applicable Legal Requirements, any listing agreement with Nasdaq, any other applicable national securities exchange or market or in connection with a Change of Recommendation permitted pursuant by *Section 5.3(d)*. The parties have agreed to the text of the joint press release announcing the signing of this Agreement. The Parent and the Company shall hold a joint conference call immediately after the issuance of such press release.

5.6. *Commercially Reasonable Efforts*. Each of the Company and Parent shall, and shall cause their respective controlled affiliates to, cooperate in good faith and use their commercially reasonable efforts to undertake any reasonable actions required to lawfully complete the Merger and the transactions contemplated hereby. Notwithstanding the foregoing, neither the Company nor Parent shall be required to take (and, for the avoidance of doubt, neither the Company nor Parent shall take without the other party s consent) any action which (x) is reasonably likely to have a material adverse effect on the condition (financial or otherwise), business, assets, liabilities or results of operations of either Parent (or any of its Subsidiaries), the Company or the Surviving Corporation, taken individually or in the aggregate, (any such action, a *Burdensome Condition*) or (y) is not conditioned on the consummation of the Merger.

5.7. *Notification of Certain Matters*.

(a) *By the Company*. The Company shall give prompt notice to Parent of any representation or warranty made by it contained in this Agreement becoming untrue or inaccurate, or any failure of the Company to comply with or satisfy in any material respect any covenant or agreement required to be complied with or satisfied by it under this Agreement at or prior to the Closing, in each case, such that the conditions set forth in *Section 6.3(a)* or *Section 6.3(b)* would not be satisfied. The Company shall also provide prompt notice to Parent upon entering into a definitive written agreement to effectuate a Superior Offer.

Table of Contents

(b) *By Parent*. Parent shall give prompt notice to the Company of any representation or warranty made by it or Merger Sub contained in this Agreement becoming untrue or inaccurate, or any failure of Parent or Merger Sub to comply with or satisfy in any material respect any covenant or agreement required to be complied with or satisfied by either of them under this Agreement at or prior to the Closing, in each case, such that the conditions set forth in *Section 6.2(a)* or *Section 6.2(b)* would not be satisfied.

(c) From the date of this Agreement until the Merger Effective Time, each of Parent and the Company shall promptly notify the other in writing after learning of any pending or, to the Knowledge of Parent or the Company (as the case may be), threatened action, suit, arbitration or other proceeding or investigation by any Governmental Entity or any other Person (x) challenging or seeking material damages in connection with the Merger or the transactions contemplated hereby or (y) seeking to restrain or prohibit the consummation of the Merger or otherwise limit in any material respect the right of Parent or any Subsidiary of Parent to own or operate all or any portion of the businesses or assets of the Company following the Merger Effective Time.

5.8. *Third Party Consents*. The Company and Parent shall give (or Parent shall cause its Subsidiaries to give) any notices to third parties, and use, and Parent shall cause its Subsidiaries to use, commercially reasonable efforts to obtain any third party consents, (A) necessary, proper or advisable to consummate the transactions contemplated in this Agreement, (B) required to be disclosed in the Company Disclosure Letter or the Parent Disclosure Letter, as applicable, or (C) required to prevent a Company Material Adverse Effect from occurring prior to or after the Merger Effective Time or a Parent Material Adverse Effect from occurring prior to or after the Merger Effective Time; *provided, however*, that the Company and Parent shall coordinate and cooperate in determining whether any actions, consents, approvals or waivers are required to be obtained from parties to any Company Scheduled Contracts in connection with the consummation of the Merger and seeking any such actions, consents, approvals or waivers; *provided, further*, that in no event shall any party hereto be required to pay prior to the Merger Effective Time, and shall not pay or commit to pay without Parent s consent, a material amount in respect of, any fee, penalty or other consideration to any person to obtain any such consent, approval or waiver.

5.9. *Employee Benefit Matters; Continuation of Employment of Company Employees*.

(a) *Employee Benefit Matters*. Effective immediately before the Merger Effective Time, the Company shall terminate its 401(k) plan (unless Parent provides written notice to the Company at least five Business Days prior to the Closing Date that such 401(k) plan shall not be terminated), including any cash or deferred arrangement within the meaning of Section 401(k) of the Code (a *401(k) Plan*). Unless Parent provides any such written notice to the Company, the Company shall provide Parent with a certificate of the secretary of the Company that the Company s 401(k) plan has been terminated (or will be terminated effective no later than immediately before the Merger Effective Time) pursuant to resolutions of the Company s Board of Directors and any other necessary corporate action. The form and substance of such resolutions shall be subject to review and approval of Parent and its counsel (such review to be timely and not unreasonably withheld). The Company also shall take such other actions in furtherance of terminating such Company Employee Plan(s) as Parent may reasonably require. In the event that distribution or rollover of assets from the trust or custodial account of a 401(k) Plan which is terminated is reasonably anticipated to trigger liquidation charges, surrender charges or other fees to be imposed upon the account of any participant or beneficiary of such terminated plan or upon the Company or plan sponsor, then the Company shall take such actions as are necessary to reasonably estimate the amount of such charges and/or fees and provide such estimate in writing to Parent as soon as possible following the date of this Agreement.

(b) *Continuation of Employment of Company Employees*. Nothing contained herein, whether expressed or implied, shall confer upon any current or former Employee of the Company or upon any representative of any such person, or upon any collective bargaining agent, any rights or remedies, including any third party beneficiary rights of any right to employment or continued employment for any specified period, of any nature or kind whatsoever under or by reason of this Agreement. Parent or any of its Subsidiaries shall have the right to terminate the employment of any of the Company s Employees for any reason or no reason.

Table of Contents

(c) *Adoption or Amendment of Employee Benefit Plans*. No provision of this Agreement shall be deemed to be the adoption of, or an amendment to, any employee benefit plan, as that term is defined in Section 3(3) of ERISA, or otherwise to limit the right of the Company or the Parent or any Subsidiary of the Parent to amend, modify or terminate any such employee benefit plan.

5.10. *Nasdaq Listing*. Prior to the Merger Effective Time, Parent agrees to use its commercially reasonable efforts to authorize for listing on Nasdaq the shares of Parent Common Stock required to be reserved for issuance in connection with the issuance of the Convertible Notes.

5.11. *Indemnification and Insurance*. (a) Except for the release agreements set forth in *Exhibit F*, Parent agrees that all rights to exculpation, indemnification and advancement of expenses for acts or omissions occurring at or prior to the Merger Effective Time, whether asserted or claimed prior to, at or after the Merger Effective Time, now existing in favor of the current or former directors or officers, as the case may be, of the Company as provided in their respective certificates of incorporation or bylaws or other organization documents or in any indemnification agreement set forth in *Section 5.11* of the Company Disclosure Letter shall survive the Merger and shall continue in full force and effect.

(b) Except with respect to the subject matter of the release agreements set forth in *Exhibit F*, from and after the Merger Effective Time, Parent and the Surviving Corporation shall, to the fullest extent permitted under applicable law, indemnify and hold harmless (and advance funds in respect of each of the foregoing) each current and former director, or officer of the Company (each, together with such person s heirs, executors or administrators, an *Indemnified Party*) against any costs or expenses (including advancing reasonable attorneys fees and expenses in advance of the final disposition of any claim, suit, proceeding or investigation to each Indemnified Party to the fullest extent permitted by Legal Requirements), judgments, fines, losses, claims, damages, liabilities and amounts paid in settlement in connection with any actual or threatened claim, action, suit, proceeding or investigation, whether civil, criminal, administrative or investigative (an *Action*), arising out of, relating to or in connection with any action or omission occurring or alleged to have occurred before the Merger Effective Time, including acts or omissions in connection with such person serving as an officer, director or other fiduciary in any entity if such service was at the request or for the benefit of the Company. An Indemnified Party shall notify the Surviving Corporation in writing promptly upon learning of any claim, action, suit, proceeding, investigation or other matter in respect of which such indemnification may be sought. The Surviving Corporation shall have the right, but not the obligation, to assume and control the defense of, including the investigation of, and corrective action required to be undertaken in response to, any litigation, claim or proceeding relating to any acts or omissions covered under this *Section 5.11* with counsel reasonably selected by it. Notwithstanding anything to the contrary, in no event shall the Surviving Corporation be liable for any settlement or compromise effected without its written consent.

(c) Prior to the Merger Effective Time, the Company shall purchase, and, following the Merger Effective Time, the Surviving Corporation shall maintain, a fully pre-paid six (6)-year tail policy to the current policy of directors and officers liability insurance maintained as of the date hereof by the Company (the Current Policy), which tail policy shall cover a period from the Merger Effective Time through and including the date which is the sixth (6th) anniversary of the Closing Date with respect to claims arising from facts or events that existed or occurred prior to or at the Merger Effective Time, and which tail policy shall contain the same coverage (including the scope and amount thereof) as, and contain terms and conditions that are equivalent to, the coverage set forth in the Current Policy; provided that in no event shall the Company expend in excess of the amounts set forth in *Section 8.1(b)(iii)* of the Company Disclosure Letter (the *Maximum Amount*) to procure insurance coverage pursuant hereto without the prior written consent of the Company. If the Company is unable to maintain or obtain the insurance called for by this paragraph, the Company shall obtain as much comparable insurance as available for the Maximum Amount. The Indemnified Parties may be required to make reasonable application and provide reasonable and customary representations and warranties to applicable insurance carriers for the purpose of obtaining such insurance.

Table of Contents

(d) The rights of each Indemnified Party hereunder shall be in addition to, and not in limitation of, any other rights such Indemnified Party may have under the certificate of incorporation or bylaws or other organization documents of the Company or the Surviving Corporation, any other indemnification agreement or arrangement set forth in *Section 5.11* of the Company Disclosure Letter or the DGCL. The provisions of this *Section 5.11* shall survive the consummation of the Merger and, notwithstanding any other provision of this Agreement that may be to the contrary, expressly are intended to benefit, and are enforceable by, each of the Indemnified Parties.

5.12. *Section 16 Matters*. Prior to the Merger Effective Time, the Company shall take all such steps as may be required (to the extent permitted under applicable Legal Requirements) to cause any dispositions of Company Common Stock (including derivative securities with respect to Company Common Stock) resulting from the transactions contemplated by *Article I* of this Agreement by each individual who is subject to the reporting requirements of Section 16(a) of the Exchange Act with respect to the Company to be exempt under Rule 16b-3 promulgated under the Exchange Act.

5.13. *Company Rights Agreement; State Takeover Laws*.

(a) The Company covenants and agrees that unless and until the earlier of the termination of this Agreement pursuant to its terms or the Merger Effective Time, except in connection with the Company entering into a binding written agreement concerning an Acquisition Proposal that is a Superior Offer, it will not (i) redeem the Company Rights, (ii) amend the Company Rights Agreement or (iii) take any action which would allow any Person (as defined in the Company Rights Agreement) other than Parent, Merger Sub or any other Subsidiary of Parent to acquire beneficial ownership (for purposes of this *Section 5.13*, as defined in the Company Rights Agreement) of 20% or more of the Shares (other than any Person or group that already owns 20% or more of the Shares on the date hereof) without causing a Distribution Date or a Transaction (as each such terms are defined in the Company Rights Agreement) to occur. The Company s Board of Directors shall not make a determination that Parent, Merger Sub or any of their respective affiliates or associates, directors, officers or Employees is an Acquiring Person for purposes of the Company Rights Agreement by reason of the entering into of this Agreement or the consummation of the Merger or the other transactions contemplated hereby.

(b) If any control share acquisition, fair price, business combination or other anti-takeover laws becomes or is deemed to be applicable to the Company, Parent, Merger Sub or the Merger, including the acquisition of share of the Company Common Stock pursuant thereto, or any other transaction contemplated by this Agreement, then the Company s Board of Directors shall take all action necessary to render such law inapplicable to the foregoing.

5.14. *Resignations*. The Company shall use commercially reasonable efforts to cause each director of the Company to deliver to Parent written resignations from such position as director, effective at or before the Merger Effective Time.

5.15. *Labor Matters*. The Company shall comply with all notice or other obligations under the Worker Adjustment and Retraining Notification Act or similar state or local law in connection with any terminations at or before the Merger Effective Time.

5.16. *Releases.*

(a) The Company shall obtain executed release agreements in the form of *Exhibit F* from the Company s directors (other than John K.A. Prendergast), Kenneth Chahine, Priscilla DeVries, Kirk Johnson and Andrew A. Sauter no later than August 24, 2009. For the avoidance of doubt, failure to obtain such release agreements shall constitute a material breach of this Agreement.

(b) The Company shall use commercially reasonable efforts to obtain, prior to the Closing, executed release agreements in the form of *Exhibit F* from the Company s officers as well as participants in the

Table of Contents

Avigen, Inc. Management Transition Plan, effective July 15, 1998, as last amended October 30, 2008 (it being understood that obtaining such consents shall not be a condition to the Closing). The Company also shall use commercially reasonable efforts to obtain executed releases in the form of *Exhibit F* from Priscilla DeVries, Kirk Johnson and Andrew A. Sauter dated as of the Closing Date.

5.17. *Management Transition Plan.* The Company shall amend, or cause to be amended, the Avigen, Inc. Management Transition Plan, effective July 15, 1998, as last amended October 30, 2008, in substantially the form of *Exhibit G*. For the avoidance of doubt, failure to adopt such amendment shall constitute a material breach of this Agreement.

ARTICLE VI

CONDITIONS TO CLOSING

6.1. *Conditions to the Obligations of Each Party to Effect the Merger*. The respective obligations of each party to this Agreement to consummate and effect the Merger shall be subject to the satisfaction at or prior to the Closing of the following conditions, any of which may be waived, in writing, by mutual agreement of Parent and the Company to the extent permitted by applicable Legal Requirements:

(a) *Stockholder Approvals*. The adoption of this Agreement shall have been approved by the Required Company Stockholders, and the adoption of this Agreement and the issuance of the Convertible Notes contemplated hereunder shall have been approved by the Required Parent Stockholders.

(b) *No Violation of Legal Requirements*. No Governmental Entity of competent jurisdiction shall have issued an order, decree, injunction or other order or ruling (whether temporary, preliminary or permanent) which (i) is in effect and (ii) has the effect of making the Merger illegal or otherwise prohibiting consummation of the Merger, where the violation of such order, decree or ruling that would occur if the Merger were consummated would have a Company Material Adverse Effect or a Parent Material Adverse Effect.

(c) *Registration Statement Effective; Proxy Statement/Prospectus*. The SEC shall have declared the Registration Statement effective. No stop order suspending the effectiveness of the Registration Statement or any part thereof shall have been issued and be pending, and no proceeding for that purpose shall have been initiated by the SEC and be pending.

6.2. *Additional Conditions to the Obligations of the Company*. The obligation of the Company to consummate and effect the Merger shall be subject to the satisfaction at or prior to the Merger Effective Time of each of the following conditions, any of which may be waived, in writing, exclusively by the Company:

(a) *Parent Representations and Warranties*. All representations and warranties of Parent and Merger Sub contained in this Agreement shall have been true and correct as of the date hereof and shall be true and correct as of the Closing Date as if made as of the Closing Date (except to the extent that any such representation and warranty by its terms speaks as of the date of this Agreement or another specified date, in which case such representation and warranty shall have been true and correct as of such date); *provided, however,* that (i) in determining the accuracy of such representations and warranties for purposes of this *Section 6.2(a)*, all materiality qualifications that are contained in such representations and warranties that limit the scope of such representations and warranties shall be disregarded; and (ii) any inaccuracies in the representations and warranties of Parent and Merger Sub shall be disregarded unless all of such inaccuracies, considered collectively, shall have had, and shall continue to have, a Parent Material Adverse Effect.

(b) *Agreements and Covenants*. Parent and Merger Sub shall have performed or complied in all material respects with all agreements and covenants required by this Agreement to be performed or complied with by Parent or Merger Sub on or prior to the Merger Effective Time, and the Company shall

have received a certificate with respect to the foregoing signed on behalf of Parent, with respect to the covenants of Parent, by an authorized executive officer of Parent and a certificate with respect to the foregoing signed on behalf of Merger Sub, with respect to the covenants of Merger Sub, by an authorized executive officer of Merger Sub.

(c) *Material Adverse Effect*. There shall not have occurred any fact, circumstance, event, change, effect or occurrence that has had or is reasonably likely to have a Parent Material Adverse Effect since the date hereof that is continuing.

(d) *No Governmental Restriction*. There shall not be any pending suit, action or proceeding asserted by any Governmental Entity (i) challenging or seeking to restrain or prohibit the consummation of the Merger or any of the other transactions contemplated by this Agreement, the effect of which restraint or prohibition if obtained would cause the condition set forth in *Section 6.1(b)* to not be satisfied or (ii) seeking to require Parent, the Company, Parent s Subsidiaries or any of their respective affiliates to effect or agree to a Burdensome Condition.

(e) *Trust Agreement; Indenture; CPR Agreement; Escrow Agreement.* Parent has entered into the Trust Agreement pursuant to which an amount equal to the First Payment Consideration multiplied by the sum of (A) the number of shares for which a Convertible Notes Election is made and (B) one-half of the number of Non-Election Shares shall be deposited with Citibank, N.A. or another financial institution selected by Parent and reasonably acceptable to Company simultaneous with the Merger Effective Time. Parent has entered into the Indenture, CPR Agreement and Escrow Agreement, each dated as of the Closing Date.

(f) *Nasdaq Listing*. The shares of Parent Common Stock required to be reserved for issuance in connection with the issuance of the Convertible Notes shall have been duly authorized for listing on Nasdaq, subject to official notice of issuance.

6.3. *Additional Conditions to the Obligations of Parent and Merger Sub*. The obligations of Parent and Merger Sub to consummate and effect the Merger shall be subject to the satisfaction at or prior to the Merger Effective Time of each of the following conditions, any of which may be waived, in writing, exclusively by Parent and Merger Sub:

(a) *Company Representations and Warranties*. Except as set forth in the following sentence, all representations and warranties of the Company contained in this Agreement shall have been true and correct as of the date hereof and shall be true and correct as of the Closing Date as if made as of the Closing Date (except to the extent that any such representation and warranty by its terms speaks as of the date of this Agreement or another specified date, in which case such representation and warranty shall have been true and correct as of such date); *provided, however,* that (i) in determining the accuracy of such representations and warranties for purposes of this *Section 6.3(a)*, all materiality qualifications that are contained in such representations and warranties that limit the scope of such representations and warranties shall be disregarded; and (ii) any inaccuracies in the representations and warranties of the Company shall be disregarded unless all of such inaccuracies, considered collectively, shall have had, and shall continue to have, a Company Material Adverse Effect. The representations and warranties of the Company set forth in *Section 2.2(a)(i)* be true and correct as of the Closing Date (giving effect to any modifications to *Section 2.2(a)(i)* of the Company Disclosure Letter pursuant to *Section 4.1(d)* hereof and subject to a *de minimis* deviation of up to 15,000 shares of Company Common Stock) as if made as of the Closing Date.

(b) *Agreements and Covenants*. The Company shall have performed or complied in all material respects with all agreements and covenants required by this Agreement to be performed or complied with by it at or prior to the Closing, and Parent and Merger Sub shall have received a certificate to such effect signed on behalf of the Company by an authorized executive officer of the Company.

(c) *Material Adverse Effect*. There shall not have occurred any fact, circumstance, event, change, effect or occurrence that has had or is reasonably likely to have a Company Material Adverse Effect since the date hereof that is continuing.

(d) *No Governmental Restriction*. There shall not be any pending suit, action or proceeding asserted by any Governmental Entity (i) challenging or seeking to restrain or prohibit the consummation of the Merger or any of the other transactions contemplated by this Agreement, the effect of which restraint or prohibition if obtained would cause the condition set forth in *Section 6.1(b)* to not be satisfied or (ii) seeking to require Parent, the Company, Parent s Subsidiaries or any of their respective affiliates to effect or agree to a Burdensome Condition.

(e) *Non-USRPHC Certificate*. Parent shall have received from the Company (i) a properly executed statement, dated as of the Closing Date, stating under penalties of perjury that the Company is not, and has not been, a United States real property holding corporation as defined in Section 897(c)(2) of the Code during the applicable period described in Section 897(c)(1)(A)(ii) of the Code, in form and substance reasonably acceptable to Parent, and (ii) proof reasonably satisfactory to Parent that the Company has provided notice of such verification to the Internal Revenue Service in accordance with the provisions of Treasury Regulations Section 1.897-2(h)(2).

(f) *Releases*. The releases required under *Section 5.16(a*) hereof shall have become effective and not been revoked.

ARTICLE VII

TERMINATION, AMENDMENT AND WAIVER

7.1. *Termination*. Subject to the terms and conditions of this Agreement (including *Section 7.3*), this Agreement may be terminated at any time prior to the Merger Effective Time:

(a) by mutual written consent duly authorized by the Boards of Directors of Parent and the Company;

(b) by either the Company or Parent if the Merger shall not have been consummated by April 20, 2010 (the *End Date*); *provided*, *however*, that the right to terminate this Agreement under this *Section 7.1(b)* shall not be available to any party (i) whose (or whose affiliate s) action or failure to act has been a principal cause of or primarily resulted in the failure of Merger to occur on or before the End Date and such action or failure to act constitutes a breach of this Agreement or (ii) that (or whose affiliate) is in material breach of this Agreement;

(c) by either the Company or Parent if a Governmental Entity of competent jurisdiction shall have issued an order, decree or ruling or taken any other action (including the failure to have taken an action) having the effect of permanently restraining, enjoining or otherwise prohibiting the Merger, which order, decree, ruling or other action is final and nonappealable;

(d) by either the Company or Parent if the approval of the adoption of this Agreement by the Required Company Stockholders shall not have been obtained at the Company Stockholders Meeting duly convened therefor or at any adjournment or postponement thereof;

(e) by either the Company or Parent if the approval of the Merger and the issuance of the Convertible Notes contemplated hereunder by the Required Parent Stockholders shall not have been obtained at the Parent Stockholders Meeting duly convened therefor or at any adjournment or postponement thereof;

(f) by Parent, if (i) any representation or warranty of the Company set forth in this Agreement shall have been breached or become untrue or the Company has breached any covenant or agreement of the Company set forth in this Agreement, (ii) such breach or untruth is not cured within 30 days after receipt by the Company of written notice from Parent (*provided*, *however*, that such 30-day period shall not apply if such breach or misrepresentation is not curable), and (iii) such breach or misrepresentation would cause the conditions set forth in *Section 6.3* incapable of being satisfied by the End Date; *provided* that Parent is not then in breach of its respective representations and warranties, covenants or agreements set forth in this Agreement such that any of the conditions set forth in *Section 6.2(a)* or *Section 6.2(b)* would not be satisfied by the End Date;

(g) by the Company, if (i) any representation or warranty of Parent or Merger Sub set forth in this Agreement shall have been breached or become untrue or Parent or Merger Sub has breached any covenant or agreement of Parent or Merger Sub set forth in this Agreement, (ii) such breach or untruth is not cured within 30 days after receipt by Parent of written notice from the Company (*provided*, *however*, that such 30-day period shall not apply if such breach or misrepresentation is not curable), and (iii) such breach or misrepresentation would cause the conditions set forth in *Section 6.2* incapable of being satisfied by the End Date; *provided* that the Company is not then in breach of its respective representations and warranties, covenants or agreements set forth in this Agreement such that any of the conditions set forth in *Section 6.3(a)* or *Section 6.3(b)* would not be satisfied by the End Date;

(h) by the Company, upon written notice to Parent, if the Company shall have entered into a definitive agreement to effect a Superior Offer in compliance with the provisions of *Section 5.3* and this *Article VII*; or

(i) by Parent, upon written notice to the Company, if the Company shall have entered into a definitive agreement to effect a Superior Offer.

7.2. *Notice of Termination; Effect of Termination*. Any termination of this Agreement under *Section 7.1* will be effective immediately upon the delivery of a valid written notice of the terminating party to the other party hereto. In the event of the termination of this Agreement as provided in *Section 7.1*, this Agreement shall be of no further force or effect and there shall be no liability or obligation on the part of Parent, the Company, Parent s Subsidiaries or their respective officers or directors, except (i) as set forth in *Section 5.4(a)*, this *Section 7.2*, *Section 7.3* and *Article VIII*, each of which shall survive the termination of this Agreement and (ii) with respect to any liabilities or damages incurred or suffered by a party as a result of the willful and material breach by the other party of any of its representations, warranties, covenants or other agreements set forth in this Agreement, nothing in this Agreement shall relieve any party from liability for such willful and material breach.

7.3. *Fees and Expenses*. In the event the Board of Directors of Company withholds, withdraws, amends or modifies the Company Board Recommendation following receipt of a Superior Offer and the Merger is not consummated, Company shall reimburse Parent for one-half of its reasonable and documented out-of-pocket legal, accounting and other advisory fees and expenses up to a maximum of $500,000; it being understood and agreed that, notwithstanding anything to the contrary contained herein, (x) Parent shall provide to the Company an accounting of all such costs within three Business Days of any request and (y) the effectiveness of any election by the Company to terminate this Agreement under the circumstances described in this sentence shall be conditioned upon the Company paying to Parent all of such out-of-pocket fees and expenses. In the event Parent or Company terminates this Agreement for any other reason, each party hereto shall be responsible for the payment of its fees and expenses incurred in connection with this Agreement, except for remedies of Parent and Company available under *Section 8.7* hereof.

7.4. *Amendment*; *Waivers*. Any provision of this Agreement may be amended or waived if, but only if, such amendment or waiver is in writing and is duly executed and delivered by the Company and Parent. No failure or delay by any party in exercising any right, power or privilege hereunder shall operate as a waiver thereof nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power or privilege. The rights and remedies herein provided shall be cumulative and not exclusive of any rights or remedies provided by law.

ARTICLE VIII

GENERAL PROVISIONS

8.1. *Interpretation; Certain Definitions.*

(a) *Interpretation*. When a reference is made in this Agreement to Exhibits, such reference shall be to an Exhibit to this Agreement unless otherwise indicated. When a reference is made in this Agreement to

Table of Contents

Sections, such reference shall be to a section of this Agreement unless otherwise indicated. For purposes of this Agreement: (i) the words *include*, *includes* and *including*, when used herein, shall be deemed in each case to be followed by the words *without limitation;* (ii) the words *hereof*, *herein*, *hereto* and *hereunder* and words of similar import, when used in this Agreement, shall refer to this Agreement as a whole and no to any particular provision of this Agreement; (iii) references herein to *party* or *parties* shall mean a party or the parties to this Agreement unless the context provides otherwise; (iv) the table of contents and headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement; (v) the meaning assigned to each term defined herein shall be equally applicable to both the singular and the plural forms of such term, and words denoting any gender shall include all genders; (vi) a reference to any party to this Agreement or any other agreement or document shall include such party s successors and permitted assigns; (vii) a reference to any Legal Requirement or to any provision of any Legal Requirement shall include any amendment to, and any modification or re-enactment thereof, any provision substituted therefor and all regulations and statutory instruments issued thereunder or pursuant thereto; (viii) all references to *$* or *dollars* shall be deemed references to United States dollars; and (ix) capitalized terms used and not defined in the exhibits, annexes and schedules attached to this Agreement shall have the respective meanings set forth in this Agreement.

(b) *Certain Definitions*.

(i) *Acquisition Proposal*, with respect to the Company, shall mean a (A) a merger, joint venture, partnership, consolidation, tender offer, recapitalization, reorganization, share exchange, business combination or similar transaction involving the Company or (B) any other direct or indirect acquisition involving 50% or more of the total voting power of the Company, or all or substantially all of the total assets of the Company (*provided, however*, neither the transactions contemplated by this Agreement nor any other actual or proposed transaction involving Parent, Merger Sub or any of their affiliates shall be deemed an Acquisition Proposal).

(ii) *Additional Assets* shall mean: (i) any cash royalties or other immediately available cash consideration received on or prior to June 30, 2010 pursuant to the agreement by and between the Company and Advanced Cell Technology, Inc. as acknowledged and agreed to by Embriome Sciences, Inc. dated July 14, 2008, to the extent such cash recoveries exceed those specifically related amounts set forth on *Section 8.1(b)(ii)* of the Company Disclosure Letter; (ii) any cash amounts collected from subtenants at the Company s headquarters at 1301 Harbor Bay Parkway, Alameda, CA 94502, to the extent such cash recoveries exceed those specifically related amounts set forth on *Section 8.1(b)(ii)* of the Company Disclosure Letter; (iii) any other cash amounts received pursuant to the early termination of the lease at the Company s headquarters at 1301 Harbor Bay Parkway, Alameda, CA 94502 to the extent such cash recoveries exceed those specifically related amounts set forth on *Section 8.1(b)(ii)* of the Company Disclosure Letter; (iv) any cash amounts collected from any other sale of assets listed on *Section 4.1(b)(viii)* of the Company Disclosure Letter not already specified in clauses (i) through (iii) of this sentence and not including any Genzyme Settlement Amount; (v) any expenses avoided as a result of the early termination of the lease at the Company s headquarters at 1301 Harbor Bay Parkway, Alameda, CA 94502 to the extent such expenses are set forth on *Section 8.1(b)(ii)* of the Company Disclosure Letter; and (vi) any expenses set forth on *Section 8.1(b)(ii)* of the Company Disclosure Letter which are avoided or not incurred; notwithstanding clauses (i) through (vi) of this sentence, with respect to any other specific category of liability set forth on *Section 8.1(b)(ii)* of the Company Disclosure Letter, if the actual amount of such specifically-identified type of liability is lower than the applicable estimated amount set forth on *Section 8.1(b)(ii)* of the Company Disclosure Letter, then such excess amount shall be deemed to be part of *Additional Assets.*

(iii) *Additional Liabilities* shall mean (i) any and all liabilities of the Company, contingent or otherwise (and for the avoidance of doubt (x) any amounts paid to current or former directors and officers of the Company in connection with the releases contemplated by *Section 5.16* and (y) any amounts permitted to be paid under *Section 4.1(b)(xv)* of the Company Disclosure Letter), related to the business activities and operations of the Company prior to the Merger Effective Time, except as (but

Table of Contents

only to the extent) set forth as a quantified amount of liability set forth in *Section 8.1(b)(ii*) of the Company Disclosure Letter; it being understood and agreed for the avoidance of doubt that, with respect to any specific category of liability set forth on *Section 8.1(b)(ii)* of the Company Disclosure Letter, if the actual amount of such specifically-identified type of liability exceeds the applicable estimated amount set forth on *Section 8.1(b)(ii)* of the Company Disclosure Letter, then such excess amount shall be deemed to be part of *Additional Liabilities* ; it further being understood that *Additional Liabilities* shall not include any liabilities fully insured against (but only to the extent in excess of any applicable deductible and below any payment cap) under Company s insurance policies as in effect as of the Merger Effective Time; (ii) the expenses of the Avigen Representative (as set forth in *Section 1.16*) incurred in connection with this Agreement and (iii) the expenses of the Holder Representative (as defined in the agreement governing the Contingent Payment Rights and as set forth in Section 7.2 of such agreement) incurred prior to June 30, 2010.

(iv) *Avigen Representative* means Andrew A. Sauter or any successor person thereto appointed in accordance with *Section 1.16*.

(v) *Business Day* shall mean any day other than a Saturday, Sunday or one on which banks are authorized or permitted to close in New York, New York.

(vi) *COBRA* shall mean the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended.

(vii) *Company Balance Sheet* shall mean the balance sheet of the Company dated as of June 30, 2009 contained in the Company SEC Report filed with the SEC on August 10, 2009.

(viii) *Company Common Stock* shall mean the common stock, par value $0.001, of the Company.

(ix) *Company Material Adverse Effect* shall mean any fact, circumstance, event, change, effect or occurrence (*Effect*) that (i) has or would be reasonably likely to have a material adverse effect on the business or financial condition of the Company taken as a whole (taking into account that the Company has effectively ceased business operations and is preparing to liquidate in the event the Merger is not consummated) or (ii) would prevent the Company from consummating the Merger or the other transactions contemplated hereby, but, in the case of the foregoing clause (i), none of the following shall be deemed in and of themselves, either alone or in combination, to constitute, and none of the following shall be taken into account in determining whether there has been or will be, a Company Material Adverse Effect: (A) any adverse Effect generally affecting the industry in which the Company operates or conducts its business or the economy or the financial or securities markets in the United States or elsewhere in the world, including effects on such industries, economy or markets resulting from any regulatory an political conditions or developments or any natural disaster of any acts of terrorism, sabotage, military action or war (whether or not declared) or any escalation or worsening thereof (except in each case to the extent such changes disproportionately affect the Company); (B) any Effect reflecting or resulting from changes in Legal Requirements or GAAP or the interpretations thereof; (C) any adverse Effect resulting from actions or omissions of the Company which Parent has requested, to which Parent has consented or that are in compliance with the terms of this Agreement; (D) any adverse Effect resulting from any legal proceedings arising from allegations of breach of fiduciary duty relating to this Agreement or false or misleading public disclosure (or omission) in connection with this Agreement made or brought by any of the current or former stockholders of the Company (on their own behalf or on behalf of the Company); (E) any change in the market price or trading volume of the outstanding securities of the Company; (F) any failure by the Company to meet internal projections or forecasts or published revenue or earnings predictions for any period; (G) any adverse Effect arising directly or indirectly from or otherwise relating to any act of God, any act of terrorism, war or other armed hostilities, any regional, national or international calamity or any other similar event; or (H) any adverse Effect resulting from the announcement or pendency of (1) the Merger or the proposal thereof (including the loss or departure of employees or adverse developments

Table of Contents

in relationships with customers, suppliers, distributors or other business partners) or (2) this Agreement and the transactions contemplated hereby.

(x) *Company Scheduled Contract* shall mean:

(1) any material contracts (as such term is defined in Item 601(b)(10) of Regulation S-K of the SEC) to which the Company is a party or by which the Company is bound;

(2) any employment or consulting Contract to which the Company is a party or by which the Company is bound, other than those that are terminable by the Company without liability or financial obligations of over $10,000;

(3) any Contract or plan to which the Company is a party or by which the Company is bound, including any stock option plan, stock appreciation right plan or stock purchase plan, any of the benefits of which will be increased, or the vesting of benefits of which will be accelerated, by the occurrence of any of the transactions contemplated by this Agreement or the value of any of the benefits of which will be calculated on the basis of any of the transactions contemplated by this Agreement;

(4) any material agreement of indemnification to which the Company is a party or by which the Company is bound;

(5) any Contract containing any covenant (A) limiting in any material respect the right of the Company to make use of any material Intellectual Property or (B) otherwise having an adverse effect on the assets or property of the Company;

(6) any Contract pursuant to which the Company have continuing material obligations to jointly develop any material Intellectual Property that will not be owned, in whole or in part, by the Company and which may not be terminated without penalty upon notice of 90 days or less;

(7) any Contract containing any material support, maintenance or service obligation on the part of the Company, other than those obligations that are terminable by the Company without liability or financial obligations of over $10,000;

(8) any material Contract to which the Company is a party or by which the Company is bound requiring or licensing any third party to manufacture or reproduce any of the Company s products, services or technology, including any component thereof, or any material Contract to sell, service or distribute any of the Company s products, services or technology, except agreements terminable by the Company without liability or financial obligations of over $10,000;

(9) any mortgages, indentures, guarantees, loans or credit agreements, security agreements or other Contracts to which the Company is a party or by which the Company is bound relating to the borrowing of money or extension of credit and that evidence indebtedness in excess of $10,000;

(10) any material settlement agreement entered into by the Company since December 31, 2006;

(11) any non-competition or non-solicitation agreements to which the Company is a party or by which the Company is bound;

(12) any material collaboration agreements for drug programs to which the Company is a party or by which the Company is bound;

(13) any material agreements to which the Company is a party or by which the Company is bound relating to preclinical and clinical studies and drug programs, including clinical trial agreements, investigator-sponsored clinical trial agreements, materials transfer agreements, feasibility agreements, sponsored research agreements, licenses and master services agreements; and

Table of Contents

(14) all insurance policies covering the Company or any of its Employees, properties or assets that are in full force and effect as of the date of this Agreement.

(xi) *Contingent Payment Right* shall mean the contingent payment right substantially in the form attached as *Exhibit H* hereto, such contingent payment rights to be issued by Parent at the Merger Effective Time.

(xii) *Contract* shall mean any written, oral or other agreement, contract, subcontract, settlement agreement, lease, binding understanding, instrument, note, option, warranty, purchase order, license, sublicense, insurance policy, benefit plan or other legally binding commitment or undertaking of any nature, as in effect as of the date hereof or as may hereinafter be in effect.

(xiii) *Convertible Note* shall mean one of the convertible notes issued pursuant to the Indenture, such convertible notes to be issued by Parent at the Merger Effective Time.

(xiv) *ERISA* shall mean the Employment Retirement Income Security Act of 1974, as amended.

(xv) *Escrow Account* shall mean the escrow account established under the Escrow Agreement.

(xvi) *First Payment Consideration* shall mean (A) $35,461,000 (the *Targeted First Payment Cash Amount*) divided by (B) the number of shares of Company Common Stock outstanding immediately prior to the Merger Effective Time (as increased by any shares of Company Common Stock acquired pursuant to any derivative securities outstanding as of the Merger Effective Time); *provided*, *however*, that the Targeted First Payment Cash Amount will be: (i) reduced by $1 for every $1 by which the aggregate cash liquidation proceeds of the marketable securities and restricted investments held by the Company as of June 30, 2009 are less than $27,721,000 and (ii) increased by any Genzyme Settlement Amount.

(xvii) *Genzyme Settlement Amount* shall mean (A) in the event of a transaction of the type referred to in Section 4.1(b)(viii)(a), the amount received by the Company pursuant to Section 4.1(b)(viii)(a) or (B) in the event of a transaction of the type referred to in Section 4.1(b)(viii)(b), the amount received by the Company pursuant to Section 4.1(b)(viii)(b), less 50% of the amount received by the Company pursuant to Section 4.1(b)(viii)(b) above $6 million.

(xviii) *Indenture* shall mean the indenture substantially in the form attached as *Exhibit I* hereto, by and between Parent and American Stock Transfer & Trust Co., LLC, as trustee, dated as of the Closing Date pursuant to which the Convertible Notes are to be issued.

(xix) *Knowledge* shall mean, with respect to any matter in question, the applicable party (including in the case of a corporation, any of its directors or executive officers) having actual knowledge or deemed to have knowledge of any piece of information that could be discerned pursuant to a reasonable investigation.

(xx) *Legal Requirements* shall mean any federal, state, local, municipal, foreign or other law, statute, constitution, principle of common law, resolution, ordinance, code, order, edict, decree, rule, regulation, ruling or requirement issued, enacted, adopted, promulgated, implemented or otherwise put into effect by or under the authority of any Governmental Entity.

(xxi) *Liens* shall mean all pledges, claims, liens, charges, encumbrances, options and security interests of any kind or nature whatsoever, including any restriction on the right to vote, possess, use, sell, transfer or otherwise dispose of such capital stock or other ownership interests, except for restrictions imposed by applicable securities laws.

(xxii) *Made Available* shall mean (A) with respect to any documents or other materials relating to the Company, that such documents or materials were either (x) actually provided by a representative of the Company to a representative of Parent, (y) located in the electronic on-line data room organized by the Company in connection with the diligence investigation conducted by Parent or (z) filed with the SEC or otherwise made available publicly, and (B) with respect to any documents or other

materials relating to Parent or Merger Sub, that such documents or materials were either (x) actually provided by a representative of Parent to a representative of the Company, (y) located in the electronic on-line data room organized by Parent in connection with the diligence investigation conducted by the Company or (z) filed with the SEC or otherwise made available publicly.

(xxiii) *Merger Effective Time* shall mean the time at which the Certificate of Merger is accepted for filing by the Secretary of State of the State of Delaware or such time as otherwise specified in the Certificate of Merger.

(xxiv) *Parent Balance Sheet* shall mean the balance sheet of Parent dated as of March 31, 2009 contained in the Company SEC Reports filed with the SEC on May 15, 2009.

(xxv) *Parent Common Stock* shall mean the common stock, par value $0.001, of Parent.

(xxvi) *Parent Material Adverse Effect* shall mean any Effect that (i) has or would be reasonably likely to have a material adverse effect on the business, results of operations or financial condition of Parent and its Subsidiaries taken as a whole or (ii) would prevent Parent or Merger Sub from consummating the Merger or the other transactions contemplated hereby, but, in the case of the foregoing clause (i), none of the following shall be deemed in and of themselves, either alone or in combination, to constitute, and none of the following shall be taken into account in determining whether there has been or will be, a Parent Material Adverse Effect: (A) any adverse Effect generally affecting the industry in which Parent operates or conducts its business or the economy or the financial or securities markets in the United States or elsewhere in the world, including effects on such industries, economy or markets resulting from any regulatory an political conditions or developments or any natural disaster of any acts of terrorism, sabotage, military action or war (whether or not declared) or any escalation or worsening thereof (except in each case to the extent such changes disproportionately affect Parent or its Subsidiaries); (B) any Effect reflecting or resulting from changes in Legal Requirements or GAAP or the interpretations thereof; (C) any adverse Effect resulting from any legal proceedings arising from allegations of breach of fiduciary duty relating to this Agreement or false or misleading public disclosure (or omission) in connection with this Agreement made or brought by any of the current or former stockholders of Parent (on their own behalf or on behalf of Parent); (D) any change in the market price or trading volume of the outstanding securities of Parent; (E) any failure by Parent to meet internal projections or forecasts or published revenue or earnings predictions for any period; (F) any adverse Effect arising directly or indirectly from or otherwise relating to any act of God, any act of terrorism, war or other armed hostilities, any regional, national or international calamity or any other similar event; or (G) any adverse Effect resulting from the announcement or pendency of (1) the Merger or the proposal thereof (including the loss or departure of employees or adverse developments in relationships with customers, suppliers, distributors or other business partners) or (2) this Agreement and the transactions contemplated hereby.

(xxvii) *Permitted Liens* means (a) the lien of current real and personal property taxes incurred but not yet due and payable, (b) materialmen s or similar liens or obligations arising in the ordinary course of business securing obligations not yet due and payable or (c) purchase money security interests or similar liens arising in the ordinary course of business not to exceed $25,000 in the aggregate.

(xxviii) *Person* shall mean any individual, corporation (including any non-profit corporation), general partnership, limited partnership, limited liability partnership, joint venture, estate, trust, company (including any limited liability company or joint stock company), firm or other enterprise, association, organization, entity or Governmental Entity.

(xxix) *Registered* shall mean issued by, registered with, renewed by or the subject of a pending application before any Governmental Entity or Internet domain name registrar.

(xxx) *Second Payment Consideration* shall equal (A) the amount remaining in the Escrow Account following satisfaction of the Demand Amount (as such amount may be reduced to the Selected

Amount) divided by (B) the number of shares of Company Common Stock outstanding immediately prior to the Merger Effective Time (as increased by any shares of Company Common Stock acquired pursuant to any derivative securities outstanding as of the Merger Effective Time).

(xxxi) *Subsidiary* shall mean any corporation or other organization, whether incorporated or unincorporated, at least a majority of the securities or other interests of which having by their terms ordinary voting power to elect a majority of the Board of Directors or others performing similar functions with respect to such corporation or other organization is directly or indirectly owned or controlled by such party or by any one or more of its Subsidiaries, or by such party and one or more of its Subsidiaries.

(xxxii) *Superior Offer*, with respect to the Company, shall mean a bona fide written Acquisition Proposal pursuant to which a Third Party would own, if consummated, at least 50% of the outstanding capital stock of the Company (or of the surviving entity in a merger or the direct or indirect parent of the surviving entity in a merger) or at least 50% of the assets of the Company, on terms that the Board of Directors of the Company in good faith concludes (after consultation with its outside legal counsel and its financial adviser), taking into account all aspects of such Acquisition Proposal, including, among other things, all legal, financial, regulatory and other aspects of the offer and the Person making the offer, would if consummated result in a transaction that is more favorable from a financial point of view to the Company s stockholders (in their capacities as stockholders) than the Merger and is reasonably capable of being consummated on the terms proposed.

(xxxiii) *Tax* or, collectively, *Taxes* shall mean any and all U.S. federal, state, local and non-U.S. taxes, including taxes based upon or measured by gross receipts, income, profits, sales, use and occupation, and value added, ad valorem, transfer, franchise, withholding, payroll, recapture, employment, excise and property taxes, together with all interest, penalties and additions imposed with respect to such amounts.

(xxxiv) *Tax Return* shall mean any report, return (including information return), claim for refund, election, estimated tax filing or declaration relating to Taxes, including any schedule or attachment thereto, and including any amendments thereof.

(xxxv) *Tax Sharing Agreement* shall mean an agreement binding the Company that provides for the allocation, apportionment, sharing or assignment of any Tax liability or benefit; provided, however, that the following agreements shall be disregarded: (i) commercially reasonable agreements providing for the allocation or payment of real property Taxes attributable to real property leased or occupied by the Company and (ii) commercially reasonable agreements for the allocation or payment of personal property Taxes, sales or use Taxes or value added Taxes with respect to personal property leased, used, owned or sold in the ordinary course of business.

(xxxvi) *Taxing Authority* shall mean a Governmental Entity responsible for the administration of a Tax.

(xxxvii) *Third Party* shall mean any Person (other than the Company s financial and legal advisors) that is not directly or indirectly affiliated with Parent and that is not a representative of any other Person that is a Third Party.

(xxxviii) *Trust Agreement* shall mean the trust agreement substantially in the form of *Exhibit J* hereto by and between Parent and American Stock Transfer & Trust Co., LLC, as trustee, dated as of the Closing Date.

8.2. *Non-Survival of Representations and Warranties*. The representations, warranties and covenants of the Company, Parent and Merger Sub contained in this Agreement, or any instrument delivered pursuant to this Agreement, shall terminate at the Merger Effective Time, except that *Section 5.11* and this *Article VIII* shall survive the Merger Effective Time.

Table of Contents

8.3. *Notices*. All notices and other communications required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been duly given (a) on the date of delivery, if delivered personally or by facsimile, upon confirmation of receipt, (b) on the first Business Day following the date of dispatch if delivered by a recognized next-day courier services or (c) on the third Business Day following the date of mailing if delivered by registered or certified mail, return receipt requested, postage prepaid, to the parties to this Agreement at the following address or to such other address either party to this Agreement shall specify by notice to the other party:

(a) if to Parent or Merger Sub, to:

MediciNova, Inc.

4350 La Jolla Village Drive, Suite 950

San Diego, CA 92122

Attention: Chief Financial Officer

Telephone No.: (858) 373-1500

Facsimile No.: (858) 373-7000

with copies to:

Dechert LLP

1775 I Street, N.W.

Washington, D.C. 20006

Attention: David E. Schulman

Telephone No.: (202) 261-3300

Facsimile No.: (202) 261-3333

(b) if to the Company, to:

Avigen, Inc.

1301 Harbor Bay Parkway

Alameda, CA 94502

Attention: Chief Executive Officer

Telephone No.: (510) 748-7150

Facsimile No.: (510) 749-7155

with copies to:

Cooley Godward Kronish LLP

Five Palo Alto Square

3000 El Camino Road

Palo Alto, CA 94305

Attention: Brett D. White

Telephone No.: (650) 843-5000

Facsimile No.: (650) 849-7400

(c) if to Avigen Representative, to:

Andrew A. Sauter

1301 Harbor Bay Parkway

Alameda, CA 94502

Telephone No.: (510) 748-7150

Facsimile No.: (510) 748-7285

8.4. *Counterparts*. This Agreement may be executed in two or more counterparts, all of which shall be considered the same agreement and shall become effective when one or more counterparts have been signed by each of the parties and delivered to the other party, it being understood that all parties need not sign the same counterpart.

Table of Contents

8.5. *Entire Agreement; Third-Party Beneficiaries*. This Agreement and all exhibits and attachments hereto, including the Certificate of Designations, Exchange Agreement, Company Disclosure Letter, Parent Disclosure Letter and Confidentiality Agreement, (i) constitute the entire agreement among the parties with respect to the subject matter hereof and supersede all prior agreements and understandings, both written and oral, among the parties with respect to the subject matter hereof, it being understood that the Confidentiality Agreement shall continue in full force and effect until the Closing and shall survive any termination of this Agreement and (ii) are not intended to confer upon any other Person any rights or remedies hereunder.

8.6. *Severability*. In the event that any provision of this Agreement or the application thereof, becomes or is declared by a court of competent jurisdiction to be invalid, illegal, void or unenforceable, the remainder of this Agreement will continue in full force and effect and the application of such provision to other Persons or circumstances will be interpreted so as reasonably to effect the intent of the parties hereto. The parties further agree to negotiate in good faith to replace such void or unenforceable provision of this Agreement with a valid and enforceable provision that will achieve, to the greatest extent possible, the economic, business and other purposes of such void or unenforceable provision.

8.7. *Other Remedies; Specific Performance*.

(a) *Other Remedies*. Except as otherwise provided herein, any and all remedies herein expressly conferred upon a party will be deemed cumulative with and not exclusive of any other remedy conferred hereby, or by law or equity upon such party, and the exercise by a party of any one remedy will not preclude the exercise of any other remedy.

(b) *Specific Performance*. The parties hereto agree that irreparable damage would occur in the event that any of the provisions of this Agreement were not performed in accordance with their specific terms or were otherwise breached. It is accordingly agreed that the parties shall be entitled to an injunction or injunctions to prevent breaches of this Agreement and to enforce specifically the terms and provisions hereof in any court of the United States or any state having jurisdiction, this being in addition to any other remedy to which they are entitled at law or in equity.

8.8. *Governing Law*. This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware.

8.9. *Jurisdiction*. Each of the parties hereto irrevocably and unconditionally agrees that any legal action or proceeding with respect to this Agreement and the rights and obligations arising hereunder, or for recognition and enforcement of any judgment in respect of this Agreement and the rights and obligations arising hereunder brought by the other party hereto or its successors or assigns, shall be brought and determined exclusively in the Delaware Court of Chancery and any state appellate court therefrom within the State of Delaware (or, if the Delaware Court of Chancery declines to accept jurisdiction over a particular matter, any state or federal court within the State of Delaware). Each of the parties hereto hereby irrevocably submits with regard to any such action or proceeding for itself and in respect of its property, generally and unconditionally, to the exclusive personal jurisdiction of the aforesaid courts and agrees that it will not bring any action relating to this Agreement or any of the transactions contemplated by this Agreement in any court other than the aforesaid courts. Each of the parties hereto hereby irrevocably waives, and agrees not to assert, by way of motion, as a defense, counterclaim or otherwise, in any action or proceeding with respect to this Agreement, (i) any claim that it is not personally subject to the jurisdiction of the above-named courts for any reason, (ii) any claim that it or its property is exempt or immune from jurisdiction of any such court or from any legal process commenced in such courts (whether through service of notice, attachment prior to judgment, attachment in aid of execution of judgment, execution of judgment or otherwise) and (iii) to the fullest extent permitted by applicable Legal Requirements, any claim that (A) the suit, action or proceeding in such court is brought in an inconvenient forum, (B) the venue of such suit, action or proceeding is improper or (C) this Agreement, or the subject mater hereof, may not be enforced in or by such courts.

Table of Contents

8.10. *Rules of Construction*. The parties hereto agree that they have been represented by counsel during the negotiation and execution of this Agreement and, therefore, waive the application of any law, regulation, holding or rule of construction providing that ambiguities in an agreement or other document will be construed against the party drafting such agreement or document.

8.11. *Assignment*. No party may assign either this Agreement or any of its rights, interests, or obligations hereunder without the prior written approval of the other parties. Any purported assignment in violation of this *Section 8.11* shall be void. Subject to the preceding sentence, this Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and permitted assigns.

8.12. *Waiver of Jury Trial*. EACH PARTY ACKNOWLEDGES AND AGREES THAT ANY CONTROVERSY WHICH MAY ARISE UNDER THIS AGREEMENT IS LIKELY TO INVOLVE COMPLICATED AND DIFFICULT ISSUES, AND THEREFORE IT HEREBY IRREVOCABLY AND UNCONDITIONALLY WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT AND ANY OF THE AGREEMENTS DELIVERED BY THE PARTIES IN CONNECTION HEREWITH OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY. EACH PARTY CERTIFIES AND ACKNOWLEDGES THAT (A) NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PARTY HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PARTY WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE EITHER OF SUCH WAIVERS, (B) IT UNDERSTANDS AND HAS CONSIDERED THE IMPLICATIONS OF SUCH WAIVERS, (C) IT MAKES SUCH WAIVERS VOLUNTARILY, AND (D) IT HAS BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS *SECTION 8.12*.

*****

Table of Contents

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized respective officers as of the date first written above.

MEDICINOVA, INC.

By: /s/ Shintaro Asako
Name: **Shintaro Asako**
Title: **Chief Financial Officer**

ABSOLUTE MERGER, INC.

By: /s/ Shintaro Asako
Name: **Shintaro Asako**
Title: **Chief Executive Officer**

AVIGEN, INC.

By: /s/ Andrew Sauter
Name: **Andrew Sauter**
Title: **Chief Executive Officer and Chief Financial Officer**

Table of Contents

ANNEX B

CONTINGENT PAYMENT RIGHTS AGREEMENT

This CONTINGENT PAYMENT RIGHTS AGREEMENT, dated as of , 2009 (this *Agreement*), is entered into by and among MediciNova, Inc., a Delaware corporation (together with its successors and assigns, *Buyer*), Avigen, Inc., a Delaware corporation (together with its successors and assigns, *Target*), and American Stock Transfer & Trust Company, LLC, a New York limited liability trust company, as rights agent (the *Rights Agent*) and as initial CPR Registrar (as defined herein).

RECITALS

WHEREAS, Buyer, Absolute Merger, Inc., a Delaware corporation and wholly owned Subsidiary (as defined herein) of Buyer (*Merger Sub*), and Target have entered into an Agreement and Plan of Merger dated as of , 2009 (the *Merger Agreement*), pursuant to which Merger Sub will merge with and into Target (the *Merger*), with Target surviving the Merger as a Subsidiary of Buyer;

WHEREAS, pursuant to the Merger Agreement, Buyer agreed to create and issue to holders of record of shares of Target s common stock, par value $0.001 per share (the *Target Common Stock*) immediately prior to the effective time of the Merger (the *Effective Time*) contingent payment rights issued by Buyer pursuant to the Merger Agreement and this Agreement (the *CPRs*);

WHEREAS, the CPRs are not securities under the U.S. securities laws as (i) the rights to payment pursuant to the CPRs are an integral part of the consideration for the Merger, (ii) the CPRs carry no voting or dividend rights, (iii) the CPRs do not bear a stated rate of interest, (iv) the CPRs will not be assignable or transferable except by will, the laws of intestacy or other operation of law, (v) the CPRs will not be represented by any form of certificate or instrument, (vi) the CPRs will not represent any equity or ownership interest in the Buyer and (vii) the contingent payments pursuant to the CPRs are not dependent on the operating results of Buyer; and

WHEREAS, each holder of Target Common Stock immediately prior to the Effective Time will receive as a portion of the Merger consideration the right to receive upon the Effective Time one CPR for each share of Target Common Stock held immediately prior to the Effective Time;

NOW, THEREFORE, for and in consideration of the premises and the consummation of the Merger, it is mutually covenanted and agreed, for the equal and proportionate benefit of all Holders (as defined herein), as follows:

Table of Contents

ARTICLE I

DEFINITIONS

Section 1.1. Definitions.

(a) For all purposes of this Agreement, except as otherwise expressly provided or unless the context otherwise requires:

(i) the terms defined in this *Article I* have the meanings assigned to them in this *Article I* and include the singular and plural;

(ii) all accounting terms used herein and not expressly defined herein shall have the meanings assigned to such terms in accordance with U.S. generally accepted accounting principles, as in effect on the date hereof;

(iii) the words herein, hereof and hereunder and other words of similar import refer to this Agreement as a whole and not to any particular Article, Section or other subdivision;

(iv) unless the context otherwise requires, words describing the singular number shall include the plural and vice versa, words denoting any gender shall include all genders and words denoting natural Persons shall include corporations, partnerships and other Persons and vice versa; and

(v) all references to including shall be deemed to mean including without limitation.

(b) Capitalized terms used but not otherwise defined herein shall have the meanings ascribed thereto in the Merger Agreement. The following terms shall have the meanings ascribed to them as follows:

Agreement has the meaning set forth in the Preamble.

Assignment Agreement means the Assignment Agreement dated December 19, 2005, by and between Genzyme and Target, as amended through the date hereof.

Board of Directors means the board of directors of Buyer.

Board Resolution means a copy of a resolution certified by the secretary or an assistant secretary of Buyer to have been duly adopted by the Board of Directors and to be in full force and effect on the date of such certification and delivered to the Rights Agent.

Business Day means any day other than a Saturday, Sunday or a day on which commercial banks in New York, New York are authorized or obligated by law or executive order to close.

Buyer has the meaning set forth in the Preamble.

Code means the U.S. Internal Revenue Code of 1986, as amended, including any successor provisions and transition rules, whether or not codified.

Continuing Target Warrant means the Target s unexercised and outstanding warrant to subscribe for 15,000 shares of Target s common stock, par value $0.001, that is not cancellable unilaterally by the Target in the Merger and which, upon exercise, either before or after the consummation of the Merger, shall entitle the holder of such warrant to the number of CPRs to which such holder would have been entitled if such warrant had been exercised prior to the closing of the Merger. Upon the exercise of the Continuing Target Warrant, the holder thereof shall become a *Holder* for all purposes of this Agreement.

CPR Payment Amount means, (i) in the event the First Milestone Event occurs on or after the date hereof but before the Termination Date, six million dollars ($6,000,000) or such lesser cash amount paid by Genzyme

Table of Contents

less any of Buyer s or its Subsidiaries out-of-pocket costs, damages, fines, penalties and expenses, including litigation expenses and Taxes, incurred in enforcing the rights of Target (or its successors and assigns) to receive the First Milestone Payment under the Assignment Agreement or in connection with consummating the Parkinson s Product Sale less any expenses paid by Buyer on or after June 30, 2010 pursuant to *Section 7.2(h)*, (ii) in the event of any Parkinson s Product Sale on or after the date hereof but before the Termination Date, fifty percent (50%) of the difference between (A) the proceeds received in cash by Buyer in respect of such Parkinson s Product Sale and (B) any of Buyer s or its Subsidiaries out-of-pocket costs, damages, fines, penalties and expenses, including litigation expenses and Taxes, incurred in enforcing the rights of Target (or its successors and assigns) to receive the First Milestone Payment under the Assignment Agreement or in connection with consummating the Parkinson s Product Sale less any expenses paid by Buyer on or after June 30, 2010 pursuant to *Section 7.2(h)* and (iii) in the event of the termination of the Plan Trust, the Plan Trust Remainder less any of Buyer s or its Subsidiaries out-of-pocket costs, damages, fines, penalties and expenses, including litigation expenses and Taxes, incurred in connection with terminating the Plan Trust. For the avoidance of doubt, CPR Payment Amount shall in no event include any amounts included in Genzyme Settlement Amount (as defined in the Merger Agreement).

CPR Payment Date has the meaning set forth in *Section 2.4(e)*.

CPR Payment Deductions has the meaning set forth in *Section 2.4(h)*.

CPR Payment Event means the occurrence of the (i) First Milestone Event, (ii) Parkinson s Product Sale or (iii) termination of the Plan Trust.

CPR Payment Receipt means any receipt in cash by Buyer, Target or any of their Subsidiaries of any portion of a CPR Payment Amount.

CPR Register has the meaning set forth in *Section 2.3(b)*.

CPR Registrar has the meaning set forth in *Section 2.3(b)*.

CPRs has the meaning set forth in the Recitals.

Effective Time has the meaning set forth in the Recitals.

Exchange Act means the Securities Exchange Act of 1934, as amended.

First Milestone Event means the occurrence of an event in Section 4.4 of the Assignment Agreement that would require Genzyme to pay the First Milestone Payment.

First Milestone Payment means the six million dollar ($6,000,000) payment set forth in Part A of Schedule 3.2 of the Assignment Agreement.

Genzyme means Genzyme Corporation, a Massachusetts corporation, and its successors or assigns under the Assignment Agreement.

Governmental Authority means: (i) any government, state, province or other political subdivision thereof; (ii) any entity exercising executive, legislative, judicial, regulatory or administration functions of or pertaining to government; (iii) any government authority, agency, department, board, tribunal, commission or instrumentality of the United States of America, any foreign government, any state of the United States of America or any municipality or other political subdivision thereof; (iv) any court, tribunal or arbitrations of competent jurisdiction; and (v) any governmental or non-governmental self-regulatory organization, agency or authority.

Table of Contents

Holder means a Person in whose name a CPR is registered in the CPR Register.

Holder Representative means Andrew A. Sauter or any successor person appointed in accordance with *Section 7.3*.

Merger has the meaning set forth in the Recitals.

Merger Agreement has the meaning set forth in the Recitals.

Merger Sub has the meaning set forth in the Recitals.

Notice of Objection has the meaning set forth in *Section 2.4(d)*.

Objection Period had the meaning set forth in *Section 2.4(d)*.

Officer s Certificate means a certificate signed by the chief executive officer, president, chief financial officer, any vice president, the controller, the treasurer or the secretary, in each case of Buyer, in his or her capacity as such an officer, and delivered to the Rights Agent.

Management Transition Plan Trust Agreement means the management transition plan trust agreement dated as of December 15, 2008 by and between Target and Wells Fargo Bank, N.A.

Parkinson s Product Sale means, in the event the First Milestone Event has not occurred, the sale, license, transfer or other disposition by Buyer, Target or any of their Subsidiaries of the Parkinson s Product (as defined in the Assignment Agreement) if pursuant to Section 9.6 of the Assignment Agreement Genzyme causes the Parkinson s Product to revert to Target.

Payment Notice has the meaning set forth in *Section 2.4(a)*.

Permitted Transfer means: (i) the transfer of any or all of the CPRs (upon the death of the Holder) by will or intestacy; (ii) transfer by instrument to an inter vivos or testamentary trust in which the CPRs are to be passed to beneficiaries upon the death of the trustee; (iii) transfers made pursuant to a court order of a court of competent jurisdiction (such as in connection with divorce, bankruptcy or liquidation); or (iv) a transfer made by operation of law (including a consolidation or merger) or in connection with the dissolution, liquidation or termination of any corporation, limited liability company, partnership or other entity.

Person means any individual, corporation, partnership, joint venture, estate, trust, company (including any limited liability company or joint stock company), firm, Governmental Authority or other enterprise, association, organization or entity.

Plan Trust means the trust established pursuant to the Management Transition Plan Trust Agreement.

Plan Trust Remainder means the amount of money in the Plan Trust upon the termination of such trust less any payments required to be made under the Management Transition Plan Trust Agreement and less applicable Taxes and legal fees and other expenses paid or payable in connection with the Plan Trust. The Plan Trust Remainder currently is estimated to be $550,000.

Pro Rata Share means, as of the close of business on the date of a CPR Payment Event, the quotient of the (i) sum of all of the CPRs held of record by such Holder on such date divided by (ii) sum of all outstanding CPRs.

Table of Contents

Rights Agent means the Rights Agent named in the Preamble, until a successor Rights Agent shall have become such pursuant to the applicable provisions of this Agreement, and thereafter *Rights Agent* shall mean such successor Rights Agent.

Rights Agent Fee means the fee of the Rights Agent to act in such capacity pursuant to the terms of this Agreement as set forth on *Schedule 1* hereto.

SEC means the Securities and Exchange Commission.

Securities Act means the Securities Act of 1933, as amended.

Subsidiary means any corporation, partnership, joint venture or other legal entity of which any Person (either alone or through or together with another Subsidiary), owns, directly or indirectly, more than 50% of the stock or other equity interests the holders of which are generally entitled to vote for the election of the board of directors or other governing body of such corporation or other legal entity.

Surviving Person has the meaning set forth in *Section 6.1(a)*.

Target has the meaning set forth in the Preamble.

Target Common Stock has the meaning set forth in the Recitals.

Tax means any and all taxes payable to any federal, state, local or foreign taxing authority or agency, including (i) income, franchise, profits, gross receipts, minimum, alternative minimum, estimated, ad valorem, value added, sales, use, service, real or personal property, capital stock, license, payroll, withholding, disability, employment, social security, workers compensation, unemployment, utility, severance, excise, stamp, windfall profits, transfer or other tax of any kind whatsoever, (ii) interest thereon and (iii) penalties and additions to tax imposed with respect thereto.

Termination Date the , 2011 [the 20 month anniversary of the date of this Agreement].

Termination Certificate has the meaning set forth in *Section 2.4(b)*.

ARTICLE II

CONTINGENT PAYMENT RIGHTS

Section 2.1. Issuance of CPRs; Appointment of Rights Agent.

(a) The CPRs shall be issued pursuant to the Merger Agreement at the time and in the manner set forth in the Merger Agreement. The registration and the administration of the CPRs shall be handled pursuant to this Agreement in the manner set forth in this Agreement.

(b) Buyer hereby appoints American Stock Transfer & Trust Company, LLC as the Rights Agent to act as Rights Agent for Buyer in accordance with the terms and conditions set forth in this Agreement, and the Rights Agent hereby accepts such appointment.

(c) By its receipt of the CPRs, each Holder hereby appoints the Holder Representative to act as the Holder Representative in accordance with the terms and conditions set forth in this Agreement and as shall be further specified to Holder Representative in writing by a majority in interest of the Holders, and the Holder Representative hereby accepts such appointment. Without limiting the generality of the foregoing, each Holder hereby authorizes Holder Representative to act on such Holder s behalf to enforce the terms of this Agreement.

Table of Contents

Section 2.2. Nontransferable.

The CPRs shall not be sold, assigned, transferred, pledged, encumbered or in any other manner transferred or disposed of, in whole or in part, other than through a Permitted Transfer.

Section 2.3. No Certificate; Registration; Registration of Transfer; Change of Address.

(a) The CPRs shall not be evidenced by a certificate or other instrument.

(b) The Rights Agent shall keep a register (the *CPR Register*) for the registration of CPRs. The CPR Register shall set forth the name and address of each Holder, the number of CPRs held by such Holder and the Tax Identification Number of each Holder. A Holder may make a written request to the CPR Registrar to change such Holder s address of record in the CPR Register following receipt of which the CPR Registrar shall promptly record such change in the CPR Register. The Buyer may receive and inspect a copy of the CPR Register, from time to time, upon written request made to the CPR Registrar. Within five (5) Business Days after receipt of such request, the CPR Registrar shall deliver a copy of the CPR Register, as then in effect, to Buyer at the address set forth in *Section 8.1*. The Rights Agent is hereby appointed initial *CPR Registrar* for the purpose of registering CPRs and transfers of CPRs as herein provided.

(c) Subject to the restrictions on transferability set forth in *Section 2.2*, every request made to transfer a CPR must be in writing and accompanied by a written instrument or instruments of transfer and any other requested documentation in form reasonably satisfactory to Buyer and the CPR Registrar, properly completed and duly executed by the registered Holder or Holders thereof or by the duly appointed legal representative thereof or by a duly authorized attorney, such signature to be authenticated by a medallion signature guarantee. A request for a transfer of a CPR shall be accompanied by such documentation, including an opinion of counsel reasonably satisfactory to Buyer and the CPR Registrar, establishing satisfaction that the transfer is a Permitted Transfer as may be reasonably requested by Buyer and the CPR Registrar. Upon receipt of such written notice by Buyer and the CPR Registrar, the CPR Registrar shall, subject to the Buyer s confirmation in writing to the CPR Registrar that the transfer instrument is in proper form and the transfer otherwise complies with the other terms and conditions herein, register the transfer of the CPRs in the CPR Register. All duly transferred CPRs registered in the CPR Register shall be the valid and binding obligations of Buyer, evidencing the same rights, and entitling the transferee to the same benefits and rights under this Agreement as those held by the transferor. No transfer of a CPR shall be valid until registered in the CPR Register, and any transfer not duly registered in the CPR Register shall be void. Any transfer or assignment of the CPRs shall be without charge (other than the cost of any transfer Tax or other governmental charge which shall be the responsibility of the transferor) to the Holder.

Section 2.4. Payment Procedures.

(a) Pursuant to each CPR Payment Event that occurs after the Merger Effective Time (as defined in the Merger Agreement) and prior to the Termination Date, upon any CPR Payment Receipt, Buyer shall within five (5) Business Days following the date of such CPR Payment Receipt deliver to the Rights Agent written notice (each such notice, a *Payment Notice*) specifying the date of the CPR Payment Receipt, the aggregate amount of the CPR Payment Receipt and the per-CPR amount of the portion of the CPR Payment Amount to be paid on the applicable CPR Payment Date (and the calculations relating thereto).

(b) If, prior to the Termination Date, both the First Milestone Event and Parkinson s Product Sale have not occurred and no amounts were payable to Buyer upon termination of the Plan Trust, no later than five (5) Business Days after the Termination Date, Buyer shall deliver to the Rights Agent a certificate (the *Termination Certificate*) certifying that the applicable CPR Payment Events have not occurred and that the CPRs have expired.

(c) The Rights Agent shall, within two (2) Business Days after receipt of a Payment Notice or Termination Certificate provided by Buyer, send each Holder and the holder of Continuing Target Warrant a copy thereof,

together with a brief statement describing the information and objection rights set forth in *Section 2.4(d)*, at his, her or its address as reflected in the CPR Register as of the date the Rights Agent received such notice or certificate.

(d) After receipt of a Payment Notice or Termination Certificate, Buyer shall promptly furnish to Rights Agent and the Holder Representative any information and documentation in connection with this Agreement and the CPRs that the Rights Agent, the Holder Representative or any Holder or Holders of at least 5% of the outstanding CPRs may reasonably request in connection with the enforcement of the Holders rights under this Agreement, the determination of whether a CPR Payment Event has occurred and the determination of CPR Payment Amount. Subject to execution by the Holders requesting such information of a customary confidentiality agreement, the Rights Agent shall forward any such information and documentation to such Holders. Notwithstanding the foregoing, Buyer shall not be required to disclose any information, the disclosure of which would result in the breach of any confidentiality obligations of Target under the Assignment Agreement; provided that Buyer and Target use commercially reasonable efforts to obtain the consent of Genzyme pursuant to Section 7.3 of the Assignment Agreement to any disclosure of the Assignment Agreement to the Rights Agent.

(e) Upon written notice by the Holder Representative or any Holders of at least 25% in the aggregate of the outstanding CPRs received by the Rights Agent within twenty (20) Business Days after distribution by the Rights Agent of a Payment Notice or a Termination Certificate (as such period may be extended to that date ten (10) Business Days following that date all information reasonably requested pursuant to *Section 2.4(d)* above shall have been delivered to the Holder Representative and the Holder) (the *Objection Period*), the Rights Agent shall forward such notice to Buyer, which notice must certify, as appropriate, that the notice is given by the Holder Representative or such Holders as hold at least 25% in the aggregate of the outstanding CPRs, and further shall specify that the Holder Representative or such Holders object to any determination of Buyer (i) that the First Milestone Event, the Parkinson s Product Sale or the termination of the Plan Trust has not occurred, as applicable, or (ii) of the aggregate portion of the applicable CPR Payment Amount payable to the Holders, as applicable (a *Notice of Objection*). Any dispute arising from a Notice of Objection related to a Payment Notice shall be resolved by Buyer, the Holder Representative and Holders in accordance with the procedures set forth in *Section 8.7*, which decision shall be binding on the parties hereto, the Holder Representative and the Holders, and Buyer, the Holder Representative and Holders shall provide the Rights Agent with joint written direction specifying the resolution of any dispute pursuant to this *Section 2.4(e)*, following which the Rights Agent shall act in accordance with such direction.

(f) If Buyer delivers a Payment Notice to the Rights Agent or if all or a portion of the applicable CPR Payment Amount is determined to be payable pursuant to *Section 2.4(e)* above, Buyer shall establish a CPR Payment Date that is within fifteen (15) Business Days of the date of the Payment Notice or the date of final determination pursuant to *Section 2.4(e)* above, as applicable, and shall notify the Rights Agent of such date in writing (the *CPR Payment Date*).

(g) Buyer shall deliver the applicable portion of the CPR Payment Amount, in immediately payable funds, to the Rights Agent at least three (3) Business Days prior to the CPR Payment Date; *provided* that if Buyer has received a Notice of Objection in regards to any portion of such CPR Payment Amount, Buyer shall have no obligation to provide any funds to the Rights Agent until after the date of final determination of the amount payable pursuant to *Section 2.4(e)* above.

(h) On any CPR Payment Date, the Rights Agent shall send to each Holder its Pro Rata Share of the applicable portion of the CPR Payment Amount, subject to any CPR Payment Deductions, (i) by check mailed to the address of each Holder (or any successor or permitted transferee or assignee thereof) as reflected in the CPR Register as of the close of business on the day that is five (5) Business Days prior to the date that the Rights Agent performs its obligations under this *Section 2.4*, or (ii) with respect to any Holder that is due payment in excess of five hundred thousand dollars ($500,000) who has provided to the Rights Agent wire instructions, by wire transfer of immediately available funds in accordance with such wire instructions.

Table of Contents

(i) The Rights Agent shall deduct and withhold, or cause to be deducted or withheld, from each Holder s Pro Rata Share of any CPR Payment Amount otherwise payable pursuant to this Agreement, the amounts, if any, that Buyer or a Subsidiary of Buyer is required to deduct and withhold with respect to the making of such payment under the Code or any state, local or foreign tax law; *provided*, that in determining the required amount to be withheld, the Rights Agent will give effect to any properly presented form (e.g., Form W-8 or W-9, as applicable) eliminating or reducing the amount required to be withheld. To the extent that amounts are so withheld or paid over to or deposited with the relevant Governmental Authority, such withheld amounts shall be treated for all purposes of this Agreement as having been paid to the Holder in respect of which such deduction and withholding was made (the *CPR Payment Deductions*).

(j) The Rights Agent shall have no duty or obligation to verify or confirm the accuracy, validity or sufficiency of any amounts paid pursuant to this *Section 2.4* and shall have no duty or obligation to verify or confirm whether a CPR Payment Event has occurred.

(k) If no CPR Payment Event occurs prior to the Termination Date, subject to *Section 2.4(d)*, the CPRs shall expire worthless, and all rights thereunder and all rights in respect thereof under this Agreement shall cease in accordance with *Section 8.10*.

Section 2.5. No Voting, Dividends or Interest; No Equity or Ownership Interest in Buyer.

The CPRs shall not have any voting or dividend rights, and interest shall not accrue on any amounts payable on the CPRs to any Holder. Furthermore, the CPRs shall not represent any equity or ownership interest in Buyer or in any constituent company to the Merger.

ARTICLE III

THE RIGHTS AGENT

Section 3.1. Certain Duties and Responsibilities.

The Rights Agent shall not have any liability for any actions taken or not taken in connection with this Agreement, except to the extent of its willful misconduct, bad faith or gross negligence. No provision of this Agreement shall require the Rights Agent to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder or in the exercise of any of its rights or powers.

Section 3.2. Certain Rights of Rights Agent.

The Rights Agent undertakes to perform only such express duties and obligations as are specifically set forth in this Agreement, and no implied duties or obligations shall be read into this Agreement against the Rights Agent. In addition:

(a) the Rights Agent may rely and shall be protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;

(b) whenever the Rights Agent shall deem it necessary or desirable that a fact or matter be proved or established prior to taking, suffering or omitting any action hereunder, the Rights Agent may, in the absence of willful misconduct, bad faith or gross negligence on its part, rely upon an Officer s Certificate;

(c) the Rights Agent may consult with, and obtain advice from, legal counsel in the event of any question as to any of the provisions hereof or the duties hereunder, and it shall incur no liability and shall be deemed to be acting in accordance with the opinion and instructions of such counsel. The Rights Agent may perform any and all of its duties through its agents, representatives, attorneys, custodians and/or nominees;

(d) if the Rights Agent becomes involved in litigation on account of this Agreement, it shall have the right to retain counsel subject to the terms and conditions of this Agreement and shall be entitled to reimbursement for all reasonable documented costs and expenses related thereto as provided in *Section 3.2(i)* hereof; *provided*, *however*, that the Rights Agent shall not be entitled to any such reimbursement to the extent such litigation ultimately determines that the Rights Agent acted with willful misconduct, bad faith or gross negligence;

(e) in the event that conflicting demands are made upon the Rights Agent for any situation addressed or not addressed in this Agreement, the Rights Agent may withhold performance of the terms of this Agreement until such time as said conflicting demands shall have been withdrawn or the rights of the respective parties shall have been settled by court adjudication, arbitration, joint order or otherwise;

(f) the permissive rights of the Rights Agent to do things enumerated in this Agreement shall not be construed as a duty;

(g) the Rights Agent shall not be required to give any note or surety in respect of the execution of such powers or otherwise in respect of the premises;

(h) Buyer agrees to indemnify the Rights Agent for, and hold the Rights Agent harmless against, any loss, liability, claim, demands, suits or expense arising out of or in connection with the Rights Agent s duties under this Agreement, including the costs and expenses of defending the Rights Agent against any claims, charges, demands, suits or loss, unless such loss shall have been caused by the Rights Agent s willful misconduct, bad faith or gross negligence; and

(i) Notwithstanding anything to the contrary in this Agreement, Buyer only agrees to pay the fees and expenses of the Rights Agent in connection with this Agreement, as set forth on *Schedule 1* hereto. An invoice for the Rights Agent Fee will be rendered a reasonable time prior to, and paid on, the Effective Time. An invoice for any out-of-pocket expenses and per item fees realized (subject to the terms and conditions of this Agreement) will be rendered and payable within thirty (30) days after receipt by Buyer, except for postage and mailing expenses, which funds must be received by the Rights Agent one (1) Business Day prior to the scheduled mailing date.

Section 3.3. Resignation and Removal; Appointment of Successor.

(a) The Rights Agent may resign at any time by giving written notice thereof to Buyer specifying a date when such resignation shall take effect, which notice shall be sent at least thirty (30) days prior to the date so specified.

(b) If the Rights Agent shall resign, be removed or become incapable of acting, Buyer, by way of a Board Resolution, shall promptly appoint a qualified successor Rights Agent who may be a Holder but shall not be an affiliate of Buyer. The successor Rights Agent so appointed shall, forthwith upon its acceptance of such appointment in accordance with this *Section 3.3(b)*, become the successor Rights Agent. The retiring Rights Agent shall deliver all relevant books and records to the successor Rights Agent. *Section 3.2(h)* shall survive any resignation or removal of any Rights Agent.

(c) Buyer shall give notice of each resignation and each removal of a Rights Agent and each appointment of a successor Rights Agent by issuing a press release, which shall include the name and address of the successor Rights Agent, within four (4) Business Days announcing such event. Failure to give any notice provided for in this *Section 3.3(c)*, however, or any defect therein, shall not affect the legality or validity of the resignation or removal of the Rights Agent or the appointment of a successor Rights Agent, as the case may be.

(d) If a successor Rights Agent has not been appointed and has not accepted such appointment by the end of the thirty (30) calendar day period after the resignation, removal or incapacity of the retiring Rights Agent, the

Table of Contents

retiring Rights Agent may apply to a court of competent jurisdiction for the appointment of a successor Rights Agent, and the costs, expenses and reasonable attorneys fees which are incurred in connection with such a proceeding shall be paid in accordance with *Section 3.2(i)* hereof. Any such successor to the retiring Rights Agent shall agree to be bound by the terms of this Agreement, and the retiring Rights Agent shall provide the successor Rights Agent with all relevant books and records. Upon delivery of all of the relevant books and records, pursuant to the terms of this *Section 3.3(d)* to a successor Rights Agent, the retiring Rights Agent shall thereafter be discharged from any further obligations hereunder and the successor Rights Agent shall become the Rights Agent hereunder. The Rights Agent is hereby authorized, in any and all events, to comply with and obey any and all final judgments, orders and decrees of any court of competent jurisdiction which may be filed, entered or issued, and all final arbitration awards and, if it shall so comply or obey, it shall not be liable to any other Person by reason of such compliance or obedience.

Section 3.4. Acceptance of Appointment by Successor.

Every successor Rights Agent appointed hereunder shall execute, acknowledge and deliver to Buyer and to the retiring Rights Agent an instrument accepting such appointment and a counterpart of this Agreement, and thereupon such successor Rights Agent, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Rights Agent; *provided*, that upon the request of Buyer or the successor Rights Agent, such retiring Rights Agent shall execute and deliver an instrument transferring to such successor Rights Agent all the rights, powers and trusts of the retiring Rights Agent.

ARTICLE IV

COVENANTS

Section 4.1. List of Holders.

(a) Buyer shall furnish or cause to be furnished to the Rights Agent and Holder Representative (i) in such form as Buyer receives from its transfer agent (or other agent performing similar services for Buyer), the names, addresses and shareholdings of the Holders within five (5) Business Days of the Effective Time, and (ii) at such other times as the Rights Agent or Holder Representative may request in writing, within five (5) days after receipt by Buyer of any such request, a list, in such form as Buyer receives from the CPR Registrar, of the names and the addresses of the Holders as of a date not more than fifteen (15) days prior to the time such list is furnished. Buyer shall also furnish or cause to be furnished to the Rights Agent with respect to the holder of the Continuing Target Warrant in such form as received from its transfer agent (or other agent performing similar services for Buyer), such holder s name, address and the number of CPRs issuable upon exercise of such Continuing Target Warrant.

(b) Buyer shall have no obligation to furnish or cause to be furnished required information pursuant to *Section 4.1(a)* to the Rights Agent to the extent that the Rights Agent serves as Buyer s transfer agent (or other agent performing similar services for Buyer) or the CPR Registrar, as applicable.

Section 4.2. Ability to Make Prompt Payment.

Neither Buyer, Target nor any of their respective Subsidiaries shall enter into any agreement that (i) would prohibit or restrict Buyer s or the Rights Agent s ability to pay the CPR Payment Amounts, subject to any CPR Payment Deductions, to the Holders under this Agreement, or (ii) in the case of Target or any such Subsidiary, restrict Target or such Subsidiary from distributing any CPR Payment Amounts.

Section 4.3. No Assignment.

Buyer shall not, in whole or in part, assign any of its rights or obligations under this Agreement other than in accordance with the terms of *Section 6.1*.

Table of Contents

Section 4.4. Negative Pledge; Assignment Agreement.

Buyer and Target shall not, and shall not permit any of their respective Subsidiaries to:

(a) except as permitted under *Section 4.5* or as contemplated by *Article VI*, transfer, assign, or otherwise dispose, or permit or suffer to exist any lien, pledge or other encumbrance, on any of their respective rights to receive the First Milestone Payment under the Assignment Agreement upon the occurrence of the First Milestone Event;

(b) take any action that would permit Genzyme to terminate, or that would otherwise excuse, delay, reduce or otherwise impair Genzyme s obligation to make the First Milestone Payment upon the occurrence of the First Milestone Event; or

(c) terminate, amend, supplement or otherwise modify the Assignment Agreement in a manner that would excuse, delay, reduce or otherwise impair the rights of Target to receive the First Milestone Payment upon the occurrence of a CPR Payment Event.

Section 4.5. Affirmative Covenants.

Buyer and Target shall use commercially reasonable efforts (which may include the commencement of litigation against Genzyme) to enforce Target s (or its successors and assigns) rights and remedies under the Assignment Agreement as such rights and remedies relate to the First Milestone Payment; provided, however that neither Buyer nor Target shall have any obligation to incur any out-of-pocket expenses in connection with such enforcement.

Section 4.6. Registration.

If required pursuant to applicable U.S. securities laws, Buyer shall file a registration statement regarding the CPRs under the Securities Act, and Buyer covenants and agrees:

(a) to use its commercially reasonable efforts, subject to the SEC declaring the effectiveness of the registration statement, to cause the registration statement to remain effective until the Termination Date, including preparing and filing with the SEC such amendments and supplements to the registration statement and the prospectus used in connection therewith as may be necessary to effect the foregoing;

(b) to use its commercially reasonable efforts to register or qualify the CPRs under the securities or blue sky laws of each jurisdiction in which such registration or qualification is necessary.

In addition, the Rights Agent will not be under any duty or responsibility to insure compliance with any applicable federal or state securities laws, including but not limited to the Securities Act and the Exchange Act, in connection with the issuance, transfer, exchange, registration or qualification of the CPRs.

ARTICLE V

AMENDMENTS

Section 5.1. Amendments Without Consent of Holders.

(a) Without the consent of any Holders, Holder Representative or the Rights Agent, Buyer, when authorized by a Board Resolution, at any time and from time to time, may enter into one or more amendments hereto, for any of the following purposes:

(i) to evidence the succession of another Person to Buyer and the assumption by any such successor of the covenants and obligations of Buyer herein in a transaction contemplated by *Section 6.1* hereof; or

Table of Contents

(ii) to evidence the termination of the CPR Registrar and the succession of another Person as a successor CPR Registrar and the assumption by any successor of the obligations of the CPR Registrar herein.

(b) Without the consent of any Holders or Holder Representative, Buyer, when authorized by a Board Resolution, and the Rights Agent, in the Rights Agent s sole and absolute discretion, at any time and from time to time, may enter into one or more amendments hereto, for any of the following purposes:

(i) to evidence the succession of another Person as a successor Rights Agent and the assumption by any successor of the covenants and obligations of the Rights Agent herein;

(ii) to add to the covenants of Buyer such further covenants, restrictions, conditions or provisions as the Board of Directors and the Rights Agent shall consider to be for the protection of the Holders; *provided* that, in each case, such provisions shall not adversely affect the interests of the Holders.

(iii) to cure any ambiguity, to correct or supplement any provision herein that may be defective or inconsistent with any other provision herein, or to make any other provisions with respect to matters or questions arising under this Agreement; *provided* that, in each case, such provisions shall not adversely affect the interests of the Holders.

(iv) as may be necessary or appropriate to ensure that the CPRs are not subject to registration under the Securities Act or the Exchange Act; or

(v) to add, eliminate or change any provision of this Agreement unless such addition, elimination or change is materially adverse to the interests of the Holders.

(c) Promptly after the execution by Buyer and the Rights Agent of any amendment pursuant to the provisions of this *Section 5.1*, Buyer shall mail a notice thereof by first-class mail to each of the Holders at their addresses as they shall appear on the CPR Register, setting forth in general terms the substance of such amendment.

Section 5.2. Amendments With Consent of Holders.

(a) Subject to *Section 5.1* (which amendments pursuant to *Section 5.1* may be made without the consent of the Holders), with the consent of the Holders of not less than a majority of the outstanding CPRs, whether evidenced in writing or taken at a meeting of the Holders, Buyer, when authorized by a Board Resolution, and the Rights Agent may enter into one or more amendments hereto for the purpose of adding, eliminating or changing any provisions of this Agreement, even if such addition, elimination or change is in any way materially adverse to the interests of the Holders.

(b) Promptly after the execution by Buyer and the Rights Agent of any amendment pursuant to the provisions of this *Section 5.2*, Buyer shall mail a notice thereof by first-class mail to the Holder Representative and the Holders at their addresses as they shall appear on the CPR Register, setting forth in general terms the substance of such amendment.

Section 5.3. Execution of Amendments.

Prior to executing any amendment permitted by this *Article V*, the Rights Agent shall be entitled to receive, and shall be fully protected in relying upon, an Officer s Certificate and an opinion of counsel stating that the execution of such amendment is authorized or permitted by this Agreement. Notwithstanding anything herein to the contrary, each of the Rights Agent and Holder Representative may, but is not obligated to, enter into any such amendment that affects the it s own rights, privileges, covenants, duties, obligations or immunities under this Agreement or otherwise.

Table of Contents

Section 5.4. Effect of Amendments.

Upon the execution of any amendment under this *Article V*, this Agreement shall be modified in accordance therewith, such amendment shall form a part of this Agreement for all purposes and every Holder shall be bound thereby.

ARTICLE VI

CONSOLIDATION, MERGER, SALE OR CONVEYANCE

Section 6.1. Buyer May Consolidate, Etc.

Buyer shall not consolidate with or merge into any other Person or convey, transfer or lease its properties and assets substantially as an entirety to any Person, unless:

(a) the Person formed by such consolidation or into which Buyer is merged or the Person that acquires by conveyance or transfer, or that leases, the properties and assets of Buyer substantially as an entirety (the *Surviving Person*) shall expressly assume payment of amounts on all the CPRs and the performance of every duty and covenant of this Agreement on the part of Buyer to be performed or observed; and

(b) Buyer has delivered to the Rights Agent an Officer s Certificate and an opinion of counsel, stating that such consolidation, merger, conveyance, transfer or lease complies with this *Article VI* and that all conditions precedent herein provided for relating to such transaction have been complied with.

Section 6.2. Successor Substituted.

Upon any consolidation of or merger by Buyer with or into any other Person, or any conveyance, transfer or lease of the properties and assets substantially as an entirety to any Person in accordance with *Section 6.1*, the Surviving Person shall succeed to, and be substituted for, and may exercise every right and power of Buyer under this Agreement with the same effect as if the Surviving Person had been named as Buyer herein, and thereafter, except in the case of a lease, Buyer or, if applicable, any other predecessor Person shall be relieved of all obligations and covenants under this Agreement and the CPRs.

ARTICLE VII

THE HOLDER REPRESENTATIVE

Section 7.1. Certain Duties and Responsibilities.

The Holder Representative shall not have any liability for any actions taken or not taken in connection with this Agreement, except to the extent of its willful misconduct, bad faith or gross negligence. No provision of this Agreement shall require the Holder Representative to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder or in the exercise of any of its rights or powers.

Section 7.2. Certain Rights of Holder Representative.

The Holder Representative undertakes to perform only such express duties and obligations as are specifically set forth in this Agreement, and no implied duties or obligations shall be read into this Agreement against the Holder Representative. In addition:

(a) the Holder Representative may rely and shall be protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order or other

paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;

(b) whenever the Holder Representative shall deem it necessary or desirable that a fact or matter be proved or established prior to taking, suffering or omitting any action hereunder, the Holder Representative may, in the absence of willful misconduct, bad faith or gross negligence on its part, rely upon an Officer s Certificate;

(c) the Holder Representative may consult with, and obtain advice from, legal counsel in the event of any question as to any of the provisions hereof or the duties hereunder, and it shall incur no liability and shall be deemed to be acting in accordance with the opinion and instructions of such counsel. The Holder Representative may perform any and all of its duties through its agents, representatives, attorneys, custodians and/or nominees;

(d) if the Holder Representative becomes involved in litigation on account of this Agreement, it shall have the right to retain counsel and shall be entitled to reimbursement for all reasonable documented costs and expenses related thereto as provided in *Section 7.2(h)* hereof; *provided*, *however*, that the Holder Representative shall not be entitled to any such reimbursement to the extent such litigation ultimately determines that the Rights Agent acted with willful misconduct, bad faith or gross negligence;

(e) in the event that conflicting demands are made upon the Holder Representative for any situation addressed or not addressed in this Agreement, the Holder Representative may withhold performance of the terms of this Agreement until such time as said conflicting demands shall have been withdrawn or the rights of the respective parties shall have been settled by court adjudication, arbitration, joint order or otherwise;

(f) the permissive rights of the Holder Representative to do things enumerated in this Agreement shall not be construed as a duty;

(g) the Holder Representative shall not be required to give any note or surety in respect of the execution of such powers or otherwise in respect of the premises; and

(h) Buyer agrees to pay the fees and expenses of the Holder Representative in connection with this Agreement, as set forth on *Schedule 2* hereto. An itemized invoice for any out-of-pocket expenses and per item fees realized must be rendered to Buyer on June 30, 2010 for all expenses incurred prior to such date. Any subsequent invoices must be rendered to Buyer no later than the earlier of (i) the CPR Payment Date associated with the CPR Payment Event in connection with such expenses were incurred and (ii) the Termination Date. With respect to postage and mailing expenses, funds for postage and mailing expenses must be received by the Holder Representative one (1) Business Day prior to the scheduled mailing date. All invoices related to Holder Representative s expenses will be payable by Buyer within thirty (30) days of receipt.

Section 7.3. Resignation and Removal; Appointment of Successor.

(a) The Holder Representative may resign at any time by giving written notice thereof to Buyer specifying a date when such resignation shall take effect, which notice shall be sent at least thirty (30) days prior to the date so specified.

(b) If the Holder Representative shall decline to accept appointment at the Effective Time, resign, be removed or become incapable of acting, Kenneth Chahine shall be appointed a qualified successor Holder Representative without further action. Should Kenneth Chahine decline such appointment or otherwise resign, be removed or become incapable of acting, Holders representing 25% of the CPRs may appoint a qualified successor Holder Representative who may be a Holder but shall not be an affiliate of Buyer, provided that if Holders representing a greater percentage of CPRs shall appoint a qualified successor Holder Representative, the Person appointed by the Holders representing a greater percentage of CPRs shall act as the Holder Representative. Any successor Holder Representative appointed in accordance with this *Section 7.3(b)* shall,

Table of Contents

forthwith upon its acceptance of such appointment in accordance with this *Section 7.3(b)*, become the successor Holder Representative. The retiring Holder Representative shall deliver all relevant books and records to the successor Holder Representative.

(c) Buyer shall give notice of each resignation and each removal of a Holder Representative and each appointment of a successor Holder Representative by issuing a press release, which shall include the name and address of the successor Holder Representative, within four (4) Business Days announcing such event. Failure to give any notice provided for in this *Section 7.3(c)*, however, or any defect therein, shall not affect the legality or validity of the resignation or removal of the Holder Representative or the appointment of a successor Holder Representative, as the case may be.

(d) If a successor Holder Representative has not been appointed and has not accepted such appointment by the end of the thirty (30) calendar day period after the resignation, removal or incapacity of the retiring Holder Representative, the retiring Holder Representative may apply to a court of competent jurisdiction for the appointment of a successor Holder Representative, and the costs, expenses and reasonable attorneys fees which are incurred in connection with such a proceeding shall be paid in accordance with *Section 7.2(i)* hereof. Any such successor to the retiring Holder Representative shall agree to be bound by the terms of this Agreement, and the retiring Holder Representative shall provide the successor Holder Representative with all relevant books and records. Upon delivery of all of the relevant books and records, pursuant to the terms of this *Section 7.3(d)* to a successor Holder Representative, the retiring Holder Representative shall thereafter be discharged from any further obligations hereunder and the successor Holder Representative shall become the Holder Representative hereunder. The Holder Representative is hereby authorized, in any and all events, to comply with and obey any and all final judgments, orders and decrees of any court of competent jurisdiction which may be filed, entered or issued, and all final arbitration awards and, if it shall so comply or obey, it shall not be liable to any other Person by reason of such compliance or obedience.

Section 7.4. Acceptance of Appointment by Successor.

Every successor Holder Representative appointed hereunder shall execute, acknowledge and deliver to Buyer and to the retiring Holder Representative an instrument accepting such appointment and a counterpart of this Agreement, and thereupon such successor Holder Representative, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Holder Representative; *provided*, that upon the request of Buyer or the successor Holder Representative, such retiring Holder Representative shall execute and deliver an instrument transferring to such successor Holder Representative all the rights, powers and trusts of the retiring Holder Representative.

ARTICLE VIII

OTHER PROVISIONS OF GENERAL APPLICATION

Section 8.1. Notices.

All notices and other communications required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been duly given (i) on the date of delivery, if delivered personally or by facsimile, upon confirmation of receipt, (ii) on the first Business Day following the date of dispatch if delivered by a recognized next-day courier services or (iii) on the third Business Day following the date of mailing if delivered by registered or certified mail, return receipt requested, postage prepaid, to the parties to this Agreement at the following address or to such other address either party to this Agreement shall specify by notice to the other party:

(a) if to the Rights Agent, addressed to it at American Stock Transfer & Trust Company, LLC, Administrative Support, 6201 15th Avenue, Brooklyn, NY 11219, Attn: Herbert Lemmer, facsimile at

Table of Contents

(718) 331-1852, or at any other address previously furnished in writing to the Holders and Buyer by the Rights Agent in accordance with this *Section 8.1*;

(b) if to Buyer, addressed to it at MediciNova, Inc., 4350 La Jolla Village Drive, Suite 950, San Diego, CA 92122, Attn: Shintaro Asako, Chief Financial Officer, facsimile at (858) 373-7000, or at any other address previously furnished in writing to the Rights Agent and the Holders by Buyer in accordance with this *Section 8.1*; or

(c) if to the Holder Representative, addressed to him at 1301 Harbor Bay Parkway, Alameda, CA 94502, Attn: Andrew A. Sauter, facsimile at (510) 748-7285, or at any other address previously furnished in writing to the Holders and Buyer by the Holder Representative in accordance with this *Section 8.1*.

Section 8.2. Notice to Holders.

Where this Agreement provides for notice to Holders, such notice shall be sufficiently given (unless otherwise herein provided) if in writing and mailed, first-class postage prepaid, to each Holder affected by such event, at his, her or its addresses as it appears in the CPR Register, not later than the latest date, and not earlier than the earliest date, prescribed for giving of such notice. In any case where notice to Holders is given by mail, neither the failure to mail such notice, nor any defect in any notice so mailed, to any particular Holder shall affect the sufficiency of such notice with respect to other Holders.

Section 8.3. Effect of Headings.

The Article and Section headings herein are for convenience only and shall not affect the construction hereof.

Section 8.4. Successors and Assigns.

All covenants and agreements in this Agreement by Buyer shall bind its successors and assigns, whether so expressed or not.

Section 8.5. Benefits of Agreement.

Nothing in this Agreement, express or implied, shall give to any Person (other than the parties hereto, the Holder Representative, the Holders and their permitted successors and assigns hereunder) any benefit or any legal or equitable right, remedy or claim under this Agreement or under any covenant or provision herein contained, all such covenants and provisions being for the sole benefit of the parties hereto, the Holder Representative, the Holders and their permitted successors and assigns.

Section 8.6. Governing Law.

This Agreement and the CPRs shall be governed by and construed in accordance with the laws of the State of Delaware.

Section 8.7. Dispute of any CPR Payment Amounts.

If the Holder Representative or any Holders providing a Notice of Objection pursuant to *Section 2.4(d)* regarding a Payment Notice or Termination Certificate and Buyer are unable to agree upon the determination or calculation of the applicable CPR Payment Amount or determination of whether the delivery of a Termination Certificate was proper within ten (10) Business Days of receipt of the applicable Notice of Objection, within two (2) Business Days thereafter Buyer will submit via facsimile the disputed determination of such CPR Payment Amount or determination of whether the delivery of a Termination Certificate was properly delivered to an

Table of Contents

independent, reputable accounting firm selected by Buyer and approved by the Holder Representative or such Holders, as applicable. Buyer shall cause the accounting firm to perform the determinations or calculations and notify Buyer and such Holders of the results no later than ten (10) Business Days from the time it receives the disputed determinations or calculations. The cost of the accounting firm shall be paid by the Holders providing the Notice of Objection. Such accounting firm s determination or calculation, as the case may be, shall be binding upon all parties absent demonstrable error.

Section 8.8. Severability Clause.

In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Agreement, but this Agreement shall be construed as if such invalid or illegal or unenforceable provision had never been contained herein. Upon such determination that any term or other provision is invalid, illegal or unenforceable, the court or other tribunal making such determination is authorized and instructed to modify this Agreement so as to effect the original intent of the parties as closely as possible so that the transactions and agreements contemplated herein are consummated as originally contemplated to the fullest extent possible; *provided*, *however*, that if such modified provision shall affect the rights, immunities, duties or obligations of the Rights Agent or the Holder Representative, the Rights Agent or Holder Representative, as applicable, shall be entitled to resign immediately.

Section 8.9. Counterparts.

This Agreement may be signed in any number of counterparts (which may be effectively delivered by facsimile or other electronic means), each of which shall be deemed to constitute but one and the same instrument.

Section 8.10. Termination.

This Agreement shall terminate upon the earlier of:

(a) in the event of the occurrence of (i) the termination of the Plan Trust and payment of the Plan Trust Remainder to Target and (ii) either of the First Milestone Event or the Parkinson s Product Sale, payment of all CPR Payment Amounts regarding the CPR Payment Events that occurred, subject to any CPR Payment Deductions;

(b) in the event that a Termination Certificate has been delivered,

(i) if Notice of Objection is not delivered within the Objection Period relating thereto, the expiration of the Objection Period; and

(ii) if a Notice of Objection has been delivered within the Objection Period, either (i) the final determination in accordance with this Agreement that a CPR Payment Event has not been achieved or (ii) the fulfillment of any payment or other obligation in respect of such CPR Payment Event.

Section 3.2(h) shall survive the termination of this Agreement. For the avoidance of doubt, any payments to be received (or scheduled to be received) in connection with a Parkinson s Product Sale following the Termination Date shall inure solely to the benefit of Buyer.

Section 8.11. Entire Agreement.

As between Buyer and Target only, this Agreement and the Merger Agreement represent their entire understanding with reference to the CPRs, and this Agreement supersedes any and all other oral or written agreements between Buyer and Target made with respect to the CPRs, except for the Merger Agreement. If and

Table of Contents

to the extent that any provision of this Agreement is inconsistent or conflicts with the Merger Agreement, this Agreement shall govern and be controlling. This Agreement represents the entire understanding of the Rights Agent with reference to the CPRs, and, for the Right Agent, this Agreement supersedes any and all other oral or written agreements hereto made with respect to the CPRs.

Section 8.12. Waiver of Trial by Jury.

Each of the parties hereto, the Holder Representative and the Holders hereby irrevocably waive any and all right to trial by jury in any legal proceeding arising out of or related to this Agreement or the transactions contemplated hereby.

[REMAINDER OF PAGE LEFT BLANK INTENTIONALLY]

Table of Contents

IN WITNESS WHEREOF, each of the parties has caused this Agreement to be executed on its behalf by its duly authorized officers as of the day and year first above written.

MEDICINOVA, INC.

By:
Name: Shintaro Asako
Title: Vice President and Chief Financial Officer

AVIGEN, INC.

By:
Name: Andrew A. Sauter
Title: President, Chief Executive Officer and Chief Financial Officer

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC

By:
Name:
Title:

Table of Contents

Schedule 1

Rights Agent Fees and Expenses

Table of Contents

Schedule 2

Holder Representative Fees and Expenses

Table of Contents

ANNEX C

MEDICINOVA, INC.,

as Issuer,

and

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC,

Trustee

Indenture

Dated as of [ ], 2009

Providing for the Issuance

Of

Floating Rate Secured Convertible Notes due 2011

Table of Contents

MEDICINOVA, INC.

Reconciliation and tie between Trust Indenture Act of 1939

and Indenture, dated as of [ ], 2009

Trust Indenture Act Section		Indenture Section
§310	(a)(1)	5.06
	(a)(2)	5.06
	(b)	5.07
§311	(a)	6.05
	(b)	6.05
§312	(a)	6.01
	(b)	6.01
	(c)	6.02
§313	(a)	6.03
	(b)(2)	6.03
	(d)	6.03
§314	(a)	6.04
	(a)(4)	9.04
	(c)(1)	1.02
	(c)(2)	1.02
	(e)	1.02
§315	(a)	5.01
	(b)	5.01
	(c)	5.01
	(d)	5.01
§316	(a) (last sentence)	1.01 (Outstanding)
	(a)(1)(A)	4.02, 4.12
	(a)(1)(B)	4.13
	(b)	4.08
§317	(a)(1)	4.03
	(a)(2)	4.04
	(b)	9.03
§318	(a)	1.12
	(c)	1.12

NOTE: This reconciliation and tie shall not, for any purpose, be deemed to be a part of the Indenture.

Table of Contents

TABLE OF CONTENTS

(continued)

		Page
	ARTICLE ONE	
	DEFINITIONS AND OTHER PROVISIONS OF GENERAL APPLICATION	
Section 1.01	Definitions	C-1
Section 1.02	Compliance Certificates and Opinions	C-6
Section 1.03	Form of Documents Delivered to Trustee	C-7
Section 1.04	Acts of Holders	C-7
Section 1.05	Notices, Etc., to Trustee and the Company	C-8
Section 1.06	Notice to Holders; Waiver	C-8
Section 1.07	Effect of Headings and Table of Contents	C-9
Section 1.08	Successors and Assigns	C-9
Section 1.09	Separability Clause	C-9
Section 1.10	Benefits of Indenture	C-9
Section 1.11	No Security Interests Created	C-9
Section 1.12	Governing Law	C-9
Section 1.13	Legal Holidays	C-10
Section 1.14	Submission to Jurisdiction	C-10
Section 1.15	Conflict with Trust Indenture Act	C-10
Section 1.16	Counterparts	C-10
	ARTICLE TWO	
	SECURITIES FORMS	
Section 2.01	Form and Dating	C-10
Section 2.02	Form of Trustee s Certificate of Authentication	C-10
Section 2.03	Global Security in General	C-11
Section 2.04	Book-Entry Provisions	C-11
Section 2.05	Definitive Securities	C-11
	ARTICLE THREE	
	THE SECURITIES	
Section 3.01	Title; Amount and General Information	C-11
Section 3.02	Denominations	C-12
Section 3.03	Execution, Authentication, Delivery and Dating	C-12
Section 3.04	Temporary Securities	C-12
Section 3.05	Registration, Transfer and Exchange	C-13
Section 3.06	Mutilated, Destroyed, Lost and Stolen Securities	C-14
Section 3.07	Persons Deemed Owners	C-15
Section 3.08	Book-Entry Provisions for the Global Securities	C-15

Section 3.09	Cancellation	C-16
Section 3.10	CUSIP Numbers	C-16
Section 3.11	Withholding	C-17
Section 3.12	Issuance of Additional Securities	C-17

Table of Contents

TABLE OF CONTENTS

(continued)

		Page
	ARTICLE FOUR	
	REMEDIES	
Section 4.01	Events of Default	C-17
Section 4.02	Acceleration of Maturity	C-18
Section 4.03	Collection of Indebtedness and Suits for Enforcement by Trustee	C-19
Section 4.04	Trustee May File Proofs of Claim	C-19
Section 4.05	Trustee May Enforce Claims Without Possession of Securities	C-20
Section 4.06	Application of Money Collected	C-20
Section 4.07	Limitation on Suits	C-21
Section 4.08	Unconditional Right of Holders to Receive Payment and to Convert	C-21
Section 4.09	Restoration of Rights and Remedies	C-21
Section 4.10	Rights and Remedies Cumulative	C-21
Section 4.11	Delay or Omission Not Waiver	C-22
Section 4.12	Control by Holders of Securities	C-22
Section 4.13	Waiver of Past Defaults	C-22
Section 4.14	Waiver of Stay or Extension Laws	C-22
Section 4.15	Undertaking for Costs	C-22
	ARTICLE FIVE	
	THE TRUSTEE	
Section 5.01	Duties of Trustee and Notice of Defaults	C-23
Section 5.02	Certain Rights of Trustee	C-24
Section 5.03	Not Responsible for Recitals or Issuance of Securities	C-25
Section 5.04	May Hold Securities	C-25
Section 5.05	Compensation and Reimbursement and Indemnification of Trustee	C-25
Section 5.06	Corporate Trustee Required; Eligibility	C-26
Section 5.07	Disqualification; Conflicting Interests	C-26
Section 5.08	Resignation and Removal; Appointment of Successor	C-26
Section 5.09	Acceptance of Appointment by Successor	C-27
Section 5.10	Merger, Conversion, Consolidation or Succession to Business	C-27
Section 5.11	Appointment of Authenticating Agent	C-28
	ARTICLE SIX	
	HOLDERS LISTS AND REPORTS BY TRUSTEE AND COMPANY	
Section 6.01	Disclosure of Names and Addresses of Holders	C-29
Section 6.02	Preservation of Information; Communications to Holders	C-29
Section 6.03	Reports by Trustee	C-30

Section 6.04	Reports by Company	C-30
Section 6.05	Preferential Collection of Claims Against Company	C-30

Table of Contents

TABLE OF CONTENTS

(continued)

		Page
	ARTICLE SEVEN	
	CONSOLIDATION, MERGER, CONVEYANCE OR TRANSFER	
Section 7.01	Company May Consolidate, Etc., Only on Certain Terms	C-30
Section 7.02	Successor Person Substituted	C-31
	ARTICLE EIGHT	
	SUPPLEMENTAL INDENTURES	
Section 8.01	Supplemental Indentures Without Consent of Holders	C-31
Section 8.02	Supplemental Indentures with Consent of Holders	C-32
Section 8.03	Execution of Supplemental Indentures	C-33
Section 8.04	Effect of Supplemental Indentures	C-33
Section 8.05	Conformity with Trust Indenture Act	C-33
Section 8.06	Reference in Securities to Supplemental Indentures	C-33
	ARTICLE NINE	
	COVENANTS	
Section 9.01	Payment of Principal and Interest	C-33
Section 9.02	Maintenance of Office or Agency	C-33
Section 9.03	Money for Securities Payments to Be Held in Trust	C-34
Section 9.04	Statement as to Compliance	C-34
Section 9.05	Corporate Existence	C-34
Section 9.06	Reports to Holders	C-34
Section 9.07	Liens	C-34
Section 9.08	Trust Agreement	C-34
	ARTICLE TEN	
	CONVERSION	
Section 10.01	Conversion of Securities	C-35
Section 10.02	Adjustments to Conversion Rate	C-37
Section 10.03	Effect of Reclassification, Consolidation, Merger or Sale	C-42
Section 10.04	Responsibility of Trustee	C-44

Section 10.05	Notice to Holders Prior to Certain Actions	C-44
Section 10.06	Stockholder Rights Plan	C-45
EXHIBIT A:	FORM OF GLOBAL SECURITY	
EXHIBIT B:	FORM OF DEFINITIVE SECURITY	

Table of Contents

INDENTURE, dated as of [ ], 2009, by and among MEDICINOVA, INC., a Delaware corporation (hereinafter called the *Company*), having its principal office at 4350 La Jolla Village Drive, Suite 950, San Diego, California 92122, and AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC, a New York limited liability trust company, as Trustee (hereinafter called the *Trustee*), having its Corporate Trust Office at 59 Maiden Lane, Plaza Level, New York, NY 10038.

RECITALS OF THE COMPANY

WHEREAS, the Company, as consideration for the merger with AVIGEN, INC., a Delaware corporation (hereinafter called *Avigen*) and pursuant to the terms of a Merger Agreement dated , 2009, by and among the Company, Avigen and Absolute Merger, Inc., a Delaware corporation and wholly-owned subsidiary of the Company (the *Merger Agreement*), shall issue to certain holders of the shares of Avigen s common stock, par value $0.001 per share, Floating Rate Secured Convertible Notes due 2011 (hereinafter called the *Securities*) evidencing the Company s secured indebtedness, which may be convertible into shares of the Common Stock (as defined herein), and has duly authorized the execution and delivery of this Indenture (as defined herein) to provide for the issuance of the Securities at the time of the execution of this Indenture, to mature at such time and to have such other provisions as shall be fixed as hereinafter provided;

WHEREAS, this Indenture is subject to the provisions of the Trust Indenture Act (as defined herein), that are required to be part of this Indenture and shall, to the extent applicable, be governed by such provisions; and

WHEREAS, all things necessary to make this Indenture a valid and legally binding agreement of the Company, in accordance with its terms, have been done;

NOW, THEREFORE, THIS INDENTURE WITNESSETH:

For and in consideration of the premises and the purchase of the Securities by the Holders (as defined herein) thereof, it is mutually covenanted and agreed, for the equal and proportionate benefit of all Holders, as follows:

ARTICLE ONE

DEFINITIONS AND OTHER PROVISIONS OF GENERAL APPLICATION

Section 1.01 Definitions.

For all purposes of this Indenture, except as otherwise expressly provided or unless the context otherwise requires:

(1) the terms defined in this Article One have the meanings assigned to them in this Article One, and include the plural as well as the singular;

(2) all other terms used herein which are defined in the Trust Indenture Act, either directly or by reference therein, have the meanings assigned to them therein;

(3) all accounting terms not otherwise defined herein have the meanings assigned to them in accordance with generally accepted accounting principles in the United States of America; and

(4) the words herein , hereof and hereunder and other words of similar import refer to this Indenture as a whole and not to any particular Article, Section or other subdivision.

Table of Contents

Act, when used with respect to any Holder of a Security, has the meaning specified in Section 1.04.

Additional Securities means Floating Rate Secured Convertible Notes due 2011 issued from time to time after the Issue Date under the terms of this Indenture.

Agent Members means members of, or participants in, the Depositary.

Affiliate of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, control when used with respect to any specified Person means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise, and the terms controlling and controlled have meanings correlative to the foregoing.

Alternative Reorganization Event has the meaning specified in Section 10.03(7).

Authenticating Agent means any authenticating agent appointed by the Trustee pursuant to Section 5.11 to act on behalf of the Trustee to authenticate Securities.

Avigen has the meaning specified in the Recitals.

Bankruptcy Law means Title 11 of the U.S. Code or any applicable federal or state bankruptcy, insolvency, reorganization or other similar law or analogous foreign law for the relief of debtors.

Beneficial Owner means any Person who is considered a beneficial owner of a security in accordance with Rule 13d-3 under the Exchange Act.

Board of Directors means the board of directors of the Company or any committee thereof duly authorized to act hereunder.

Board Resolution means a copy of one or more resolutions certified by the Secretary or an Assistant Secretary of the Company to have been duly adopted by the Board of Directors and to be in full force and effect on the date of such certification, and delivered to the Trustee.

Business Day means each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in The City of New York are authorized or obligated by law, regulation or executive order to close.

Capital Stock means any and all shares, interests, rights to purchase, warrants, options, participations or other equivalents of or interests in (however designated) stock issued by the Company.

Close of Business means 5:00 p.m., Eastern Standard Time, on any Business Day.

Closing Price means, in the case of the Common Stock, the average of the price per share of the final trade of the Common Stock on the applicable Trading Day on the Principal Securities Exchanges, such average to be weighted based on the percentage of trading activity conducted on such Trading Day on each of the Principal Securities Exchanges and, in the case of other securities, the price per unit of the final trade of such security on the applicable Trading Day on the principal national securities exchange on which such security is listed or admitted to trading.

Commission means the Securities and Exchange Commission.

Common Stock means the shares of the class designated as common stock of the Company at the date of this Indenture as such stock may be reconstituted from time to time. Subject to the provisions of Section 10.03,

shares issuable upon conversion of Securities shall include only shares of Common Stock or shares of any class or classes of common stock resulting from any reclassification or reclassifications thereof; *provided*, *however*, that if at any time there shall be more than one such resulting class, the shares so issuable on conversion of Securities shall include shares of all such classes, and the shares of each such class then so issuable shall be substantially in the proportion which the total number of shares of such class resulting from all such reclassifications bears to the total number of shares of all such classes resulting from all such reclassifications.

Company has the meaning specified in the first paragraph of this Indenture.

Company Request and *Company Order* mean, respectively, a written request or order, as the case may be, signed in the name of the Company by any one of its Chairman of the Board of Directors, its Chief Executive Officer, its President, its Chief Financial Officer or a Vice President and by any one of its Secretary or its Controller, and delivered to the Trustee.

Conversion Agent means the office or agency appointed by the Company where Securities may be presented for conversion. The Conversion Agent appointed by the Company shall initially be the Trustee.

Conversion Date has the meaning specified in Section 10.01.

Conversion Rate means a stated price to be computed as the quotient of 1 and $6.80, subject to adjustment as set forth in Section 10.02.

Corporate Trust Office means the office of the Trustee at which, at any particular time, its corporate trust business shall be principally administered, which office at the date hereof is located at 59 Maiden Lane, Plaza Level, New York, NY 10038.

corporation includes corporations, limited liability companies, associations, companies and business trusts.

Current Market Price means the average Closing Price for the 10 consecutive Business Days immediately preceding, but not including, the date as of which the Current Market Price is to be determined.

CUSIP has the meaning specified in Section 3.10.

Custodian means any custodian, receiver, trustee, assignee, liquidator, sequestrator or other similar official under any Bankruptcy Law.

Default means any event which is, or after notice or passage of time or both would be, an Event of Default.

Definitive Securities means any certificated Securities that are not Global Securities.

Depositary means the Person designated, which shall originally be the Depository Trust Company or any nominee thereof, as depositary of the Global Securities by the Company pursuant to until a successor Depositary shall have become such pursuant to the applicable provisions of this Indenture, and thereafter *Depositary* shall mean the Person who is then depositary for the Global Securities.

Distributed Property has the meaning specified in Section 10.02.

Dollar or *$* means a dollar or other equivalent unit in such coin or currency of the United States of America as at the time shall be legal tender for the payment of public and private debts.

Event of Default has the meaning specified in Section 4.01.

Table of Contents

Exchange Act means the Securities Exchange Act of 1934, as amended.

Expiration Date has the meaning specified in Section 10.02.

Global Securities means the certificated Securities in global form, registered in the name of the Depositary.

Holder means the Person in whose name a Security is registered in the Security Register.

Indenture means this instrument as originally executed or as it may from time to time be supplemented or amended by one or more indentures supplemental hereto entered into pursuant to the applicable provisions hereof.

Lien means, with respect to any asset, any mortgage, lien, pledge, charge, security interest or encumbrance of any kind with respect to such asset.

Merger Agreement has the meaning specified in the Recitals.

Notice of Default has the meaning specified in Section 5.01.

Officers Certificate means a certificate signed by any of the Company s Chairman of the Board of Directors, its Chief Executive Officer, its President, its Chief Financial Officer or a Vice President and by any one of its Secretary or its Controller, and delivered to the Trustee.

Opinion of Counsel means a written opinion of counsel, who may be counsel for the Company or who may be an employee of or other counsel for the Company.

Outstanding , when used with respect to the Securities, means, as of the date of determination, all Securities, theretofore authenticated and delivered under this Indenture, except:

(i) Securities theretofore cancelled by the Trustee or the Security Registrar or delivered to, or accepted by, the Trustee or the Security Registrar for cancellation;

(ii) Securities which have been paid pursuant to Section 3.06 or in exchange for or in lieu of which other Securities have been authenticated and delivered pursuant to this Indenture, other than any such Securities in respect of which there shall have been presented to the Trustee proof satisfactory to it that such Securities are held by a protected purchaser in whose hands such Securities are valid obligations of the Company; and

(iii) Securities converted into shares of Common Stock as contemplated herein;

provided, *however*, that in determining whether the Holders of the requisite principal amount of the Outstanding Securities have given any request, demand, authorization, direction, notice, consent or waiver hereunder or are present at a meeting of Holders for quorum purposes, and for the purpose of making the calculations required by Section 313 of the Trust Indenture Act, Securities owned by the Company or any other obligor upon the Securities or any Affiliate of the Company or of such other obligor shall be disregarded and deemed not to be Outstanding, except that, in determining whether the Trustee shall be protected in making such calculation or in relying upon any such request, demand, authorization, direction, notice, consent or waiver or upon any such determination as to the presence of a quorum, only Securities which a Responsible Officer of the Trustee actually knows to be so owned shall be so disregarded. Securities so owned which have been pledged in good faith may be regarded as Outstanding if the pledgee establishes to the satisfaction of the Trustee the pledgee s right so to act with respect to such Securities and that the pledgee is not the Company or any other obligor upon the Securities or any Affiliate of the Company or of such other obligor.

Paying Agent means any Person authorized by the Company to pay the principal or interest, if any, on the Securities on behalf of the Company.

Person means any individual, corporation, partnership, joint venture, association, joint-stock company, limited liability company, trust, unincorporated organization or government or any agency or political subdivision thereof, or any other entity.

Place of Payment means the place or places where the principal of and any interest on any Securities are payable or where the Securities are convertible into shares of Common Stock, and the initial Place of Payment shall be the Corporate Trust Office.

Principal Securities Exchanges means (a) the principal trading market in Japan on which the Common Stock is listed or admitted to trading and (b) the principal national securities exchange in the United States on which the Common Stock is listed or admitted to trading, it being understood that as of the date hereof the Principal Securities Exchanges are the Hercules Market of the Osaka Securities Exchange and the Nasdaq Global Market; *provided*, that in the event the Common Stock is only listed or admitted to trading on one Principal Securities Exchange such exchange shall be the sole Principal Securities Exchange.

Property has the meaning specified in Section 9.08.

Record Date means, with respect to any dividend, distribution or other transaction or event in which the holders of Common Stock have the right to receive any cash, securities or other property or in which the Common Stock (or other applicable security) is exchanged for or converted into any combination of cash, securities or other property, the date fixed for determination of shareholders entitled to receive such cash, securities or other property (whether such date is fixed by the Board of Directors or by statute, contract or otherwise).

Reference Property has the meaning specified in Section 10.03.

Registered Security means any Security which is registered in the Security Register.

Reorganization Event has the meaning specified in Section 10.03.

Responsible Officer means any officer of the Trustee assigned by the Trustee to administer its corporate trust matters and who shall have direct responsibility for the administration of this Indenture.

Securities Custodian means the custodian with respect to the Global Securities (as appointed by the Depositary), or any successor Person thereto and shall initially be the Trustee.

Security or *Securities* has the meaning specified in the Recitals and, more particularly, means any Security or Securities authenticated and delivered under this Indenture.

Security Register has the meaning specified in Section 3.05.

Security Registrar has the meaning specified in Section 3.05.

Significant Subsidiary means (1) Avigen or (2) any Subsidiary that would be a significant subsidiary as defined in Rule 1-02 of Regulation S-X, promulgated pursuant to the Securities Act of 1933, as amended, as such regulation is in effect on the date hereof.

Spin-Off has the meaning specified in Section 10.02.

Table of Contents

Stated Maturity Date means [ ], 2011 [18 months from the date of issuance], which is the date that all principal and interest on all Outstanding Securities is due and payable.

Subsidiary means any Person a majority of the outstanding voting stock of which is owned, directly or indirectly, by the Company or by one or more other Subsidiaries of the Company. For the purposes of this definition, voting stock means stock having voting power for the election of directors, whether at all times or only so long as no senior class of stock has such voting power by reason of any contingency.

Trading Day means any Business Day on which the Common Stock is traded, or able to be traded, on any of the Principal Securities Exchanges on which the Common Stock is listed or admitted to trading.

Trust Account means the trust account provided for under the Trust Agreement.

Trust Agreement means the Trust Agreement, dated as of the date hereof, between the Company and the Trustee, as such agreement may be amended, supplemented or modified from time to time in accordance with its terms.

Trust Indenture Act means the Trust Indenture Act of 1939, as amended, as in force at the date as of which this Indenture was executed, except as provided in Section 8.05.

Trustee means the Person named as the *Trustee* in the first paragraph of this Indenture until a successor Trustee shall have become such pursuant to the applicable provisions of this Indenture, and thereafter *Trustee* shall mean or include each Person who is then a Trustee hereunder.

United States means the United States of America (including the states and the District of Columbia), its territories, its possessions and other areas subject to its jurisdiction.

Section 1.02 Compliance Certificates and Opinions.

(1) Upon any application or request by the Company to the Trustee to take any action under any provision of this Indenture, the Company shall furnish to the Trustee an Officers Certificate stating that all conditions precedent, if any, provided for in this Indenture relating to the proposed action have been complied with and an Opinion of Counsel stating that in the opinion of such counsel all such conditions precedent, if any, have been complied with, except that in the case of any such application or request as to which the furnishing of such documents is specifically required by any provision of this Indenture relating to such particular application or request, no additional certificate or opinion need be furnished.

Every certificate or opinion with respect to compliance with a condition or covenant provided for in this Indenture (other than pursuant to Section 9.04) shall include:

(a) a statement that each individual signing such certificate or opinion has read such condition or covenant and the definitions herein relating thereto;

(b) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based;

(c) a statement that, in the opinion of each such individual, he or she has made such examination or investigation as is necessary to enable such individual to express an informed opinion as to whether or not such condition or covenant has been complied with; and

(d) a statement as to whether, in the opinion of each such individual, such condition or covenant has been complied with.

Table of Contents

(2) In the absence of bad faith or willful misconduct on its part, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture. However, in the case of any such certificates or opinions which by any provision hereof are specifically required to be furnished to the Trustee, the Trustee shall examine the certificates and opinions to determine whether or not they conform to the requirements of this Indenture, but need not confirm or investigate the accuracy of mathematical calculations or other facts stated therein.

Section 1.03 Form of Documents Delivered to Trustee.

In any case where several matters are required to be certified by, or covered by an opinion of, any specified Person, it is not necessary that all such matters be certified by, or covered by the opinion of, only one such Person, or that they be so certified or covered by only one document.

Any certificate or opinion of an officer of the Company may be based, insofar as it relates to legal matters, upon an Opinion of Counsel, or a certificate or representations by counsel, unless such officer knows, or in the exercise of reasonable care should know, that the opinion, certificate or representations with respect to the matters upon which his certificate or opinion is based are erroneous. Any such Opinion of Counsel or certificate or representations may be based, insofar as it relates to factual matters, upon a certificate or opinion of, or representations by, an officer or officers of the Company stating that the information as to such factual matters is in the possession of the Company, unless such counsel knows, or in the exercise of reasonable care should know, that the certificate or opinion or representations as to such matters are erroneous.

Where any Person is required to make, give or execute two or more applications, requests, consents, certificates, statements, opinions or other instruments under this Indenture, they may, but need not, be consolidated and form one instrument.

Section 1.04 Acts of Holders.

(a) Any request, demand, authorization, direction, notice, consent, waiver or other action provided by this Indenture to be given or taken by Holders may be embodied in and evidenced by one or more instruments of substantially similar tenor signed by such Holders in person or by agents duly appointed in writing. Except as herein otherwise expressly provided, such action shall become effective when such instrument or instruments or record or both are delivered to the Trustee and, where it is hereby expressly required, to the Company. Such instrument or instruments and any such record (and the action embodied therein and evidenced thereby) are herein sometimes referred to as the *Act* of the Holders signing such instrument or instruments or so voting at any such meeting. Proof of execution of any such instrument or of a writing appointing any such agent, or of the holding by any Person of a Security, shall be sufficient for any purpose of this Indenture and conclusive in favor of the Trustee and the Company and any agent of the Trustee or the Company, if made in the manner provided in this Section 1.04.

(b) The fact and date of the execution by any Person of any such instrument or writing may be proved by the affidavit of a witness of such execution or by a certificate of a notary public or other officer authorized by law to take acknowledgments of deeds, certifying that the individual signing such instrument or writing acknowledged to him or her the execution thereof. Where such execution is by a signer acting in a capacity other than his individual capacity, such certificate or affidavit shall also constitute sufficient proof of his authority. The fact and date of the execution of any such instrument or writing, or the authority of the Person executing the same, may also be proved in any other manner that the Trustee deems reasonably sufficient.

(c) The ownership of Securities shall be proved by the Security Register.

Table of Contents

(d) If the Company shall solicit from the Holders of Securities any request, demand, authorization, direction, notice, consent, waiver or other Act, the Company may, at its option, in or pursuant to a Board Resolution, fix in advance a record date for the determination of Holders entitled to give such request, demand, authorization, direction, notice, consent, waiver or other Act, but the Company shall have no obligation to do so. Notwithstanding Section 316(c) of the Trust Indenture Act, such record date shall be the record date specified in or pursuant to such Board Resolution, which shall be a date not earlier than the date 30 days prior to the first solicitation of Holders generally in connection therewith and not later than the date such solicitation is completed. If such a record date is fixed, such request, demand, authorization, direction, notice, consent, waiver or other Act may be given before or after such record date, but only the Holders of record at the close of business on such record date shall be deemed to be Holders for the purposes of determining whether Holders of the requisite proportion of Outstanding Securities have authorized or agreed or consented to such request, demand, authorization, direction, notice, consent, waiver or other Act, and for that purpose the Outstanding Securities shall be computed as of such record date; *provided* that no such authorization, agreement or consent by the Holders on such record date shall be deemed effective unless it shall become effective pursuant to the provisions of this Indenture not later than six months after the record date.

(e) Any request, demand, authorization, direction, notice, consent, waiver or other Act of the Holder of any Security shall bind every future Holder of the same Security and the Holder of every Security issued upon the registration of transfer thereof or in exchange therefor or in lieu thereof in respect of anything done, omitted or suffered to be done by the Trustee, any Security Registrar, any Paying Agent, any Authenticating Agent or the Company in reliance thereon, whether or not notation of such action is made upon such Security.

Section 1.05 Notices, Etc., to Trustee and the Company.

Any request, demand, authorization, direction, notice, consent, waiver or Act of Holders or other document provided or permitted by this Indenture shall be in writing and shall be deemed to have been duly given (a) on the date of delivery, if delivered personally or by facsimile, upon confirmation of receipt, (b) on the first Business Day following the date of dispatch if delivered by a recognized next-day courier services or (c) on the third Business Day following the date of mailing if delivered by registered or certified mail, return receipt requested, postage prepaid, to the parties to this Agreement at the following address or to such other address either party to this Agreement shall specify by notice to the other party:

(1) if to the Trustee, addressed to it at American Stock Transfer & Trust Company, LLC, Administrative Support, 6201 15th Avenue, Brooklyn, NY 11219, Attn: Herbert Lemmer, facsimile at (718) 331-1852, or at any other address previously furnished in writing to the Holders and the Company in accordance with this Section 1.05; or

(2) if to the Company, addressed to it at MediciNova, Inc., 4350 La Jolla Village Drive, Suite 950, San Diego, CA 92122, Attn: Shintaro Asako, Chief Financial Officer, facsimile at (858) 373-7000, or at any other address previously furnished in writing to the Trustee and the Holders by the Company in accordance with this Section 1.05.

Section 1.06 Notice to Holders; Waiver.

Where this Indenture provides for notice of any event to Holders of Registered Securities by the Company or the Trustee, such notice shall be sufficiently given (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, to each such Holder affected by such event, at his, her or its address as it appears in the Security Register, not later than the latest date, and not earlier than the earliest date, prescribed for the giving of such notice. In any case where notice to Holders of Registered Securities is given by mail, neither the failure to mail such notice, nor any defect in any notice so mailed, to any particular Holder shall affect the sufficiency of such notice with respect to other Holders of Registered Securities given as provided herein. Any notice mailed to a Holder in the manner herein prescribed shall be conclusively deemed to have been received by such Holder, whether or not such Holder actually receives such notice.

Table of Contents

If by reason of the suspension of or irregularities in regular mail service or by reason of any other cause it shall be impracticable to give such notice by mail, then such notification to Holders of Registered Securities as shall be made with the approval of the Trustee shall constitute a sufficient notification to such Holders for every purpose hereunder.

Any request, demand, authorization, direction, notice, consent or waiver required or permitted under this Indenture shall be in the English language.

Notwithstanding any other provision of this Indenture or any Security, whenever notice is required to be given to a holder of a Global Security, such notice shall be sufficiently given if given to the Depositary for such Global Security (or its designee), pursuant to customary procedures of such Depositary.

Where this Indenture provides for notice in any manner, such notice may be waived in writing by the Person entitled to receive such notice, either before or after the event, and such waiver shall be the equivalent of such notice. Waivers of notice by Holders shall be filed with the Trustee, but such filing shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

Section 1.07 Effect of Headings and Table of Contents.

The Article and Section headings herein and the Table of Contents are for convenience only and shall not affect the construction hereof.

Section 1.08 Successors and Assigns.

All covenants and agreements in this Indenture by the Company shall bind its successors and assigns, whether so expressed or not.

Section 1.09 Separability Clause.

In case any provision in this Indenture or in any Security shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

Section 1.10 Benefits of Indenture.

Nothing in this Indenture or in the Securities, express or implied, shall give to any Person, other than the parties hereto, any Security Registrar, any Paying Agent, any Authenticating Agent, any Conversion Agent and their successors hereunder and the Holders any benefit or any legal or equitable right, remedy or claim under this Indenture.

Section 1.11 No Security Interests Created

Except as provided in the Trust Agreement, nothing in this Indenture or the Securities, expressed or implied, shall be construed to create a security interest under the Uniform Commercial Code or similar legislation, as now or hereafter enacted and in effect, in any jurisdiction.

Section 1.12 Governing Law.

This Indenture and the Securities shall be governed by and construed in accordance with the law of the State of New York. This Indenture is subject to the provisions of the Trust Indenture Act that are required to be part of this Indenture and shall, to the extent applicable, be governed by such provisions.

Table of Contents

Section 1.13 Legal Holidays.

In any case where the Stated Maturity Date or any Conversion Date shall not be a Business Day, then, payment of principal or interest, if any, or the provision of any shares of Common Stock need not be made on such date, but may be made on the next succeeding Business Day with the same force and effect as if made on the Stated Maturity Date or such Conversion Date; *provided* that no interest shall accrue on the amount so payable for the period from and after such Stated Maturity Date.

Section 1.14 Submission to Jurisdiction.

The Company hereby irrevocably submits to the non-exclusive jurisdiction of any New York state or federal court sitting in The City of New York in any action or proceeding arising out of or relating to the Indenture and the Securities, and the Company hereby irrevocably agrees that all claims in respect of such action or proceeding may be heard and determined in such New York state or federal court. The Company hereby irrevocably waives, to the fullest extent it may effectively do so, the defense of an inconvenient forum to the maintenance of such action or proceeding.

Section 1.15 Conflict with Trust Indenture Act.

If any provision hereof limits, qualifies or conflicts with any provision of the Trust Indenture Act or another provision which is required or deemed to be included in this Indenture by any of the provisions of the Trust Indenture Act, the provision or requirement of the Trust Indenture Act shall control. If any provision of this Indenture modifies or excludes any provision of the Trust Indenture Act that may be so modified or excluded, the latter provision shall be deemed to apply to this Indenture as so modified or to be excluded, as the case may be.

Section 1.16 Counterparts.

This Indenture may be executed in any number of counterparts, each of which shall be an original, but such counterparts shall together constitute but one and the same instrument.

ARTICLE TWO

SECURITIES FORMS

Section 2.01 Form and Dating.

The Securities shall be issued initially as one or more Global Securities and/or Definitive Securities in the form set forth on Exhibit A and Exhibit B, respectively, both of which are part of this Indenture and incorporated by reference herein. The Securities may have notations, legends or endorsements required by law, stock exchange rule or usage; *provided* that any such notation, legend or endorsement required by usage is in a form acceptable to the Company. The Company shall provide any such notations, legends or endorsements to the Trustee in writing. Each Security shall be dated the date of its authentication.

Section 2.02 Form of Trustee s Certificate of Authentication.

Subject to Section 5.11, the Trustee s certificate of authentication shall be in substantially the following form:

This is one of the Securities referred to in the within-mentioned Indenture.

AMERICAN STOCK TRANSFER & TRUST
COMPANY, LLC, Trustee

By:
Authorized Officer

C-10

Table of Contents

Section 2.03 Global Security in General.

Each Global Security shall represent such number of the Outstanding Securities as shall be specified therein and each shall provide that it shall represent the aggregate amount of Outstanding Securities from time to time endorsed thereon and that the aggregate amount of Outstanding Securities represented thereby may from time to time be reduced or increased, as appropriate, to reflect any exchanges, surrenders, conversions, transfers or cancellations.

Any adjustment of the aggregate principal amount of a Global Security to reflect the amount of any increase or decrease in the amount of Outstanding Securities represented thereby shall be made by the Trustee and shall be made on the records of the Trustee and the Depositary.

Section 2.04 Book-Entry Provisions.

The Company shall execute and the Trustee shall, in accordance with this Section 2.04, authenticate and deliver initially one or more Global Securities that (a) shall be registered in the name of the Depositary, (b) shall be delivered by the Trustee to the Depositary or pursuant to the Depositary s instructions and (c) shall bear legends substantially to the following effect:

UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION, TO MEDICINOVA, INC. (THE COMPANY) OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY CERTIFICATE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY (AND ANY PAYMENT HEREON IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH AS THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN. TRANSFERS OF THIS GLOBAL SECURITY SHALL BE LIMITED TO TRANSFERS TO NOMINEES OF THE DEPOSITORY TRUST COMPANY OR TO A SUCCESSOR THEREOF OR SUCH SUCCESSOR S NOMINEE AND TRANSFERS OF PORTIONS OF THIS GLOBAL SECURITY SHALL BE LIMITED TO TRANSFERS MADE IN ACCORDANCE WITH THE RESTRICTIONS SET FORTH IN THE INDENTURE REFERRED TO ON THE REVERSE HEREOF.

Section 2.05 Definitive Securities.

Securities not issued as interests in the Global Securities will be issued in certificated definitive form substantially in the form of Exhibit B attached hereto.

ARTICLE THREE

THE SECURITIES

Section 3.01 Title; Amount and General Information.

(1) The Securities shall be known and designated as the Floating Rate Secured Convertible Notes;

(2) The aggregate principal amount of Securities which may be authenticated and delivered under this Indenture is limited to $38.5 million (except for Securities authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Securities pursuant to Sections 3.04, 3.05, 3.06, 8.06, and except for any Securities which, pursuant to Section 3.03, are deemed never to have been authenticated and delivered hereunder);

Table of Contents

(3) The principal of and all interest on any Outstanding Securities shall be due on the Stated Maturity Date;

(4) All principal of and interest on Securities shall be payable, all shares of Common Stock provided upon conversion, all Definitive Securities may be surrendered for registration of transfer, exchange or conversion, as applicable, and all notices or demands to or upon the Company in respect of the Securities and this Indenture may be served at the Corporate Trust Office in the City of New York or any other Place of Payment designated by the Company after the provision of notice of such designation by the Company to the Trustee and the Holders; and

(5) The Trustee shall be the initial Paying Agent, Security Registrar, Conversion Agent and Securities Custodian.

Section 3.02 Denominations.

The Securities initially shall be issuable in denominations of $[ ] and any multiple thereof.

Section 3.03 Execution, Authentication, Delivery and Dating.

The Securities shall be executed on behalf of the Company by any one of its Chairman of the Board of Directors, its Chief Executive Officer, its President, its Chief Financial Officer or a Vice President and by one of its Secretary or its Controller, under its corporate seal reproduced thereon, and attested by its Secretary. The signature of such officers on the Securities may be manual or facsimile signatures of the present or any future such authorized officer and may be imprinted or otherwise reproduced on the Securities.

Securities bearing the manual or facsimile signatures of individuals who were at any time the proper officers of the Company shall bind the Company, notwithstanding that such individuals or any of them have ceased to hold such offices prior to the authentication and delivery of such Securities or did not hold such offices at the date of such Securities.

The Trustee shall authenticate and deliver Securities for original issue in an aggregate principal amount of up to $38.5 million upon a Company Order without any further action by the Company. The aggregate principal amount of Securities outstanding at any time may not exceed the amount set forth in the foregoing sentence, except as provided in Section 3.01(2).

Each Registered Security shall be dated the date of its authentication as contemplated by Section 3.01.

No Security shall be entitled to any benefit under this Indenture or be valid or obligatory for any purpose unless there appears on such Security a certificate of authentication substantially in the form provided for herein duly executed by the Trustee or an Authenticating Agent by signature of an authorized signatory, and such certificate upon any Security shall be conclusive evidence, and the only evidence, that such Security has been duly authenticated and delivered hereunder and is entitled to the benefits of this Indenture. Notwithstanding the foregoing, if any Security shall have been authenticated and delivered hereunder but never issued and sold by the Company, and the Company shall deliver such Security to the Trustee for cancellation as provided in Section 3.09 together with a written statement (which need not comply with Section 1.02 and need not be accompanied by an Opinion of Counsel) stating that such Security has never been issued and sold by the Company, for all purposes of this Indenture such Security shall be deemed never to have been authenticated and delivered hereunder and shall never be entitled to the benefits of this Indenture.

Section 3.04 Temporary Securities.

Pending the preparation of any Global or Definitive Securities, the Company may execute, and upon Company Order the Trustee shall authenticate and deliver, temporary Securities which are printed, lithographed,

Table of Contents

typewritten, mimeographed or otherwise produced, in any authorized denomination, substantially of the tenor of the Global or Definitive Securities in lieu of which they are issued, in registered form and with such appropriate insertions, omissions, substitutions and other variations as the officers executing such Securities may determine, as conclusively evidenced by their execution of such Securities. Such temporary Securities may be in global form.

If temporary Securities are issued, the Company will cause Definitive Securities to be prepared without unreasonable delay. After the preparation of Definitive Securities, the temporary Securities shall be exchangeable for Definitive Securities upon surrender of the temporary Securities at the Corporate Trust Office, without charge to the Holder. Upon surrender for cancellation of any one or more temporary Securities, the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor a like principal amount and like tenor of Definitive Securities of authorized denominations. Until so exchanged, the temporary Securities in all respects be entitled to the same benefits under this Indenture as Definitive Securities.

Section 3.05 Registration, Transfer and Exchange.

The Company shall cause to be kept at the Corporate Trust Office of the Trustee or in any office or agency of the Company in a Place of Payment a register for the Securities (the registers maintained in such office or in any such office or agency of the Company in a Place of Payment being herein sometimes referred to collectively as the *Security Register*) in which, subject to such reasonable instructions as it may prescribe, the Company shall provide for the registration of Registered Securities and of transfers of Registered Securities. The Security Register shall be in written form or any other form capable of being converted into written form within a reasonable time. The Trustee, at its Corporate Trust Office, is hereby initially appointed *Security Registrar* for the purpose of registering Registered Securities and transfers of Registered Securities on such Security Register as herein provided and for facilitating exchanges of temporary Global Securities for permanent Global Securities or Definitive Securities, or both, or of permanent Global Securities for Definitive Securities, or both, as herein provided. In the event that the Trustee shall cease to be Security Registrar, it shall have the right to examine the Security Register at all reasonable times.

Upon surrender for registration of transfer of any Registered Security at any office or agency of the Company in a Place of Payment, the Company shall execute, and the Trustee shall authenticate and deliver, in the name of the designated transferee or transferees, one or more new Registered Securities, of any authorized denominations and of a like aggregate principal amount, bearing a number not contemporaneously outstanding and containing identical terms and provisions.

At the option of the Holder, Registered Securities may be exchanged for other Registered Securities, of any authorized denomination or denominations and of a like aggregate principal amount, containing identical terms and provisions, upon surrender of the Registered Securities to be exchanged at any such office or agency. Whenever any Registered Securities are so surrendered for exchange, the Company shall execute, and the Trustee shall authenticate and deliver, the Registered Securities which the Holder making the exchange is entitled to receive.

Whenever any Securities are so surrendered for exchange, the Company shall execute, and the Trustee shall authenticate and deliver, the Securities which the Holder making the exchange is entitled to receive.

Notwithstanding the foregoing, any permanent Global Security shall be exchangeable only as provided in this paragraph. If any beneficial owner of an interest in a permanent Global Security is entitled to exchange such interest for Securities and of like tenor and principal amount of another authorized form and denomination, *provided* that any applicable notice provided in the permanent Global Security shall have been given, then without unnecessary delay but in any event not later than the earliest date on which such interest may be so exchanged, the Company shall deliver to the Trustee Definitive Securities in aggregate principal amount equal to the principal amount of such beneficial owner s interest in such permanent Global Security, executed by the

Table of Contents

Company. On or after the earliest date on which such interests may be so exchanged, such permanent Global Security shall be surrendered by the Depositary or such other depositary as shall be specified in the Company Order with respect thereto to the Trustee, as the Company s agent for such purpose, or to the Security Registrar, to be exchanged, in whole or from time to time in part, for Definitive Securities without charge and the Trustee shall authenticate and deliver, in exchange for each portion of such permanent Global Security, an equal aggregate principal amount of Definitive Securities of authorized denominations and of like tenor as the portion of such permanent Global Security to be exchanged which shall be in the form of Registered Securities as shall be specified by the beneficial owner thereof.

All Securities issued upon any registration of transfer or exchange of Securities shall be valid obligations of the Company, evidencing the same debt and entitled to the same benefits under this Indenture, as the Securities surrendered upon such registration of transfer or exchange.

Every Registered Security presented or surrendered for registration of transfer or for exchange shall (if so required by the Company or the Security Registrar or any transfer agent) be duly endorsed, or be accompanied by a written instrument of transfer in form satisfactory to the Company and the Security Registrar, duly executed by the Holder thereof or his attorney or any transfer agent duly authorized in writing.

No service charge shall be made for any registration of transfer or exchange of Securities, but the Company or the Trustee may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with any registration of transfer or exchange of Securities, other than exchanges pursuant to Section 3.04 or 8.06 not involving any transfer.

Section 3.06 Mutilated, Destroyed, Lost and Stolen Securities.

If any mutilated Security is surrendered to the Trustee or the Company, together with, in proper cases, such security or indemnity as may be required by the Company or the Trustee to save each of them or any agent of either of them harmless, the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor a new Security of the same principal amount, containing identical terms and provisions and bearing a number not contemporaneously outstanding.

If there shall be delivered to the Company and to the Trustee (i) evidence to their satisfaction of the destruction, loss or theft of any Security, and (ii) such security or indemnity as may be required by them to save each of them and any agent of either of them harmless, then, in the absence of notice to the Company or the Trustee that such Security has been acquired by a protected purchaser, the Company shall, subject to the following paragraph, execute and upon its request the Trustee shall authenticate and deliver, in lieu of any such destroyed, lost or stolen Security, a new Security of the same principal amount, containing identical terms and provisions and bearing a number not contemporaneously outstanding.

Upon the issuance of any new Security under this Section 3.06, the Company may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto and any other expenses (including the fees and expenses of the Trustee) connected therewith.

Every new Security issued pursuant to this Section 3.06 in lieu of any destroyed, lost or stolen Security shall constitute an original additional contractual obligation of the Company, whether or not the destroyed, lost or stolen Security shall be at any time enforceable by anyone, and shall be entitled to all the benefits of this Indenture equally and proportionately with any and all other Securities duly issued hereunder.

The provisions of this Section 3.06 are exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities.

Table of Contents

Section 3.07 Persons Deemed Owners.

Prior to due presentment of a Registered Security for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name such Registered Security is registered as the owner of such Registered Security for the purpose of receiving payment of principal of and (subject to Section 3.05) interest on such Registered Security and for all other purposes whatsoever, and neither the Company, the Trustee nor any agent of the Company or the Trustee shall be affected by notice to the contrary.

None of the Company, the Trustee, any Paying Agent or the Security Registrar will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests of a Security in global form or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

Notwithstanding the foregoing, with respect to any Global Security, whether permanent or temporary, nothing herein shall prevent the Company, the Trustee, or any agent of the Company or the Trustee, from giving effect to any written certification, proxy or other authorization furnished by any Depositary, as a Holder, with respect to such Global Security or impair, as between such Depositary and owners of beneficial interests in such Global Security, the operation of customary practices governing the exercise of the rights of such Depositary (or its nominee) as Holder of such Global Security.

Section 3.08 Book-Entry Provisions for the Global Securities.

(1) Any Global Securities shall initially:

(a) be registered in the name of the Depositary;

(b) be delivered to the Trustee as the Securities Custodian for the Depositary; and

(c) bear the legend set forth in Section 2.04.

(2) Agent Members shall have no rights under this Indenture with respect to any Global Security held on their behalf by the Depositary, or the Trustee as its custodian, or under such Global Security, and the Depositary may be treated by the Company, the Trustee and any agent of the Company or the Trustee as the absolute owner of such Global Security for all purposes whatsoever. Notwithstanding the foregoing, nothing contained herein shall prevent the Company, the Trustee or any agent of the Company or Trustee from giving effect to any written certification, proxy or other authorization furnished by the Depositary or impair, as between the Depositary and the Agent Members, the operation of customary practices governing the exercise of the rights of a Holder of any Security.

(3) The Holder of a Global Security may grant proxies and otherwise authorize any Person, including Agent Members and Persons that may hold interests through Agent Members, to take any action which a Holder is entitled to take under this Indenture or the Securities.

(4) A Global Security may not be transferred, in whole or in part, to any Person other than the Depositary (or a nominee thereof), and no such transfer to any such other Person may be registered. Beneficial interests in a Global Security may be transferred in accordance with the rules and procedures of the Depositary.

(5) If at any time:

(a) the Depositary notifies the Company in writing that it is unwilling or unable to continue to act as Depositary for the Global Securities and a successor Depositary for the Global Securities is not appointed by the Company within 90 days of such notice;

Table of Contents

(b) the Depositary ceases to be registered as a clearing agency under the Exchange Act and a successor depositary for the Global Securities is not appointed by the Company within 90 days of such cessation;

(c) the Company, at its option, notifies the Trustee in writing that it elects to cause the issuance of the Definitive Securities under this Indenture in exchange for all or any part of the Securities represented by a Global Security or Global Securities, subject to the procedures of the Depositary; or

(d) an Event of Default has occurred and is continuing and the Registrar has received a request from the Depositary for the issuance of Definitive Securities in exchange for such Global Security or Global Securities;

the Depositary shall surrender such Global Security or Global Securities to the Trustee for cancellation and the Company shall execute, and the Trustee, upon receipt of an Officers Certificate and Company Order for the authentication and delivery of Securities, shall authenticate and deliver in exchange for such Global Security or Global Securities, Definitive Securities in an aggregate principal amount equal to the aggregate principal amount of such Global Security or Global Securities. Such certificate Securities shall be registered in such names as the Depositary shall identify in writing as the beneficial owners of the Securities represented by such Global Security or Global Securities (or any nominee thereof).

(6) Notwithstanding the foregoing, in connection with any transfer of beneficial interests in a Global Security to the beneficial owners thereof pursuant to subsection (5) of this Section 3.08, the Registrar shall reflect on its books and records the date and a decrease in the principal amount of such Global Security in an amount equal to the principal amount of the beneficial interests in such Global Security to be transferred.

Section 3.09 Cancellation.

(1) All Securities surrendered for payment, registration of transfer or exchange or conversion, if surrendered to any Person other than the Trustee, be delivered to the Trustee, and any such Securities surrendered directly to the Trustee for any such purpose shall be promptly cancelled by the Trustee. The Company may at any time deliver to the Trustee for cancellation any Securities previously authenticated and delivered hereunder which the Company may have acquired in any manner whatsoever, and may deliver to the Trustee (or to any other Person for delivery to the Trustee) for cancellation any Securities previously authenticated hereunder which the Company has not issued and sold, and all Securities so delivered shall be promptly cancelled by the Trustee. No Securities shall be authenticated in lieu of or in exchange for any Securities cancelled as provided in this Section 3.09, except as expressly permitted by this Indenture. Cancelled Securities held by the Trustee shall be destroyed by the Trustee in accordance with its customary procedures, unless by a Company Order the Company directs the Trustee to deliver a certificate of such destruction to the Company or to return them to the Company.

(2) At such time as all beneficial interests in a Global Security have either been exchanged for other Securities, surrendered for payment, converted, transferred or canceled, such Global Security shall be returned by the Depositary to the Trustee for cancellation or retained and canceled by the Trustee. At any time prior to such cancellation, if any beneficial interest in a Global Security is exchanged for other Securities, surrendered for payment, converted, transferred or canceled, the principal amount of Securities represented by such Global Security shall be reduced and an adjustment shall be made on the books and records of the Trustee (if it is then the Securities Custodian for such Global Security) or other Securities Custodian with respect to such Global Security, by the Trustee or the Securities Custodian, to reflect such reduction.

Section 3.10 CUSIP Numbers.

The Committee on Uniform Securities Identification Procedures (*CUSIP*) number for the Securities is [ ]. No notice or exchange shall be affected by any defect in or omission of such CUSIP number, and the Company shall notify the Trustee in writing as promptly as practicable of any change in the CUSIP number.

Table of Contents

Section 3.11 Withholding

(1) The Company (through the Paying Agent or otherwise) shall be entitled to reduce or otherwise set-off against any payments made or deemed made by the Company to Holders in respect of the provision of shares of Common Stock for any amounts the Company believes it is required to withhold by law. For the avoidance of doubt, if the Company pays any withholding taxes on behalf of Holders as a result of an adjustment to the Conversion Rate of the Securities, the Company may, at its option, set-off such payments against payments of cash and Common Stock in respect of the Securities. Any amounts withheld pursuant to this Section 3.11 shall be paid over by the Company (through the Paying Agent or otherwise) to the appropriate taxing authority.

(2) Prior to or upon the occurrence of any event that results in an actual or deemed payment by the Company to Holders in respect of the Securities, the Company (through the Trustee, Paying Agent, Withholding Agent, or otherwise) may request a Holder to furnish any appropriate documentation that may be required in order to determine the Company s withholding obligations under applicable law (including a United States Internal Revenue Service Form W-9, Form W-8BEN, Form W-8ECI, or any certifications prepared by the Company or on its behalf in order to enable the Company to attempt to comply with its potential withholding obligations under any tax laws). Upon the receipt of any such documentation, or in the event no such documentation is provided, the Company (through the Trustee, Paying Agent or otherwise) will withhold pursuant to this Section 3.11 to the extent required by applicable law.

Section 3.12 Issuance of Additional Securities.

In accordance with the terms of the Merger Agreement and the payment of the Second Payment Consideration (as defined in the Merger Agreement), the Company shall be entitled to issue Additional Securities under this Indenture which shall have identical terms as and be considered the same as the initial Securities issued on the Issue Date, other than with respect to the date of issuance. The initial Securities issued on the Issue Date and any Additional Securities issued in exchange therefor shall be treated as a single class for all purposes under this Indenture.

ARTICLE FOUR

REMEDIES

Section 4.01 Events of Default.

Event of Default means any one of the following events (whatever the reason for such Event of Default and whether or not it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body):

(1) default in the payment of the principal of or interest on any Security when due and payable at the Stated Maturity Date;

(2) failure by the Company to deliver shares of Common Stock required to be delivered upon conversion of a Security in accordance with Article Ten within 10 Business Days after the applicable Conversion Date;

(3) failure on the part of the Company duly to observe or perform any other of the covenants in the Securities, in this Indenture or in the Trust Agreement (other than default in performance of a covenant that is specifically dealt with elsewhere in this Section) and in any such case the continuance of such failure for a period of 30 days after the date on which written notice of such failure shall have been given to the Company by the Trustee or the holders of not less than 25% in aggregate principal amount of the Outstanding Securities;

Table of Contents

(4) default by the Company or any Subsidiary with respect to any mortgage, agreement or other instrument under which there may be outstanding, or by which there may be secured or evidenced, any debt for money borrowed in excess of $5.0 million in the aggregate of the Company and/or any such Subsidiary, whether such debt now exists or shall hereafter be created, which default results (i) in such debt becoming or being declared due and payable and such debt has not been discharged in full or such declaration rescinded or annulled within 30 days or (ii) from a failure to pay the principal of any such debt when due and payable at its stated maturity, upon required repurchase, upon declaration or otherwise and such defaulted payment shall not have been made, waived or extended within 30 days;

(5) failure by the Company or any Subsidiary, within 30 calendar days, to pay, bond or otherwise discharge any judgments or orders for the payment of money the total uninsured amount of which for the Company or any Subsidiary exceeds in the aggregate $1.0 million, which are not stayed on appeal;

(6) the Trust Agreement ceases to be in full force and effect or enforceable prior to its expiration in accordance with its terms;

(7) the Company or any Significant Subsidiary:

(a) commences a voluntary case or proceeding under any Bankruptcy Law;

(b) consents to the commencement of any bankruptcy or insolvency case or proceeding against it, or files a petition or answer or consent seeking reorganization or relief against it;

(c) consents to the entry of a decree or order for relief against it in an involuntary case or proceeding;

(d) consents to the filing of such petition or to the appointment of or taking possession by a Custodian of the Company or for all or substantially all of its property; or

(e) makes an assignment for the benefit of creditors, or admits in writing of its inability to pay its debts generally as they become due or takes any corporate action in furtherance of any such action; or

(8) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that:

(a) is for relief against the Company or any Significant Subsidiary in an involuntary case or proceeding;

(b) adjudges the Company or any Significant Subsidiary bankrupt or insolvent, or approves as properly filed a petition seeking reorganization, arrangement, adjustment or composition of or in respect of the Company;

(c) appoints a Custodian of the Company or any Significant Subsidiary or for all or substantially all of the Company s or any Significant Subsidiary s property; or

(d) orders the winding up or liquidation of the Company or any Significant Subsidiary;

and the continuance of any such decree or order for relief or any such other decree or order unstayed and in effect for a period of 90 consecutive days.

Section 4.02 Acceleration of Maturity.

If an Event of Default (other than an Event of Default specified in Section 4.01(7) or Section 4.01(8) with respect to the Company) occurs and is continuing, then and in every such case the Trustee or the Holders of not less than 25% in principal amount of the Outstanding Securities may declare the principal of and unpaid interest on all the Securities to be due and payable immediately, by a notice in writing to the Company (and to the

Table of Contents

Trustee if given by the Holders), and upon any such declaration such principal or specified portion thereof shall become immediately due and payable. If an Event of Default specified in Section 4.01(7) or Section 4.01(8) with respect to the Company occurs, the principal of and accrued interest on, all of the Securities shall become immediately due and payable without any declaration or other Act of the Holders or any act on the part of the Trustee.

This Section 4.02, however, is subject to the conditions that if, at any time after the principal of the Securities shall have been so declared due and payable, and before any judgment or decree for the payment of the monies due shall have been obtained or entered as hereinafter provided, the Company shall pay or shall deposit with the Trustee a sum sufficient to pay the accrued and unpaid interest upon all Securities, the principal of any and all Securities that shall have become due and the amounts due to the Trustee pursuant to Section 5.05, and if (1) rescission would not conflict with any judgment or decree of a court of competent jurisdiction and (2) any and all Events of Defaults under this Indenture with respect to such Securities, other than the nonpayment of principal of and accrued and unpaid interest on such Securities that shall have become due solely by such acceleration or failure to deliver amounts due upon conversion, shall have been cured or waived pursuant to Section 4.13, then and in every such case the Holders of a majority in aggregate principal amount of the Outstanding Securities, by written notice to the Company and to the Trustee, may waive all Defaults or Events of Default with respect to the Securities and rescind and annul such declaration and its consequences and such Default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured for every purpose of this Indenture; but no such waiver or rescission and annulment shall extend to or shall affect any subsequent Default or Event of Default, or shall impair any right consequent thereon. The Company shall notify the Trustee in writing, promptly upon becoming aware thereof, of any Event of Default by delivering to the Trustee a statement specifying such Event of Default and any action the Company has taken, is taking or proposes to take with respect thereto. No rescission or annulment referred to above shall affect any subsequent Default or impair any right consequent thereon.

Section 4.03 Collection of Indebtedness and Suits for Enforcement by Trustee.

The Company covenants that if default is made in the payment of the principal of and interest on any Security after the Stated Maturity Date, then the Company will, upon demand of the Trustee, pay to the Trustee, for the benefit of the Holders, the whole amount then due and payable on such Securities for principal and interest, and, in addition thereto, such further amount as shall be sufficient to cover the costs and expenses of collection, including the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel.

If the Company fails to pay such amounts forthwith upon such demand, the Trustee, in its own name and as trustee of an express trust, may institute a judicial proceeding for the collection of the sums so due and unpaid, and may prosecute such proceeding to judgment or final decree, and may enforce the same against the Company or any other obligor upon the Securities and collect the moneys adjudged or decreed to be payable in the manner provided by law out of the property of the Company or any other obligor upon the Securities, wherever situated.

If an Event of Default with respect to the Securities occurs and is continuing, the Trustee may in its discretion proceed to protect and enforce its rights and the rights of the Holders by such appropriate judicial proceedings as the Trustee shall deem most effectual to protect and enforce any such rights, whether for the specific enforcement of any covenant or agreement in this Indenture or in aid of the exercise of any power granted herein, or to enforce any other proper remedy.

Section 4.04 Trustee May File Proofs of Claim.

In case of the pendency of any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceeding relating to the Company or the property of the Company or its creditors, the Trustee (irrespective of whether the principal of the Securities shall then be due and

Table of Contents

payable as therein expressed or by declaration or otherwise and irrespective of whether the Trustee shall have made any demand on the Company for the payment of any overdue principal or interest) shall be entitled and empowered, by intervention in such proceeding or otherwise:

(i) to file and prove a claim for the whole amount of principal and interest, if any, owing and unpaid in respect of the Securities and to file such other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel) and of the Holders allowed in such judicial proceeding; and

(ii) to collect and receive any moneys or other property payable or deliverable on any such claims and to distribute the same;

and any custodian, receiver, assignee, trustee, liquidator, sequestrator (or other similar official) in any such judicial proceeding is hereby authorized by each Holder to make such payments to the Trustee, and, in the event that the Trustee shall consent to the making of such payments directly to the Holders, to pay to the Trustee any amount due to it for the reasonable compensation, expenses, disbursements and advances of the Trustee and any predecessor Trustee, their agents and counsel, and any other amounts due the Trustee or any predecessor Trustee under Section 5.05.

Subject to Article Seven and Section 8.02, nothing herein contained shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holder any plan of reorganization, arrangement, adjustment or composition affecting the Securities or the rights of any Holder thereof, or to authorize the Trustee to vote in respect of the claim of any Holder in any such proceeding.

Section 4.05 Trustee May Enforce Claims Without Possession of Securities.

All rights of action and claims under this Indenture or any of the Securities may be prosecuted and enforced by the Trustee without the possession of any of the Securities or the production thereof in any proceeding relating thereto, and any such proceeding instituted by the Trustee shall be brought in its own name and as trustee of an express trust, and any recovery of judgment shall, after provision for the payment of the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, be for the ratable benefit of the Holders of the Securities in respect of which such judgment has been recovered.

Section 4.06 Application of Money Collected.

Any money collected by the Trustee pursuant to this Article Four shall be applied in the following order, at the date or dates fixed by the Trustee and, in case of the distribution of such money on account of principal or interest, if any, upon presentation of the Securities, or both, as the case may be, and the notation thereon of the payment if only partially paid and upon surrender thereof if fully paid:

FIRST: To the payment of all amounts due the Trustee and any predecessor Trustee under Section 5.05;

SECOND: To the payment of the amounts then due and unpaid upon the Securities for principal and interest in respect of which or for the benefit of which such money has been collected, ratably, without preference or priority of any kind, according to the aggregate amounts due and payable on such Securities for principal and interest respectively; and

THIRD: To the payment of the remainder, if any, to the Company or any other Person or Persons entitled thereto.

Table of Contents

Section 4.07 Limitation on Suits.

No Holder shall have any right to pursue any remedy, with respect to this Indenture, or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless:

(1) such Holder has previously given written notice to the Trustee of a continuing Event of Default;

(2) the Holders of not less than 25% in principal amount of the Outstanding Securities shall have made written request to the Trustee to pursue any remedy;

(3) such Holder or Holders have offered to the Trustee reasonable indemnity against the costs, expenses and liabilities to be incurred in compliance with such written request;

(4) the Trustee for 60 days after its receipt of such notice, written request and offer of indemnity has failed to comply with such written request; and

(5) no direction inconsistent with such written request has been given to the Trustee during such 60-day period by the Holders of a majority in principal amount of the Outstanding Securities;

it being understood and intended that no one or more of such Holders shall have any right in any manner whatever by virtue of, or by availing of, any provision of this Indenture to affect, disturb or prejudice the rights of any other of such Holders, or to obtain or to seek to obtain priority or preference over any other of such Holders or to enforce any right under this Indenture, except in the manner herein provided and for the equal and ratable benefit of all such Holders.

Section 4.08 Unconditional Right of Holders to Receive Payment and to Convert.

Notwithstanding any other provision in this Indenture, the Holder of any Security shall have the right which is absolute and unconditional to receive payment of the principal of and interest on such Security on the Stated Maturity Date expressed in such Security and to convert such Security in accordance with Article Ten, and to institute suit for the enforcement of any such payment, and such rights shall not be impaired without the consent of such Holder.

Section 4.09 Restoration of Rights and Remedies.

If the Trustee or any Holder has instituted any proceeding to enforce any right or remedy under this Indenture and such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or to such Holder, then and in every such case the Company, the Trustee and the Holders shall, subject to any determination in such proceeding, be restored severally and respectively to their former positions hereunder and thereafter all rights and remedies of the Trustee and the Holders shall continue as though no such proceeding had been instituted.

Section 4.10 Rights and Remedies Cumulative.

Except as otherwise provided with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities in the last paragraph of Section 3.06, no right or remedy herein conferred upon or reserved to the Trustee or to the Holders is intended to be exclusive of any other right or remedy, and every right and remedy shall, to the extent permitted by law, be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

Table of Contents

Section 4.11 Delay or Omission Not Waiver.

No delay or omission of the Trustee or of any Holder to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of any such Event of Default or an acquiescence therein. Every right and remedy given by this Article Four or by law to the Trustee or to the Holders may be exercised from time to time, and as often as may be deemed expedient, by the Trustee or by the Holders, as the case may be.

Section 4.12 Control by Holders of Securities.

The Holders of a majority in principal amount of the Outstanding Securities shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power conferred on the Trustee with respect to the Securities, provided that:

(1) such direction shall not be in conflict with any rule of law or with this Indenture;

(2) the Trustee may take any other action deemed proper by the Trustee which is not inconsistent with such direction; and

(3) the Trustee need not take any action which might involve it in personal liability or be unjustly prejudicial to the Holders not consenting.

Section 4.13 Waiver of Past Defaults.

Subject to Section 4.02, the Holders of not less than a majority in principal amount of the Outstanding Securities may on behalf of the Holders of all the Securities waive any past default hereunder with respect to the Securities and its consequences, except a default:

(1) in the payment of the principal of or interest, if any, on any Security;

(2) in respect of the right to convert any Security in accordance with Article Ten; or

(3) in respect of a covenant or provision hereof which under Article Eight cannot be modified or amended without the consent of the Holder of each Outstanding Security affected.

Upon any such waiver, such default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured, for every purpose of this Indenture; but no such waiver shall extend to any subsequent or other default or Event of Default or impair any right consequent thereon.

Section 4.14 Waiver of Stay or Extension Laws.

The Company covenants (to the extent that it may lawfully do so) that it will not at any time insist upon, or plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay or extension law wherever enacted, now or at any time hereafter in force, which may affect the covenants or the performance of this Indenture; and the Company (to the extent that it may lawfully do so) hereby expressly waives all benefit or advantage of any such law, and covenants that it will not hinder, delay or impede the execution of any power herein granted to the Trustee, but will suffer and permit the execution of every such power as though no such law had been enacted.

Section 4.15 Undertaking for Costs.

In any suit for the enforcement of any right or remedy under this Indenture, or in any suit against the Trustee for any action taken, suffered or omitted by it as Trustee, a court may require any party litigant in such suit to file

an undertaking to pay the costs of such suit, and may assess reasonable costs, including reasonable attorneys fees and expenses, against any such party litigant, in the manner and to the extent provided in the Trust Indenture Act; *provided*, that neither this Section nor the Trust Indenture Act shall be deemed to authorize any court to require such an undertaking or to make such an assessment in any suit instituted by the Company or in any suit for the enforcement of the right to convert any Security in accordance with Article Ten.

ARTICLE FIVE

THE TRUSTEE

Section 5.01 Duties of Trustee and Notice of Defaults.

Subject to the provisions of Sections 315(a) through 315(d) of the Trust Indenture Act:

(1) If a Default or an Event of Default has occurred and is continuing, the Trustee shall exercise such of the rights and powers vested in it by this Indenture and use the same degree of care and skill in its exercise thereof as a prudent Person would exercise or use under the circumstances in the conduct of his own affairs;

(2) Except during the continuance of a Default or an Event of Default, the Trustee need perform only those duties as are specifically set forth in this Indenture and no covenants or obligations shall be implied in this Indenture that are adverse to the Trustee;

(3) The Trustee may not be relieved from liability for its own negligent action, its own negligent failure to act or its own willful misconduct, except that:

(a) this subsection (3) does not limit the effect of subsection (2) of Section 1.02 or subsection (2) of this Section 5.01;

(b) the Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer, unless it is proved that the Trustee was negligent in ascertaining the pertinent facts; and

(c) the Trustee shall not be liable with respect to any action it takes or omits to take in good faith, in accordance with a direction of the Holders of a majority in principal amount of Outstanding Securities relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power confirmed upon the Trustee under this Indenture;

(4) No provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder or in the exercise of any of its rights or powers if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it; and

(5) The Trustee shall not be liable for interest on any money or assets received by it or held by it in trust except as the Trustee may agree in writing with the Company. Money held by the Trustee in trust hereunder need not be segregated from other funds except to the extent required by law.

Within 90 days after the occurrence of any Default hereunder with respect to the Securities, the Trustee shall transmit in the manner and to the extent provided in Section 313(c) of the Trust Indenture Act, notice of such Default hereunder known to the Trustee (a *Notice of Default*), unless such Default shall have been cured or waived; *provided*, *however*, that, except in the case of a Default in the payment of the principal of or interest on any Security on the Stated Maturity Date, the Trustee shall be protected in withholding such Notice of Default if and so long as the board of directors, the executive committee or a trust committee of directors and/or Responsible Officers of the Trustee in good faith determine that the withholding of such notice is in the interest of the Holders.

Table of Contents

Section 5.02 Certain Rights of Trustee.

Subject to Section 5.01 and the provisions of Sections 315(a) through 315(d) of the Trust Indenture Act:

(1) The Trustee may rely on, and shall be protected in acting or refraining from acting upon, any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, coupon or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;

(2) Any request or direction of the Company mentioned herein shall be sufficiently evidenced by a Company Request or Company Order (other than delivery of any Security to the Trustee for authentication and delivery pursuant to Section 3.03 which shall be sufficiently evidenced as provided therein) and any resolution of the Board of Directors may be sufficiently evidenced by a Board Resolution;

(3) Whenever in the administration of this Indenture the Trustee shall deem it desirable that a matter be proved or established prior to taking, suffering or omitting any action hereunder, the Trustee (unless other evidence be herein specifically prescribed) may, in the absence of bad faith on its part, rely upon a Board Resolution, an Opinion of Counsel or an Officers Certificate;

(4) The Trustee may consult with counsel and the written advice of such counsel or any Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon;

(5) The Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request or direction of any of the Holders pursuant to this Indenture, unless such Holders shall have offered to the Trustee reasonable security or indemnity against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction;

(6) The Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, coupon or other paper or document, but the Trustee, in its discretion, may make such further inquiry or investigation into such facts or matters as it may see fit, and, if the Trustee shall determine to make such further inquiry or investigation, it shall be entitled upon reasonable notice and at reasonable times during normal business hours to examine the books, records and premises of the Company, personally or by agent or attorney;

(7) The Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys and the Trustee shall not be responsible for any misconduct or negligence on the part of any agent or attorney appointed with due care by it hereunder;

(8) The Trustee shall not be deemed to have notice of any Default or Event of Default unless a Responsible Officer of the Trustee has actual knowledge thereof or unless written notice of any event which is in fact such a default is sent to the Trustee at the Corporate Trust Office of the Trustee, and such notice references the Securities and this Indenture;

(9) The rights, privileges, protections, immunities and benefits given to the Trustee, including its right to be indemnified, are extended to, and shall be enforceable by, the Trustee in each of its capacities hereunder;

(10) The permissive rights of the Trustee enumerated herein shall not be construed as duties; and

(11) The Trustee may request that the Company deliver an Officers Certificate setting forth the names of individuals and/or titles of officers authorized at such time to take specified actions pursuant to this Indenture,

Table of Contents

which Officers Certificate may be signed by any person authorized to sign an Officers Certificate, including any person specified as so authorized in any such certificate previously delivered and not superseded.

The Trustee shall not be required to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it.

Section 5.03 Not Responsible for Recitals or Issuance of Securities.

The recitals contained herein and in the Securities, except the Trustee s certificate of authentication, shall be taken as the statements of the Company, and neither the Trustee nor any Authenticating Agent assumes any responsibility for their correctness. The Trustee makes no representations as to the validity or sufficiency of this Indenture or of the Securities, except that the Trustee represents that it is duly authorized to execute and deliver this Indenture, authenticate the Securities and perform its obligations hereunder and that the statements made by it in a Statement of Eligibility on Form T-1 supplied to the Company are true and accurate, subject to the qualifications set forth therein. Neither the Trustee nor any Authenticating Agent shall be accountable for the use or application by the Company of Securities or the proceeds thereof.

Section 5.04 May Hold Securities.

The Trustee, any Paying Agent, Security Registrar, Authenticating Agent, Conversion Agent or any other agent of the Company, in its individual or any other capacity, may become the owner of Securities and, subject to Sections 310(b) and 311 of the Trust Indenture Act, may otherwise deal with the Company with the same rights it would have if it were not Trustee, Paying Agent, Security Registrar, Authenticating Agent, Conversion Agent or such other agent.

Section 5.05 Compensation and Reimbursement and Indemnification of Trustee.

The Company agrees:

(1) To pay to the Trustee or any predecessor Trustee from time to time such reasonable compensation for all services rendered by it hereunder as has been agreed upon from time to time in writing (which compensation shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust);

(2) Except as otherwise expressly provided herein, to reimburse each of the Trustee and any predecessor Trustee upon its request for all reasonable and documented expenses, disbursements and advances incurred or made by the Trustee or any predecessor Trustee in accordance with any provision of this Indenture, except any such expense, disbursement or advance as may be attributable to its negligence, bad faith or willful misconduct; and

(3) To indemnify each of the Trustee or any predecessor Trustee for, and to hold it harmless against, any loss, liability or expense incurred without negligence or bad faith on its own part, arising out of or in connection with the acceptance or administration of the trust or trusts hereunder, including the costs and expenses of defending itself against any claim or liability in connection with the exercise or performance of any of its powers or duties hereunder.

As security for the performance of the obligations of the Company under this Section 5.05, the Trustee shall have a claim prior to the Securities upon all property and funds held or collected by the Trustee as such, except funds held in trust for the payment of principal of or interest, if any, on particular Securities.

When the Trustee incurs expenses or renders services after an Event of Default specified in Section 4.01 occurs, the expenses and compensation for such services are intended to constitute expenses of administration under any Bankruptcy Law.

Table of Contents

The provisions of this Section 5.05 shall survive the resignation or removal of the Trustee and the satisfaction, termination or discharge of this Indenture.

Section 5.06 Corporate Trustee Required; Eligibility.

There shall at all times be a Trustee hereunder which shall be eligible to act as Trustee under Section 310(a)(1) of the Trust Indenture Act and shall have a combined capital and surplus of at least $10 million. If such corporation publishes reports of condition at least annually, pursuant to law or to the requirements of any Federal, state, territorial or District of Columbia supervising or examining authority, then for the purposes of this Section 5.06, the combined capital and surplus of such corporation shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. If at any time the Trustee shall cease to be eligible in accordance with the provisions of this Section 5.06, it shall resign immediately in the manner and with the effect hereinafter specified in this Article Five.

Section 5.07 Disqualification; Conflicting Interests.

If the Trustee has or shall acquire a conflicting interest within the meaning of the Trust Indenture Act, the Trustee shall either eliminate such interest or resign, to the extent and in the manner provided by, and subject to the provisions of, the Trust Indenture Act and this Indenture.

Section 5.08 Resignation and Removal; Appointment of Successor.

(a) No resignation or removal of the Trustee and no appointment of a successor Trustee pursuant to this Article Five shall become effective until the acceptance of appointment by the successor Trustee in accordance with the applicable requirements of Section 5.09.

(b) The Trustee may resign at any time by giving written notice thereof to the Company.

(c) The Trustee may be removed at any time by (i) the Company, by an Officers Certificate delivered to the Trustee, provided that contemporaneously therewith (x) the Company immediately appoints a successor Trustee meeting the requirements of Section 5.06 hereof and (y) the terms of Section 5.09 hereof are complied with in respect of such appointment (the Trustee being removed hereby agreeing to execute the instrument contemplated by Section 5.09(b) hereof, if applicable, under such circumstances) and *provided further* that no Default shall have occurred and then be continuing at such time, or (ii) Act of the Holders of a majority in principal amount of the Outstanding Securities delivered to the Trustee and to the Company.

(d) If at any time:

(1) the Trustee shall fail to comply with the provisions of Section 310(b) of the Trust Indenture Act after written request therefore by the Company or by any Holder of a Security who has been a bona fide Holder of a Security for at least six months;

(2) the Trustee shall cease to be eligible under Section 5.06 and shall fail to resign after written request therefore by the Company or by any Holder of a Security who has been a bona fide Holder of a Security for at least six months; or

(3) the Trustee shall become incapable of acting or shall be adjudged a bankrupt or insolvent or a receiver of the Trustee or of its property shall be appointed or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation;

then, in any such case, (i) the Company by or pursuant to a Board Resolution may remove the Trustee and appoint a successor Trustee, or (ii) subject to Section 315(e) of the Trust Indenture Act, any Holder of a Security who has been a bona fide Holder of a Security for at least six months may, on behalf of himself and all others

similarly situated, petition any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor Trustee.

(e) If an instrument of acceptance by a successor Trustee shall not have been delivered to the Trustee within 30 days after the giving of a notice of resignation or the delivery of an Act of removal, the Trustee resigning or being removed may petition any court of competent jurisdiction for the appointment of a successor Trustee.

(f) If the Trustee shall resign, be removed or become incapable of acting, or if a vacancy shall occur in the office of Trustee for any cause, the Company, by or pursuant to a Board Resolution, shall promptly appoint a successor Trustee. If no successor Trustee shall have been so appointed by the Company and accepted appointment in the manner hereinafter provided within 90 days, any Holder who has been a bona fide Holder for at least six months may, on behalf of himself and all others similarly situated, petition any court of competent jurisdiction for the appointment of a successor Trustee.

(g) All retiring Trustees must provide the Successor Trustee with all applicable books and records relating to the performance of the role of Trustee.

(h) The Company shall give notice of each resignation and each removal of the Trustee and each appointment of a successor Trustee in the manner provided for notices to the Holders in Section 1.06. Each notice shall include the name of the successor Trustee and the address of its Corporate Trust Office.

Section 5.09 Acceptance of Appointment by Successor.

(a) In case of the appointment hereunder of a successor Trustee, every such successor Trustee shall execute, acknowledge and deliver to the Company and to the retiring Trustee an instrument accepting such appointment, and thereupon the resignation or removal of the retiring Trustee shall become effective and such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee; *provided*, *however*, that on request of the Company or the successor Trustee, such retiring Trustee shall, upon payment of its charges, execute and deliver an instrument transferring to such successor Trustee all the rights, powers and trusts of the retiring Trustee, and shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder, subject nevertheless to its claim, if any, provided for in Section 5.05.

(b) Upon request of any such successor Trustee, the Company shall execute any and all instruments for more fully and certainly vesting in and confirming to such successor Trustee all such rights, powers and trusts referred to in paragraph (a) of this Section 5.09, as the case may be.

(c) No successor Trustee shall accept its appointment unless at the time of such acceptance such successor Trustee shall be qualified and eligible under this Article Five.

Section 5.10 Merger, Conversion, Consolidation or Succession to Business.

Any corporation into which the Trustee may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which the Trustee shall be a party, or any corporation succeeding to all or substantially all of the corporate trust business of the Trustee, shall be the successor of the Trustee hereunder, provided such corporation shall be otherwise qualified and eligible under this Article Five, without the execution or filing of any paper or any further act on the part of any of the parties hereto. In case any Securities shall have been authenticated, but not delivered, by the Trustee then in office, any successor by merger, conversion or consolidation to such authenticating Trustee may adopt such authentication and deliver the Securities so authenticated with the same effect as if such successor Trustee had itself authenticated such Securities. In case any Securities shall not have been authenticated by such predecessor Trustee, any such successor Trustee may authenticate and deliver such Securities, in either its own name or that

Table of Contents

of its predecessor Trustee, with the full force and effect which this Indenture provides for the certificate of authentication of the Trustee; *provided*, *however*, that the right to adopt the certificate of authentication of any predecessor Trustee or to authenticate Securities in the name of any predecessor Trustee shall apply only to its successor or successors by merger, conversion or consolidation.

Section 5.11 Appointment of Authenticating Agent.

At any time when any of the Securities remain Outstanding, the Trustee may appoint an Authenticating Agent or Agents acceptable to the Company which shall be authorized to act on behalf of the Trustee to authenticate Securities issued upon original issue or upon exchange, registration of transfer or partial redemption thereof, and Securities so authenticated shall be entitled to the benefits of this Indenture and shall be valid and obligatory for all purposes as if authenticated by the Trustee hereunder. Any such appointment shall be evidenced by an instrument in writing signed by a Responsible Officer of the Trustee, a copy of which instrument shall be promptly furnished to the Company. Wherever reference is made in this Indenture to the authentication and delivery of Securities by the Trustee or the Trustee s certificate of authentication, such reference shall be deemed to include authentication and delivery on behalf of the Trustee by an Authenticating Agent and a certificate of authentication executed on behalf of the Trustee by an Authenticating Agent. Each Authenticating Agent shall be acceptable to the Company and shall at all times be a bank or trust company or corporation organized and doing business and in good standing under the laws of the United States of America or of any state or the District of Columbia, authorized under such laws to act as Authenticating Agent, having a combined capital and surplus of not less than $10 million and subject to supervision or examination by Federal or state authorities. If such Authenticating Agent publishes reports of condition at least annually, pursuant to law or the requirements of the aforesaid supervising or examining authority, then for the purposes of this Section 5.11, the combined capital and surplus of such Authenticating Agent shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. In case at any time an Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section 5.11, such Authenticating Agent shall resign immediately in the manner and with the effect specified in this Section 5.11.

Any corporation into which an Authenticating Agent may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which such Authenticating Agent shall be a party, or any corporation succeeding to the corporate agency or corporate trust business of an Authenticating Agent, shall continue to be an Authenticating Agent, provided such corporation shall be otherwise eligible under this Section 5.11, without the execution or filing of any paper or further act on the part of the Trustee or the Authenticating Agent.

An Authenticating Agent may at any time resign by giving written notice of resignation to the Trustee and to the Company. The Trustee may at any time terminate the agency of an Authenticating Agent by giving written notice of termination to such Authenticating Agent and to the Company. Upon receiving such a notice of resignation or upon such a termination, or in case at any time such Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section 5.11, the Trustee may appoint a successor Authenticating Agent which shall be acceptable to the Company and shall promptly give written notice of such appointment to all Holders. Any successor Authenticating Agent upon acceptance of its appointment hereunder shall become vested with all the rights, powers and duties of its predecessor hereunder, with like effect as if originally named as an Authenticating Agent herein. No successor Authenticating Agent shall be appointed unless eligible under the provisions of this Section 5.11.

The Company agrees to pay to each Authenticating Agent from time to time reasonable compensation including reimbursement of its reasonable and documented expenses for its services under this Section 5.11.

If an appointment is made pursuant to this Section 5.11, the Securities may have endorsed thereon, in addition to or in lieu of the Trustee s certificate of authentication, an alternate certificate of authentication substantially in the following form:

Table of Contents

This is one of the Securities referred to in the within-mentioned Indenture.

AMERICAN STOCK TRANSFER & TRUST

COMPANY, LLC, Trustee

By:
Authenticating Agent

By:
Authorized Officer

If all of the Securities may not be originally issued at one time, and the Trustee does not have an office capable of authenticating Securities upon original issuance located in a Place of Payment where the Company wishes to have Securities authenticated upon original issuance, the Trustee, if so requested by the Company in writing (which writing need not comply with Section 1.02 and need not be accompanied by an Opinion of Counsel), shall appoint in accordance with this Section 5.11 an Authenticating Agent having an office in a Place of Payment designated by the Company with respect the Securities, provided that the terms and conditions of such appointment are acceptable to the Trustee.

ARTICLE SIX

HOLDERS LISTS AND REPORTS BY TRUSTEE AND COMPANY

Section 6.01 Disclosure of Names and Addresses of Holders.

In accordance with Section 312(a) of the Trust Indenture Act, the Company shall furnish or cause to be furnished to the Trustee:

(1) semi-annually a list, in each case in such form as the Trustee may reasonably require, of the names and addresses of Holders as of the applicable date; and

(2) at such other times as the Trustee may request in writing, within 30 days after the receipt by the Company of any such request, a list of similar form and content as of a date not more than 15 days prior to the time such list is furnished;

provided, *however*, that so long as the Trustee is the Security Registrar no such list shall be required to be furnished.

Section 6.02 Preservation of Information; Communications to Holders.

The Trustee shall comply with the obligations imposed upon it pursuant to Section 312 of the Trust Indenture Act.

Every Holder, by receiving and holding the same, agrees with the Company and the Trustee that neither the Company, the Trustee, any Paying Agent nor any Security Registrar shall be held accountable by reason of the disclosure of any such information as to the names and addresses of the Holders in accordance with Section 312 of the Trust Indenture Act, regardless of the source from which such information was derived, and that the Trustee shall not be held accountable by reason of mailing any material pursuant to a request made under Section 312(b) of the Trust Indenture Act.

Table of Contents

Section 6.03 Reports by Trustee.

Within 60 days after May 15 of each year commencing with May 15, 2010, the Trustee, if so required under the Trust Indenture Act, shall transmit by mail to all Holders of Securities as provided in Section 313(c) of the Trust Indenture Act a brief report dated as of such May 15 which meets the requirements of Section 313(a) of the Trust Indenture Act.

A copy of each such report shall, at the time of such transmission to Holders, be filed by the Trustee with each stock exchange, if any, upon which the Securities are listed, with the Commission and with the Company. The Company will promptly notify the Trustee of the listing of the Securities on any stock exchange. The Trustee also will comply with Section 313(b)(2) of the Trust Indenture Act.

Section 6.04 Reports by Company.

The Company shall file with the Trustee within 30 days after the Company is required to file the same with the Commission, copies of the annual reports and information, documents and other reports (or copies of such portions of the foregoing as the Commission may prescribe) which the Company is required to file with the Commission pursuant to Section 13 or 15(d) of the Exchange Act. If the Company is not required to file information, documents or reports pursuant to either of those sections, then the Company shall provide to the Trustee such reports as may be prescribed to be filed by the Company by the Commission at such time. To the extent the Company has filed such information with the Commission through the Commission s Electronic Data Gathering, Analysis and Retrieval (commonly known as *EDGAR*) system, or any successor system employed by the Commission, the Company shall be deemed to have complied with this Section 6.04.

Delivery of such reports, information and documents to the Trustee is for informational purposes only and the Trustee s receipt of such shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Company s compliance with any of its covenants hereunder (as to which the Trustee is entitled to rely exclusively on Officers Certificates).

Section 6.05 Preferential Collection of Claims Against Company.

The Trustee is subject to Section 311(a) of the Trust Indenture Act, excluding any creditor relationship listed in Section 311(b) of the Trust Indenture Act. A Trustee who has resigned or been removed shall be subject to Section 311(a) of the Trust Indenture Act to the extent indicated therein.

ARTICLE SEVEN

CONSOLIDATION, MERGER, CONVEYANCE OR TRANSFER

Section 7.01 Company May Consolidate, Etc., Only on Certain Terms.

The Company shall not consolidate with or merge with or into any other corporation or convey or transfer its properties and assets substantially as an entirety to any Person, unless:

(1) the successor entity which shall be a Corporation organized and existing under the laws of any state of the United States of America or the District of Columbia, any country comprising the European Union, the United Kingdom or Japan shall expressly assume, by an indenture supplemental hereto executed by the successor Person and delivered to the Trustee, the due and punctual payment of the principal of and interest on all the Securities and the performance of every obligation in this Indenture and the Outstanding Securities on the part of the Company to be performed or observed and shall provide for conversion rights in accordance with the provisions of the Indenture and the Securities and if any such successor entity is not subject to the jurisdiction of any state of the United States of America or the District of Columbia, such entity submits to jurisdiction for all purposes with respect to the Securities and appoints an agent for service of process in the United States of America;

Table of Contents

(2) immediately after giving effect to such transaction or series of transactions, no Event of Default or event which, after notice or lapse of time, or both, would become an Event of Default, shall have occurred and be continuing; and

(3) either the Company or the successor Person shall have delivered to the Trustee an Officers Certificate and an Opinion of Counsel, each stating that such consolidation, merger, conveyance, transfer or lease and, if a supplemental indenture is required in connection with such transaction, such supplemental indenture comply with this Article Seven and that all conditions precedent herein provided for relating to such transaction have been complied with.

Notwithstanding the foregoing, the Company may consolidate with, or merge with or into, an Affiliate incorporated for the purpose of incorporating in another jurisdiction of the United States of America or any state thereof or the District of Columbia without complying with the requirement of paragraph (2) above.

Notwithstanding the foregoing, subject to compliance with Section 9.07 and the terms of the Trust Agreement, the Company may convey, transfer or lease all or substantially all of its properties and assets as an entirety to any Subsidiary or Subsidiaries, in one transaction or a series of related transactions and the transfer by the Company, in a single transaction or series of transactions, of all or substantially all of its cash, cash equivalents and marketable securities of non-Affiliates for which the Company receives fair market value, as determined by its Board of Directors, will not constitute a sale of all or substantially all of the Company s assets.

For purposes of this Section, the sale, lease, conveyance, assignment, transfer, or other disposition of all or substantially all of the properties and assets of one or more Subsidiaries, which property and assets, if held by the Company instead of such Subsidiaries, would constitute all or substantially all of the properties and assets of the Company on a consolidated basis, shall be deemed to be the transfer of all or substantially all of the properties and assets of the Company.

Section 7.02 Successor Person Substituted.

Upon any consolidation or merger, or any conveyance or transfer of the properties and assets of the Company substantially as an entirety in accordance with Section 7.01, the successor corporation formed by such consolidation or into which the Company is merged, or the successor Person to which such conveyance or transfer is made, shall succeed to, and be substituted for, and may exercise every right and power of, the Company under this Indenture with the same effect as if such successor had been named as the Company herein; and in the event of any such conveyance or transfer, except in the case of a lease to another Person, the Company shall be discharged from all obligations and covenants under this Indenture and the Securities.

ARTICLE EIGHT

SUPPLEMENTAL INDENTURES

Section 8.01 Supplemental Indentures Without Consent of Holders.

Without the consent of any Holders of Securities, the Company, when authorized by or pursuant to a Board Resolution, and the Trustee, at any time and from time to time, may enter into one or more indentures supplemental hereto, in form reasonably satisfactory to the Trustee, for any of the following purposes:

(1) to evidence the succession of another Person to the Company and the assumption by any such successor of the covenants of the Company herein and in the Securities contained;

(2) to add to the covenants of the Company for the benefit of the Holders or to surrender any right or power herein conferred upon the Company;

(3) to add any additional Events of Default for the benefit of the Holders; *provided*, *however*, that in respect of any such additional Events of Default such supplemental indenture may provide for a particular period of grace after default (which period may be shorter or longer than that allowed in the case of other Defaults) or may provide for an immediate enforcement upon such Default or may limit the remedies available to the Trustee upon such Default or may limit the right of the Holders of a majority in aggregate principal amount of the Securities to which such additional Events of Default apply to waive such default;

(4) to evidence and provide for the acceptance of appointment hereunder by a successor Trustee with respect to the Securities; or

(5) to cure any ambiguity, to correct or supplement any provision herein which may be inconsistent with any other provision herein, or to make any other provisions with respect to matters or questions arising under this Indenture; *provided* that such action shall not adversely affect the interests of the Holders in any material respect.

Section 8.02 Supplemental Indentures with Consent of Holders.

With the consent of the Holders of not less than a majority in aggregate principal amount of all Outstanding Securities, by Act of said Holders delivered to the Company and the Trustee, the Company, when authorized by or pursuant to a Board Resolution, and the Trustee may enter into an indenture or indentures supplemental hereto for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of this Indenture which affects the Securities or of modifying in any manner the rights of the Holders of Securities under this Indenture; *provided*, *however*, that no such supplemental indenture shall, without the consent of the Holder of each Outstanding Security affected thereby:

(1) change the Stated Maturity Date of the Securities, reduce the principal amount of, or interest payable on the Securities, reduce the amount thereof provable in bankruptcy pursuant to Section 4.04, change the currency of payment or Place of Payment where any Security or any principal of or interest thereon is payable, impair the right to institute suit for the enforcement of any such payment on or after the Stated Maturity Date thereof or adversely affect any right to convert any Security as may be provided herein;

(2) reduce the percentage in principal amount of the Outstanding Securities, the consent of whose Holders is required for any such supplemental indenture, or the consent of whose Holders is required for any waiver (of compliance with certain provisions of this Indenture or certain defaults hereunder and their consequences) provided for in this Indenture, or reduce the requirements for quorum or voting; or

(3) modify any of the provisions of Section 4.13 or this Section 8.02, except to increase any such percentage or to provide that certain other provisions of this Indenture cannot be modified or waived without the consent of the Holder of each Outstanding Security affected thereby; *provided*, *however*, that this clause shall not be deemed to require the consent of any Holder with respect to changes in the references to the Trustee and concomitant changes in this Section 8.02, or the deletion of this proviso, in accordance with the requirements of Section 8.01(6).

It shall not be necessary for any Act of Holders under this Section 8.02 to approve the particular form of any proposed supplemental indenture, but it shall be sufficient if such Act shall approve the substance thereof.

The Company may, but shall not be obligated to, fix a record date for the purpose of determining the Persons entitled to consent to any indenture supplemental hereto. If a record date is fixed, the Holders on such record date, or their duly designated proxies, and only such Persons, shall be entitled to consent to such supplemental indenture, whether or not such Holders remain Holders after such record date; *provided*, that unless such consent shall have become effective by virtue of the requisite percentage having been obtained prior to the date which is 90 days after such record date, any such consent previously given shall automatically and without further action by any Holder be cancelled and of no further effect.

Table of Contents

Section 8.03 Execution of Supplemental Indentures.

In executing, or accepting the additional trusts created by, any supplemental indenture permitted by this Article Eight or the modification thereby of the trusts created by this Indenture, the Trustee shall be entitled to receive, and shall be fully protected in relying upon, in addition to the documents required by Section 1.02 of this Indenture, an Opinion of Counsel stating that the execution of such supplemental indenture is authorized or permitted by this Indenture. The Trustee may, but shall not be obligated to, enter into any such supplemental indenture which affects the Trustee s own rights, duties or immunities under this Indenture or otherwise.

Section 8.04 Effect of Supplemental Indentures.

Upon the execution of any supplemental indenture under this Article Eight, this Indenture shall be modified in accordance therewith, and such supplemental indenture shall form a part of this Indenture for all purposes; and every Holder theretofore or thereafter authenticated and delivered hereunder shall be bound thereby.

Section 8.05 Conformity with Trust Indenture Act.

Every supplemental indenture executed pursuant to this Article Eight shall conform to the requirements of the Trust Indenture Act as then in effect.

Section 8.06 Reference in Securities to Supplemental Indentures.

Securities authenticated and delivered after the execution of any supplemental indenture pursuant to this Article Eight may, and shall, if required by the Trustee, bear a notation in form approved by the Trustee as to any matter provided for in such supplemental indenture. If the Company shall so determine, new Securities so modified as to conform, in the opinion of the Trustee and the Company, to any such supplemental indenture may be prepared and executed by the Company and authenticated and delivered by the Trustee in exchange for Outstanding Securities.

ARTICLE NINE

COVENANTS

Section 9.01 Payment of Principal and Interest.

The Company covenants and agrees for the benefit of the Holders that it will duly and punctually pay the principal of and interest on the Securities in accordance with the terms of the Securities and this Indenture.

Section 9.02 Maintenance of Office or Agency.

The Company shall maintain in each Place of Payment an office or agency where Securities may be presented or surrendered for payment, where Securities may be surrendered for registration of transfer, where Securities may be surrendered for conversion and where notices and demands to or upon the Company in respect of the Securities and this Indenture may be served. The Company will give prompt written notice to the Trustee of the location, and any change in the location, of each such office or agency. If at any time the Company shall fail to maintain any such required office or agency in respect of the Securities or shall fail to furnish the Trustee with the address thereof, such presentations, surrenders, notices and demands may be made or served at the Corporate Trust Office of the Trustee, and the Company hereby appoints the same as its agent to receive such respective presentations, surrenders, notices and demands, and the Company hereby appoints the Trustee its agent to receive all such presentations, surrenders, notices and demands.

The Company may also from time to time designate one or more other offices or agencies where the Securities may be presented or surrendered for any or all of such purposes, and may from time to time rescind

Table of Contents

such designations; *provided*, *however*, that no such designation or rescission shall in any manner relieve the Company of its obligation to maintain an office or agency in accordance with the requirements set forth above for Securities for such purposes. The Company will give prompt written notice to the Trustee of any such designation or rescission and of any change in the location of any such other office or agency. The Company hereby designates as a Place of Payment the office or agency of the Corporate Trust Office, and initially appoints the Trustee at its Corporate Trust Office as Paying Agent and as its agent to receive all such presentations, surrenders, notices and demands.

Section 9.03 Money for Securities Payments to Be Held in Trust.

The Company will, on or before the Stated Maturity Date, deposit with the Paying Agent or Paying Agents a sum sufficient to pay the principal and interest so becoming due, such sum of money to be held in trust for the benefit of the Persons entitled to such principal and interest and (unless such Paying Agent is the Trustee) the Company will promptly notify the Trustee of its action or failure so to act.

Any money deposited with the Trustee or any Paying Agent in trust for the payment of the principal of or interest on any Security not converted in accordance with Article Ten hereof and remaining unclaimed for two years after the Stated Maturity Date shall be paid to the Company upon Company Request; and the Holder of such Security shall thereafter, as an unsecured general creditor, look only to the Company for payment thereof, and all liability of the Trustee or such Paying Agent with respect to such money held in trust, shall thereupon cease.

Section 9.04 Statement as to Compliance.

The Company will deliver to the Trustee, within 120 days after the end of each fiscal year ending after the date hereof so long as any Security is Outstanding hereunder, a brief certificate from the principal executive officer or principal financial officer of the Company as to his or her knowledge of the Company s compliance with all conditions and covenants under this Indenture. For purposes of this Section 9.04, such compliance shall be determined without regard to any period of grace or requirement of notice under this Indenture.

Section 9.05 Corporate Existence.

Subject to Article Seven, the Company shall do or cause to be done all things necessary to preserve and keep in full force and effect the corporate existence and related rights and franchises (charter and statutory) of the Company.

Section 9.06 Reports to Holders.

Within 45 days following the end of each fiscal quarter in which the Securities are outstanding, the Company shall furnish to Holders a statement setting forth the principal amount of the Securities at the close of such fiscal quarter as well as information regarding the amount of interest capitalized to such Securities during such fiscal quarter.

Section 9.07 Liens.

The Company shall not, and shall cause each Subsidiary not to create or suffer to exist any Lien upon the Trust Account or the Property.

Section 9.08 Trust Agreement.

(1) Concurrent with the initial issuance of the Securities, the Company shall enter into the Trust Agreement and deposit an amount equal to the principal amount of the Securities in the Trust Account (such amounts

Table of Contents

deposited in the Trust Account and the principal amount of any Additional Securities deposited in the Trust Account, together with accrued interest thereon less amounts attributable to Securities converted in accordance with Article Ten hereof, the *Property*). In accordance with the terms and conditions of the Trust Agreement, the Company shall use the Property to pay the principal amount of and accrued interest on the Securities at the Stated Maturity Date.

(2) If any Security is converted pursuant to Article Ten, the portion of the Property corresponding to the principal amount (and any accrued interest thereon of such Security) shall be retained by the Company in accordance with the Trust Agreement.

(3) The Trustee and each of the Holders acknowledge that a release of the Property or a lien in accordance with the provisions of the Trust Agreement and of this Indenture will not be deemed for any purpose to be an impairment of the Property in contradiction of the terms of this Indenture or the Trust Indenture Act.

ARTICLE TEN

CONVERSION

Section 10.01 Conversion of Securities.

(1) *Right to Convert.*

(a) Subject to the procedures for conversion set forth in this Article Ten, a Holder may convert its Securities prior to the close of business on the final Business Day of each calendar month (each such date, as such date may be delayed in accordance with Section 10.02(3), a *Conversion Date*) into the number of shares of Common Stock equal to the principal amount of such Security multiplied by the Conversion Rate in effect at such time. Upon conversion, the Holder will not receive any separate cash payment for accrued and unpaid interest, if any.

(b) If the Company is a party to an Alternate Reorganization Event, a Holder may surrender Securities for conversion at any time, after the Company gives the notice referred to in the last sentence of this Section 10.01(1)(b), from and after the 15th Trading Day prior to the anticipated effective date of such transaction or event until the Business Day that is immediately prior to the effective date of such transaction. The Company shall notify, in the manner provided for in Sections 1.05 and 1.06, as applicable, each of the Holders and the Trustee of the Alternate Reorganization Event no later than 15 Trading Days prior to the anticipated effective date of the Alternate Reorganization Event.

(2) *Conversion Procedures.* The following procedures shall apply to conversions of Securities:

(a) In respect of a Definitive Security, a Holder must (A) complete and manually sign the conversion notice on the back of the Security, or a facsimile of such conversion notice; (B) deliver such conversion notice, which is irrevocable, and the Security to the Conversion Agent on or prior to the applicable Conversion Date; (C) if required, furnish appropriate endorsements and transfer documents as may be required by the Conversion Agent and, if required pursuant to Section 10.01(4) below, pay all transfer or similar taxes; and (D) if required pursuant to Section 3.11, pay funds equal to the amount of applicable withholding taxes; and

(b) In respect of a beneficial interest in a Global Security, a Beneficial Owner must comply with the Depositary s procedures for converting a beneficial interest in a Global Security and, if required pursuant to Section 3.11, pay funds equal to the amount of applicable withholding taxes, and if required, pay all taxes or duties required pursuant to Section 10.01(4) below, if any.

(3) *Issuance of Shares; Cash Payments in Lieu of Fractional Shares.* As promptly as practicable on or after each Conversion Date and in any event within 10 Business Days of each Conversion Date, the Company shall

Table of Contents

issue the number of whole shares of Common Stock issuable upon conversion, with any fractional shares (after aggregating all Securities being converted by a Holder on such date) rounded down to the nearest whole share of Common Stock. In addition, the Company shall deliver cash for the current market value of the fractional share, which shall be determined to the nearest 1/1,000th of a share by multiplying the Closing Price of a full share of Common Stock on the Conversion Date by the fractional amount and rounding the product to the nearest whole cent. The Company s delivery to the Holder of the full principal amount of the Security in shares of Common Stock into which a Security is convertible together with any cash payment for any fractional share shall be deemed to satisfy in full the Company s obligation to pay (i) the principal amount of the Security; and (ii) accrued and unpaid interest, if any, to, but not including, the date of conversion. As a result, accrued and unpaid interest, if any, to, but not including, the Conversion Date will be deemed to be paid in full rather than cancelled, extinguished or forfeited.

(4) *Taxes on Conversion.* If a Holder converts Securities, the Company shall pay any documentary, stamp or similar issue or transfer tax due on the issue of shares of Common Stock upon the conversion. However, the Holder shall pay any such tax which is due because the Holder requests the shares to be issued in a name other than the Holder s name. The Conversion Agent may refuse to deliver the certificates representing the Common Stock being issued in a name other than the Holder s name until the Conversion Agent receives a sum sufficient to pay any tax which shall be due because the shares are to be issued in a name other than the Holder s name, but the Conversion Agent shall have no duty to determine if any such tax is due. Nothing herein shall preclude any withholding of tax required by law.

(5) *Certain Covenants of the Company.*

(a) The Company shall, prior to issuance of any Securities hereunder, and from time to time as may be necessary prior to the Stated Maturity Date, reserve out of its authorized but unissued Common Stock or shares of Common Stock held in treasury, sufficient number of shares of Common Stock, free of preemptive rights, to permit the conversion of the Securities.

(b) All shares of Common Stock delivered upon conversion of the Securities shall be newly issued shares or treasury shares, shall be duly and validly issued and fully paid and nonassessable and shall be free from preemptive rights and free of any lien or adverse claim.

(c) The Company shall endeavor promptly to comply with all federal and state securities laws regulating the issuance and delivery of shares of Common Stock upon the conversion of Securities, if any.

Table of Contents

Section 10.02 Adjustments to Conversion Rate.

The Conversion Rate shall be adjusted from time to time (successively and for each event described) by the Company as follows:

(1) If the Company shall, at any time or from time to time while any of the Securities are outstanding, issue shares of Common Stock as a dividend or distribution on shares of Common Stock, or if the Company effects a share split or share combination in respect of the Common Stock, then the Conversion Rate shall be adjusted based on the following formula:

where

CR_0	=	the Conversion Rate in effect immediately prior to the Close of Business on the Record Date for such dividend or distribution, or, if no Record Date, immediately prior to the effective date of such share split or share combination, as applicable;
CR	=	the new Conversion Rate in effect immediately after the Close of Business on the Record Date for such dividend or distribution, or, if no Record Date, immediately prior to the effective date of such share split or share combination, as applicable;
OS_0	=	the number of shares of Common Stock outstanding immediately prior to the Close of Business on the Record Date for such dividend or distribution, or, if no Record Date, immediately prior to the effective date of such share split or share combination, as applicable; and
OS	=	the number of shares of Common Stock outstanding immediately after such dividend or distribution, or, if no Record Date, immediately after the Close of Business on the effective date of such share split or share combination, as applicable.

Such adjustment shall become effective immediately after the Close of Business on the Record Date fixed for such dividend or distribution, or, if no Record Date, immediately prior to the opening of business on the effective date for such share split or share combination. If any dividend or distribution of the type described in this Section 10.02(1) is declared but not so paid or made, or the outstanding shares of Common Stock are not split or combined, as the case may be, the Conversion Rate shall be immediately readjusted, effective as of the date the Board of Directors determines not to pay such dividend or distribution, or split or combine the outstanding shares of Common Stock, as the case may be, to the Conversion Rate that would then be in effect if such dividend, distribution, share split or share combination had not been declared.

The Company shall not pay any dividend or make any distribution on shares of Common Stock held in treasury by the Company.

Table of Contents

(2) Except as otherwise provided for by Section 10.02(3) below, if the Company shall, at any time or from time to time while any of the Securities are outstanding, distribute to all or substantially all holders of its outstanding shares of Common Stock any options, rights or warrants entitling them for a period of not more than 45 calendar days from the Record Date of such distribution to subscribe for or purchase shares of Common Stock at a price per share less than the Closing Price of the Common Stock on the Trading Day immediately preceding the Record Date of such distribution, the Conversion Rate shall be adjusted based on the following formula:

where

CR_0	=	the Conversion Rate in effect immediately prior to the Close of Business on the Record Date for such distribution;
CR	=	the new Conversion Rate in effect immediately after the Close of Business on the Record Date for such distribution;
OS_0	=	the number of shares of Common Stock outstanding immediately prior to the Close of Business on the Record Date for such distribution;
X	=	the total number of shares of Common Stock issuable pursuant to such options, rights or warrants; and
Y	=	the number of shares of Common Stock equal to the aggregate price payable to exercise such options, rights or warrants divided by the average Closing Price of the Common Stock over the 10 consecutive Trading Day period ending on the Record Date.

Such adjustment shall be successively made whenever any such options, rights or warrants are distributed and shall become effective immediately after the Close of Business on the record date for such distribution. To the extent that shares of Common Stock are not delivered pursuant to any such options, rights or warrants that are non-transferable upon the expiration or termination of such options, rights or warrants, the Conversion Rate shall be readjusted to the Conversion Rate that would then be in effect had the adjustments made upon the distribution of such options, rights or warrants been made on the basis of the delivery of only the number of shares of Common Stock actually delivered.

In determining the aggregate price payable to exercise such options, rights or warrants, there shall be taken into account any amount payable on exercise thereof, with the value of such consideration, if other than cash, to be determined in good faith by the Board of Directors.

Table of Contents

(3) If the Company, at any time or from time to time while any of the Securities are outstanding, shall, by dividend or otherwise, distribute to all or substantially all holders of its Common Stock shares of any class of Capital Stock of the Company (other than Common Stock as covered by Section 10.02(1)), evidences of its indebtedness, assets, property or rights or warrants to acquire Capital Stock or other securities, but excluding (i) dividends or distributions as to which an adjustment under Section 10.02(1), Section 10.02(2) or Section 10.02(4) hereof shall apply and (ii) Spin-Offs to which the provision set forth below in this Section 10.02(3) shall apply (any of such shares of Capital Stock, indebtedness, assets, property or rights or warrants to acquire Common Stock or other securities, hereinafter in this Section 10.02(3) called the *Distributed Property*), then, in each such case the Conversion Rate shall be adjusted based on the following formula:

Where

CR_0	=	the Conversion Rate in effect immediately prior to the Close of Business on the Record Date for such distribution;
CR	=	the new Conversion Rate in effect immediately after the Close of Business on the Record Date for such distribution;
SP_0	=	the average Closing Price of the Common Stock over the 10 consecutive Trading Day period ending on the Record Date for such distribution; and
FMV	=	the fair market value (as determined in good faith by the Board of Directors) of the portion of Distributed Property with respect to each outstanding share of Common Stock on the Record Date for such distribution.

Such adjustment shall become effective immediately after the Close of Business on the Record Date for such distribution; *provided* that if FMV as set forth above is equal to or greater than SP_0 as set forth above, then in lieu of the foregoing adjustment, the Company shall distribute to each holder of Securities on the date such Distributed Property is distributed to holders of Common Stock, but without requiring such holder to convert its Securities, the amount of Distributed Property such holder would have received had such holder owned a number of shares of Common Stock equal to the product of (a) the Conversion Rate on the Record Date fixed for determination for shareholders entitled to receive such distribution and (b) the principal amount of such capitalized Security. If the Board of Directors determines FMV for purposes of this Section 10.02(3) by reference to the actual or when issued trading market for any securities, it shall in doing so consider the prices in such market over the same period used in computing the average Closing Price of the Common Stock for purposes of calculating SP_0 in the formula in this Section 10.02(3).

Table of Contents

With respect to an adjustment pursuant to this Section 10.02(3) where there has been a payment of a dividend or other distribution on the Common Stock consisting of shares of Capital Stock of any class or series, or similar equity interest, of or relating to a Subsidiary or other business unit of the Company (a *Spin-Off*), the Conversion Rate in effect immediately before the Close of Business on the 10th Trading Day immediately following, and including, the effective date of the Spin-Off shall be increased based on the following formula:

where

CR_0	=	the Conversion Rate in effect immediately prior to the Close of Business on the 10th Trading Day immediately following the effective date of the Spin-Off;
CR	=	the new Conversion Rate in effect immediately after the Close of Business on the 10th Trading Day immediately following the effective date of the Spin-Off;
FMV	=	the average of the Closing Prices of the Capital Stock or similar equity interest distributed to holders of Common Stock applicable to one share of Common Stock over the 10 consecutive Trading Day period immediately following, and including, the effective date of the Spin-Off; and
MP_0	=	the average Closing Price of the Common Stock over the 10 consecutive Trading Day period calculated immediately following, and including, the effective date of the Spin-Off.

Such adjustment shall occur on the 10th Trading Day from, and including, the effective date of the Spin-Off. In the event that a Conversion Date occurs within the 10 Trading Days from, and including, the effective date of the Spin-Off, such Conversion Date shall be delayed until the conclusion of such 10 Trading Day period without further action by the Company.

For purposes of this Section 10.02(3), Section 10.02(1) and Section 10.02(2) hereof, any dividend or distribution to which this Section 10.02(3) is applicable that also includes shares of Common Stock to which Section 10.02(1) hereof applies, or rights or warrants to subscribe for or purchase shares of Common Stock to which Section 10.02(1) or 10.02(2) hereof applies (or both), shall be deemed instead to be (i) a dividend or distribution of the evidences of indebtedness, assets or shares of Capital Stock other than such shares of Common Stock or rights or warrants to which Section 10.02(1) or 10.02(2) hereof applies (and any Conversion Rate adjustment required by this Section 10.02(3) with respect to such dividend or distribution shall then be made) immediately followed by (ii) a dividend or distribution of such shares of Common Stock or such options, rights or warrants to which Section 10.02(1) or 10.02(2) hereof applies (and any further Conversion Rate adjustment required by Section 10.02(1) and 10.02(2) hereof with respect to such dividend or distribution shall then be made), except (A) the Close of Business on the Record Date of such dividend or distribution shall be substituted for the Close of Business on the Record Date, the Close of Business on the Record Date or the effective date, after the Close of Business on the Record Date for such dividend or distribution or the effective date of such share split or share combination and the Close of Business on the Record Date for such distribution within the meaning of Section 10.02(1) and Section 10.02(2) hereof and (B) any shares of Common Stock included in such dividend or distribution shall not be deemed outstanding immediately prior to the Close of Business on the Record Date or the Close of Business on the effective date within the meaning of Section 10.02(1) hereof.

Table of Contents

(4) In case the Company shall pay dividends or make distributions consisting exclusively of cash to all or substantially all holders of its Common Stock, the Conversion Rate shall be adjusted based on the following formula:

Where

CR_0	=	the Conversion Rate in effect immediately prior to the Record Date for such distribution;
CR	=	the new Conversion Rate in effect immediately after the Record Date for such distribution;
SP_0	=	the Closing Price of Common Stock on the Trading Day immediately preceding the Record Date for such distribution; and
C	=	the amount in cash per share distributed to holders of Common Stock in such distribution.

Such adjustment shall become effective immediately prior to the opening of business on the Record Date for such dividend or distribution; *provided* that if the portion of the cash so distributed applicable to one share of the Common Stock is equal to or greater than SP_0 as set forth above, in lieu of the foregoing adjustment, adequate provision shall be made so that each Holder of Securities shall receive on the date on which such cash dividend is distributed to holders of Common Stock, the amount of cash such holder would have received had such holder owned a number of shares equal to the product of (a) Conversion Rate on the Record Date for such distribution and (b) the principal of such Security, without being required to convert the Securities. If such dividend or distribution is not so paid or made, the Conversion Rate shall again be adjusted to be the Conversion Rate that would then be in effect if such dividend or distribution had not been declared.

For the avoidance of doubt, for purposes of this subsection (4), in the event of any reclassification of the Common Stock, as a result of which the Securities become convertible into more than one class of Common Stock, if an adjustment to the Conversion Rate is required pursuant to this subsection (4), references in this Section 10.02 to one share of Common Stock or Closing Price of one share of Common Stock shall be deemed to refer to a unit or to the price of a unit consisting of the number of shares of each class of Common Stock into which the Securities are then convertible equal to the numbers of shares of such class issued in respect of one share of Common Stock in such reclassification. The above provisions of this paragraph shall similarly apply to successive reclassifications.

Table of Contents

(5) If the Company makes a payment of cash or other consideration in respect of a tender offer or exchange offer for all or any portion of the Common Stock, where such cash and the value of any such other consideration included in the payment per share of Common Stock validly tendered or exchanged exceeds the Closing Price of the Common Stock on the Trading Day next succeeding the last date (the *Expiration Date*) on which tenders or exchanges may be made pursuant to such tender or exchange offer (as it may be amended), the Conversion Rate shall be increased based on the following formula:

Where

CR_0	=	the Conversion Rate in effect immediately prior to the Close of Business on the Expiration Date;
CR	=	the new Conversion Rate in effect immediately after the Close of Business on the Expiration Date;
AC	=	the aggregate value of all cash and any other consideration (as determined in good faith by the Board of Directors) paid for shares purchased in such tender or exchange offer;
OS_0	=	the number of shares of Common Stock outstanding immediately prior to the date such tender or exchange offer expires;
OS	=	the number of shares of Common Stock outstanding immediately after the date such tender or exchange offer expires (after giving effect to such tender offer or exchange offer); and
SP	=	the average Closing Price of Common Stock over the ten consecutive Trading Days ending on the Trading Day next succeeding the Expiration Date.

Such adjustment shall become effective immediately after the Close of Business on the Expiration Date. If the Company or Subsidiary is obligated to purchase shares of Common Stock pursuant to any such tender or exchange offer, but the Company or Subsidiary is permanently prevented by applicable law from effecting any such purchases or all or any portion of such purchases are rescinded, then the Conversion Rate shall again be adjusted to be the Conversion Rate that would then be in effect if such tender or exchange offer had not been made or had only been made in respect of the purchases that were effected.

(6) If this Section 10.02 applies to any event or occurrence, Section 10.03 shall not apply in respect of such event or occurrence.

Section 10.03 Effect of Reclassification, Consolidation, Merger or Sale.

(1) If any of the following events occur (any such event or transaction satisfying both subclauses (a) and (b) of this Section 10.03(1), a *Reorganization Event*): (a) (i) any recapitalization, reclassification or change of Common Stock (other than a subdivision or combination) as a result of which the Common Stock would be converted into, or exchanged for, stock, other securities, or other property or assets (or any combination thereof), (ii) any statutory share exchange, consolidation or merger involving the Company pursuant to which the

Table of Contents

Common Stock will be converted into cash, securities or other property (or any combination thereof), or (iii) any sale, lease or other transfer in one transaction or a series of transactions of all or substantially all of the consolidated assets of the Company and its Subsidiaries, taken as a whole, to any Person as a result of which the Common Stock will be converted into cash, securities or other property (or any combination thereof) and (b) the equity securities of the surviving entity are registered with the U.S. Securities and Exchange Commission under the Exchange Act, then the Company or the successor or purchasing Person, as the case may be, shall execute with the Trustee a supplemental indenture (which shall comply with the Trust Indenture Act as in force at the date of execution of such supplemental indenture) providing that at the effective time of the Reorganization Event each Security shall be convertible into the kind and amount of shares of stock, other securities or other property or assets (including cash or any combination thereof) that a holder of a number of shares of Common Stock equal to the Conversion Rate immediately prior to such Reorganization Event would have owned or been entitled to receive upon such Reorganization Event (the *Reference Property*). For purposes of the foregoing, the type and amount of consideration that a holder of Common Stock would have been entitled to receive in the case of any such Reorganization Event that causes the Common Stock to be converted into the right to receive more than a single type of consideration (determined based in part upon any form of stockholder election) shall be deemed to be the weighted average of the types and amounts of consideration received by the holders of Common Stock that affirmatively make such an election. Such supplemental indenture shall provide for provisions and adjustments which shall be as nearly equivalent as may be practicable to the provisions and adjustments provided for in this Article Ten, as determined in good faith by the Company (which determination shall be conclusive and binding), to make such provisions apply to such other Person if different from the original issuer of the Securities. If, in the case of any Reorganization Event, the cash, securities or other property receivable thereupon by a holder of Common Stock includes cash, securities or other property of a Person other than the successor or purchasing Person, as the case may be, in such Reorganization Event, then such supplemental indenture shall also be executed by such successor or purchasing Person, as the case may be, and shall contain such additional provisions to protect the interests of the Holders of the Securities as the Board of Directors shall reasonably consider necessary by reason of the foregoing.

(2) Following the effective time of any such Reorganization Event, settlement of Securities converted shall be in cash and units of Reference Property determined in accordance with Section 10.03(1) above based on the Conversion Rate and Current Market Price of such Reference Property. For the purposes of determining such Conversion Rate and Current Market Price, if the Reference Property includes securities for which the price cannot be determined in a manner contemplated by the definition of Current Market Price or other property, then the value of such property shall be the fair market value of such property as determined by the Board of Directors in good faith, and if the Reference Property includes cash, then the value of such cash shall be the amount thereof.

(3) The Company shall cause notice of the execution of any supplemental indenture required by this Section 10.03 to be mailed to each Holder of Securities, at its address appearing on the Securities Register provided for in Section 3.05 of this Indenture, within 20 calendar days after execution thereof. Failure to deliver such notice shall not affect the legality or validity of such supplemental indenture.

(4) The above provisions of this Section 10.03 shall similarly apply to successive Reorganization Events.

(5) If this Section 10.03 applies to any event or occurrence, Section 10.02 shall not apply in respect of such event or occurrence.

(6) None of the foregoing provisions shall affect the right of a Holder of Securities to convert the Securities into cash and shares of Common Stock, if applicable, as set forth in Section 10.01 prior to the effective time of such Reorganization Event.

(7) Notwithstanding the foregoing, if any of the following events occur (any such event or transaction satisfying both subclauses (a) and (b) of this Section 10.03(7), an *Alternate Reorganization Event*): (a) (i) any

recapitalization, reclassification or change of Common Stock (other than a subdivision or combination) as a result of which the Common Stock would be converted into, or exchanged for, stock, other securities, or other property or assets (or any combination thereof), (ii) any statutory share exchange, consolidation or merger involving the Company pursuant to which the Common Stock will be converted into cash, securities or other property (or any combination thereof), or (iii) any sale, lease or other transfer in one transaction or a series of transactions of all or substantially all of the consolidated assets of the Company and its Subsidiaries, taken as a whole, to any Person as a result of which the Common Stock will be converted into cash, securities or other property (or any combination thereof) and (b) the equity securities of the surviving entity are not registered with the U.S. Securities and Exchange Commission under the Exchange Act, then the Company or the successor or purchasing Person, as the case may be, shall execute with the Trustee a supplemental indenture (which shall comply with the Trust Indenture Act as in force at the date of execution of such supplemental indenture) providing that at the effective time of such event the conversion features in Article Ten shall be eliminated and the principal of and all interest on any Outstanding Securities shall be due on the Stated Maturity Date.

Section 10.04 Responsibility of Trustee.

The Trustee and any other Conversion Agent shall not at any time be under any duty or responsibility to the Company or any Holder of Securities to determine the Conversion Rate, or whether any facts exist which may require any adjustment of the Conversion Rate, or with respect to the nature or extent or calculation of any such adjustment when made, or with respect to the method employed in making the same. The Trustee and any other Conversion Agent shall not be accountable with respect to the validity or value (or the kind or amount) of any shares of Common Stock, or of any securities or property, which may at any time be issued or delivered upon the conversion of any Security; and the Trustee and any other Conversion Agent make no representations with respect thereto. Neither the Trustee nor any Conversion Agent shall be responsible for any failure of the Company to issue, transfer or deliver any cash or shares of Common Stock or stock certificates or other securities or property upon the surrender of any Security for the purpose of conversion or to comply with any of the duties, responsibilities or covenants of the Company contained in this Article Ten. Without limiting the generality of the foregoing, neither the Trustee nor any Conversion Agent shall be under any responsibility to determine whether a supplemental indenture needs to be entered into pursuant to Section 8.03 or the correctness of any provisions contained in any supplemental indenture relating either to the kind or amount of shares of stock or securities or property (including cash) receivable by Holders upon the conversion of their Securities after any Reorganization Event or to any adjustment to be made with respect thereto, but, subject to the provisions of Section 5.01, may accept as conclusive evidence of the correctness of any such provisions, and shall be protected in relying upon, the Officers Certificate (which the Company shall be obligated to file with the Trustee prior to the execution of any such supplemental indenture) with respect thereto.

Section 10.05 Notice to Holders Prior to Certain Actions.

In case:

(1) the Company shall declare a dividend (or any other distribution) on the Common Stock that would require an adjustment in the Conversion Rate pursuant to Section 10.02;

(2) the Company shall authorize the granting to the holders of all or substantially all of the Common Stock of rights or warrants to subscribe for or purchase any shares of Common Stock; or

(3) of any reclassification or reorganization of the Common Stock of the Company (other than a subdivision or combination of its outstanding Common Stock, or a change in par value, or from par value to no par value, or from no par value to par value), or of any consolidation or merger to which the Company is a party and for which approval of any stockholders of the Company is required, or of the sale or transfer of all or substantially all of the assets of the Company; or

Table of Contents

(4) of the voluntary or involuntary dissolution, liquidation or winding up of the Company,

then the Company shall cause to be filed with the Trustee and to be mailed to each Holder of Securities at his address appearing on the Securities Register provided for in Section 3.05 of this Indenture, as promptly as possible but in any event at least 20 days prior to the applicable date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution or granting of rights or warrants, or, if a record is not to be taken, the date as of which the holders of Common Stock of record to be entitled to such dividend, distribution or rights are to be determined, or (y) the date on which such reclassification, reorganization, consolidation, merger, sale, transfer, dissolution, liquidation or winding up is expected to become effective or occur, and the date as of which it is expected that holders of Common Stock of record shall be entitled to exchange their Common Stock for securities or other property deliverable upon such reclassification, reorganization, consolidation, merger, sale, transfer, dissolution, liquidation or winding up. Failure to give such notice, or any defect therein, shall not affect the legality or validity of such dividend, distribution, reclassification, reorganization, consolidation, merger, sale, transfer, dissolution, liquidation or winding up.

Section 10.06 Stockholder Rights Plan.

To the extent that the Company has a rights plan in effect upon conversion of the Securities into Common Stock, Holders that convert their Securities will receive, in addition to the Common Stock, the rights under the rights plan, unless prior to any conversion, the rights have separated from the Common Stock, in which case, and only in such case, the Conversion Rate will be adjusted at the time of separation as if the Company distributed to all holders of Common Stock shares of Capital Stock, evidences of indebtedness or assets as described in Section 10.02(3) above, subject to readjustment in the event of the expiration, termination or redemption of such rights. In lieu of any such adjustment, the Company may amend such applicable stockholder rights agreement to provide that upon conversion of the Securities the Holders will receive, in addition to the Common Stock issuable upon such conversion, the rights which would have attached to such Common Stock if the rights had not become separated from the Common Stock under such applicable stockholder rights agreement.

* * * * *

Table of Contents

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed, as of the day and year first above written.

MEDICINOVA, INC.

By:
Name:

Title:

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC, Trustee

By:
Name:

Title:

Table of Contents

EXHIBIT A

FORM OF GLOBAL SECURITY

MEDICINOVA, INC.

{FORM OF FACE OF GLOBAL SECURITY}

UNLESS THIS CERTIFICATE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION, TO MEDICINOVA, INC. (THE COMPANY) OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY CERTIFICATE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY (AND ANY PAYMENT HEREON IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL SINCE THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.

TRANSFERS OF THIS GLOBAL SECURITY SHALL BE LIMITED TO TRANSFERS TO NOMINEES OF THE DEPOSITORY TRUST COMPANY OR TO A SUCCESSOR THEREOF OR SUCH SUCCESSOR S NOMINEE AND TRANSFERS OF PORTIONS OF THIS GLOBAL SECURITY SHALL BE LIMITED TO TRANSFERS MADE IN ACCORDANCE WITH THE RESTRICTIONS SET FORTH IN THE INDENTURE REFERRED TO ON THE REVERSE HEREOF.

Table of Contents

MEDICINOVA, INC.

Floating Rate Secured Convertible Notes due 2011

No.: CUSIP:

Issue Date: Principal Amount:

MEDICINOVA, INC., a Delaware corporation, promises to pay to Cede & Co. or its registered assigns, the principal amount as set forth on Schedule I hereto, on , 2011 [the 18 month anniversary of the date of the Indenture], subject to the further provisions of this Security set forth on the reverse hereof, which further provisions shall for all purposes have the same effect as if set forth at this place. Beneficial interests in this Security are convertible as specified on the other side of this Security.

Unless the certificate of authentication hereon has been duly executed by the Trustee referred to on the reverse hereof by manual signature, this Security shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purposes.

IN WITNESS WHEREOF, MediciNova, Inc. has caused this Security to be fully executed.

MEDICINOVA, INC.

Dated:

By:
Name: Yuichi Iwaki, M.D., Ph.D.
Title: President and Chief Executive Officer

By:
Name: Shintaro Asako
Title: Chief Financial Officer and Secretary

TRUSTEE S CERTIFICATE OF AUTHENTICATION

This is one of the Securities referred to in the within-mentioned Indenture.

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC,
Trustee

By:
Authorized Officer

Table of Contents

{FORM OF REVERSE SIDE OF GLOBAL SECURITY}

MEDICINOVA, INC.

Floating Rate Secured Convertible Note due 2011

Section 1. *Indenture*.

This Security is one of a duly authorized issue of debt securities of MediciNova, Inc., a Delaware corporation (such corporation, and its successors and assigns under the Indenture (as defined below), being herein called the *Company*) designated as its Floating Rate Secured Convertible Notes due 2011 (herein called the *Securities*), issued under an indenture dated as of , 2009 (as amended or supplemented from time to time, the *Indenture*), by and between the Company and American Stock Transfer & Trust Company, LLC, as trustee (the *Trustee*, which term includes any successor Trustee under the Indenture). The terms of the Securities include those stated in the Indenture and those made part of the Indenture by reference to the Trust Indenture Act of 1939, as amended (the *Trust Indenture Act*), and the Indenture sets forth the respective rights, limitations of rights, duties and immunities thereunder of the Company, the Trustee and each Holder of Securities and of the terms upon which the Securities are, and are to be, authenticated and delivered. The summary of the terms of this Security contained herein does not purport to be complete and is qualified by reference to the Indenture, and Holders are referred to the Indenture and the Trust Indenture Act for a statement of the Securities terms. Capitalized terms used in this Security that are not defined herein shall have the same meanings assigned to them in the Indenture.

The Securities are general secured obligations of the Company limited to up to $38.5 million aggregate principal amount. The Indenture does not limit other indebtedness of the Company, secured or unsecured.

Section 2. *Principal and Interest*.

The Company promises to pay on , 2011 [the 18 month anniversary of the date of the Indenture] (the *Stated Maturity Date*) (i) the principal amount set forth on Schedule I of this Security to the registered Holder of this Security in the Security Register and (ii) all accrued interest on such principal amount as invested pursuant to the terms and conditions of the Trust Agreement dated as of , 2009, by and between the Company and the Trustee.

Section 3. *Method of Payment*.

The Company, through the Paying Agent, shall pay the principal amount and all accrued interest due on the Stated Maturity Date to the Person who is the registered Holder of this Security in the Security Register. The Company shall pay all payments of principal and interest in money of the United States that at the time of payment is legal tender for payment of public and private debts.

Section 4. *Paying Agent, Conversion Agent, Security Registrar, and Securities Custodian*.

Initially, the Trustee shall act as Paying Agent, Conversion Agent, Security Registrar and Securities Custodian. The Company may appoint and change any Paying Agent, Conversion Agent, Security Registrar or Securities Custodian without notice, other than notice to the Trustee.

Section 5. *Conversion*.

Subject to the provisions of Article Ten of the Indenture, a Holder of a Security may convert such Security prior to the close of business on the final Business Day of each calendar month (each such date, as such date may be delayed in accordance with Section 10.02(3) of the Indenture, a *Conversion Date*) into the number of shares

Table of Contents

of Common Stock equal to the principal amount of such Security multiplied by the Conversion Rate in effect at such time. Upon conversion, the Holder shall not receive any separate cash payment for accrued and unpaid interest, if any. No fractional shares shall be issued upon conversion; in lieu thereof, the Company shall deliver cash for the current market value of any fractional share, which shall be determined to the nearest 1/1,000 th of a share by multiplying the Closing Price of a full share of Common Stock on the Conversion Date by the fractional amount and rounding the product to the nearest whole cent.

To convert a beneficial interest in this Security, a Beneficial Owner must complete and deliver to the Depositary appropriate instructions pursuant to the Depositary s procedures for converting a beneficial interest in a Global Security and, if required pursuant to Section 3.11 of the Indenture, pay funds equal to the amount of applicable withholding taxes, and if required, pay all taxes or duties required pursuant to Section 10.01(4) of the Indenture, if any.

Section 6. *Global Security*.

So long as this Security is registered in the name of the Depositary, members of, or participants in, the Depositary (*Agent Members*) shall have no rights under the Indenture with respect to this Security held on their behalf by the Depositary, or the Trustee as its custodian, or under this Security, and the Depositary may be treated by the Company, the Trustee or any agent of the Company or Trustee as the absolute owner of this Security for all purposes whatsoever. Notwithstanding the foregoing, nothing contained in the Indenture or this Security shall prevent the Company, the Trustee or any agent of the Company or Trustee from giving effect to any written certification, proxy or other authorization furnished by the Depositary or impair, as between the Depositary and the Agent Members, the operation of customary practices governing the exercise of the rights of a Holder of any Security.

The Holder of this Security may grant proxies and otherwise authorize any Person, including Agent Members and Persons that may hold interests through Agent Members, to take any action which a Holder is entitled to take under the Indenture or the Securities.

Whenever, as a result of conversion of beneficial interests in this Security or the exchange of a portion of this Security for Definitive Securities, this Security is converted or exchanged in part, this Security shall be surrendered by the Holder hereof to the Trustee who shall cause an adjustment to be made on Schedule I hereof so that the principal amount of this Security shall be equal to the portion not converted or exchanged and shall thereafter return this Security to such Holder.

Section 7. *Transfer and Exchange*.

The Holder of this Security shall, by acceptance of this Security, agree that the transfers of beneficial interests in this Security may be effected only though a book-entry system maintained by such Holder (or its agent), and that ownership of a beneficial interest shall be required to be reflected in book-entry form.

Transfers of this Security shall be limited to transfers, in whole or in part, to the Depositary (or a nominee thereof). Interests in beneficial owners in this Global Security may be transferred in accordance with the rules and procedures of the Depositary.

This Security shall be exchanged by the Company for one or more Definitive Securities if (i) the Depositary notifies the Company in writing that it is unwilling or unable to continue to act as Depositary for this Security and a successor Depositary for this Security is not appointed by the Company within 90 days of such notice, (ii) the Depositary ceases to be registered as a clearing agency under the Exchange Act and a successor depositary for this Security is not appointed by the Company within 90 days of such cessation, (iii) the Company, at its option, notifies the Trustee in writing that it elects to cause the issuance of the Definitive Securities under this Indenture in exchange for all or any part of the Securities represented by this Security, subject to the

procedures of the Depositary, or (iv) an Event of Default has occurred and is continuing and the Security Registrar has received a request from the Depositary for the issuance of Definitive Securities in exchange for this Security. Whenever this Security is exchanged for one or more Definitive Securities, the Company shall execute, and the Trustee, upon receipt of an Officers Certificate and Company Order for the authentication and delivery of Securities, shall authenticate and deliver in exchange for this Security, Definitive Securities in an aggregate principal amount equal to the aggregate principal amount of this Security or the portion of this Security exchanged for Definitive Securities. Such Definitive Securities shall be registered in such names as the Depositary shall identify in writing as the beneficial owners of the Securities represented by this Security. Interests in this Global Security may not be exchanged for Definitive Securities other than as provided in this paragraph. Whenever this Security is exchanged in whole for one or more Definitive Securities, it shall be surrendered to the Trustee for cancellation.

Section 8. *Denominations*.

The Securities are in fully registered form, without coupons, in denominations of $[ ] of principal amount and any multiple thereof.

Section 9. *Unclaimed Money or Securities*.

Any money deposited with the Trustee or any Paying Agent for the payment of principal or interest not converted in accordance with Article Ten of the Indenture and remains unclaimed for two years after the Stated Maturity Date shall be paid to the Company upon Company Request, subject to any applicable unclaimed property law. After any such payments, Holders entitled to such money must look only to the Company for payment unless an applicable abandoned property law designates another person.

Section 10. *Amendment; Waiver*.

Subject to certain exceptions set forth in the Indenture, (i) the Indenture or the Securities may be amended with the written consent of the Holders of at least a majority in aggregate principal amount of the Securities at the time outstanding and (ii) certain Defaults may be waived with the written consent of the Holders of a majority in aggregate principal amount of the Securities at the time outstanding. Subject to certain exceptions set forth in the Indenture, without the consent of any Holder, the Company and the Trustee may amend the Indenture or the Securities (i) to evidence the succession of another Person to the Company and the assumption by any such successor of the covenants of the Company under the Indenture and contained in the Securities, (ii) to add additional covenants or to surrender rights and powers conferred on the Company, (iii) to add any additional evidences of default, (iv) to evidence and provide for the acceptance of appointment under the Indenture of a successor Trustee or (v) to cure any ambiguity in the Indenture, to correct or supplement any provision of the Indenture which may be inconsistent with any other provision therein, or to make other provisions with respect to matters or questions arising under the Indenture, provided that such actions shall not adversely affect the interests of the Holders in any material respect.

Section 11. *Defaults and Remedies*.

Except as set forth in the Indenture, if an Event of Default occurs and is continuing, the Trustee or the Holders of not less than 25% in principal amount of Securities then outstanding may declare all the Securities to be due and payable in the manner, at the time and with the effect provided in the Indenture. Certain events of bankruptcy or insolvency are Events of Default and shall result in the Securities being immediately due and payable upon the occurrence of such Events of Default without any further act of the Trustee or any Holder.

Holders of Securities may not enforce the Indenture or the Securities except as provided in the Indenture. The Trustee is not obligated to enforce the Indenture or the Securities unless it has received indemnity or security reasonably satisfactory to it. The Indenture permits, subject to certain limitations therein provided, Holders of a

majority in aggregate principal amount of the Securities then outstanding to direct the Trustee in its exercise of any trust or power. Subject to certain provisions set forth in the Indenture, Holders of a majority in an aggregate principal amount of the Securities at the time outstanding, by written notice to the Company and the Trustee, may rescind any declaration of acceleration due to an Event of Default, and the applicable Event of Default shall be deemed to have been cured for every purpose of the Indenture.

Section 12. *Individual Rights of Trustee and Other Agents*.

Subject to certain limitations imposed by the Trust Indenture Act, the Trustee or any Paying Agent, Conversion Agent, Security Registrar, Securities Custodian or Authenticating Agent, in its individual or other capacity, may become the owner or pledgee of Securities and may otherwise deal with the Company or its Affiliates with the same rights it would have if it were not Trustee, Paying Agent, Conversion Agent, Security Registrar, Securities Custodian or Authenticating Agent.

Section 13. *No Recourse Against Others*.

A director, officer, employee or shareholder, as such, of the Company shall not have any liability for any obligations of the Company under the Securities or the Indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. By accepting a Security, each Holder waives and releases all such liability. The waiver and release are part of the consideration for the issue of the Securities.

Section 14. *Authentication*.

This Security shall not be valid until an authorized signatory of the Trustee manually signs the Trustee s Certificate of Authentication on the other side of this Security.

Section 15. *Governing Law*.

THE LAWS OF THE STATE OF NEW YORK SHALL GOVERN THE INDENTURE AND THIS SECURITY.

Table of Contents

ASSIGNMENT FORM

To assign this Security, fill in the form below

I or we assign and transfer this Security to

(Insert assignee s soc. sec. or tax ID no.)

(Print or type assignee s name, address and zip code)

and irrevocably appoint as agent to transfer this Security on the books of the Company. The agent may substitute another to act for him.

Date: _____

Signature Guaranteed

Participant in a Recognized Signature Guarantee Medallion Program

By: _____
Authorized Signatory

CONVERSION NOTICE

To convert this Security into Common Stock of the Company, check the box ¨

To convert only part of this Security, state the principal amount to be converted:

If you want the stock certificate made out in another person s name fill in the form below:

(Insert the other person s soc. sec. tax ID no.)

(Print or type other person s name, address and zip code)

Your Signature: _____

(Sign exactly as your name appears on the other side of this Security)

Table of Contents

SCHEDULE I

MEDICINOVA, INC.

Floating Rate Secured Convertible Notes due 2011

Date	Principal Amount	Notation

Table of Contents

EXHIBIT B

FORM OF DEFINITIVE SECURITY

MEDICINOVA, INC.

Floating Rate Secured Convertible Notes due 2011

No.: CUSIP:

Issue Date: Principal Amount:

MEDICINOVA, INC., a Delaware corporation, promises to pay to or its, his or her registered assigns, the principal amount of $, on , 2011 [the 18 month anniversary of the Indenture], subject to the further provisions of this Security set forth on the reverse hereof, which further provisions shall for all purposes have the same effect as if set forth at this place. This Security is convertible as specified on the other side of this Security.

Unless the certificate of authentication hereon has been duly executed by the Trustee referred to on the reverse hereof by manual signature, this Security shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purposes.

IN WITNESS WHEREOF, MediciNova, Inc. has caused this Security to be fully executed.

Dated:

MEDICINOVA, INC.

By:
Name: Yuichi Iwaki, M.D., Ph.D.

Title: President and Chief Executive Officer

By:
Name: Shintaro Asako
Title: Chief Financial Officer and Secretary

TRUSTEE S CERTIFICATE OF AUTHENTICATION

This is one of the Securities referred to in the within-mentioned Indenture.

AMERICAN STOCK TRANSFER & TRUST

COMPANY, LLC, Trustee

By:
Authorized Officer

Table of Contents

{FORM OF REVERSE SIDE OF DEFINITIVE SECURITY}

MEDICINOVA, INC.

Floating Rate Secured Convertible Note due 2011

Section 1. Indenture.

This Security is one of a duly authorized issue of debt securities of MediciNova, Inc., a Delaware corporation (such corporation, and its successors and assigns under the Indenture (as defined below), being herein called the *Company*) designated as its Floating Rate Secured Convertible Notes due 2011 (herein called the *Securities*), issued under an indenture dated as of , 2009 (as amended or supplemented from time to time, the *Indenture*), by and between the Company and American Stock Transfer & Trust Company, LLC, as trustee (the *Trustee*, which term includes any successor Trustee under the Indenture). The terms of the Securities include those stated in the Indenture and those made part of the Indenture by reference to the Trust Indenture Act of 1939, as amended (the *Trust Indenture Act*), and the Indenture sets forth the respective rights, limitations of rights, duties and immunities thereunder of the Company, the Trustee and each Holder of Securities and of the terms upon which the Securities are, and are to be, authenticated and delivered. The summary of the terms of this Security contained herein does not purport to be complete and is qualified by reference to the Indenture, and Holders are referred to the Indenture and the Trust Indenture Act for a statement of the Securities terms. Capitalized terms used in this Security that are not defined herein shall have the same meanings assigned to them in the Indenture.

The Securities are general secured obligations of the Company limited to up to $38.5 million aggregate principal amount. The Indenture does not limit other indebtedness of the Company, secured or unsecured.

Section 2. *Principal and Interest*.

The Company promises to pay on , 2011 [the 18 month anniversary of the date of the Indenture] (the *Stated Maturity Date*) (i) the principal amount of $ to the registered Holder of this Security in the Security Register and (ii) all accrued interest on such principal amount as invested pursuant to the terms and conditions of the Trust Agreement dated as of , 2009, by and between the Company and the Trustee.

Section 3. *Method of Payment*.

The Company, through the Paying Agent, shall pay the principal amount and all accrued interest due on the Stated Maturity Date to the Person who is the registered Holder of this Security in the Security Register. The Company shall pay all payments of principal and interest in money of the United States that at the time of payment is legal tender for payment of public and private debts.

Section 4. *Paying Agent, Conversion Agent, Security Registrar, and Securities Custodian*.

Initially, the Trustee shall act as Paying Agent, Conversion Agent, Security Registrar and Securities Custodian. The Company may appoint and change any Paying Agent, Conversion Agent, Security Registrar or Securities Custodian without notice, other than notice to the Trustee.

Section 5. *Conversion*.

Subject to the provisions of Article Ten of the Indenture, a Holder of a Security may convert such Security prior to the close of business on the final Business Day of each calendar month (each such date, as such date may be delayed in accordance with Section 10.02(3) of the Indenture, a *Conversion Date*) into the number of shares of Common Stock equal to the principal amount of such Security multiplied by the Conversion Rate in effect at such time. Upon conversion, the Holder shall not receive any separate cash payment for accrued and unpaid interest, if any. No fractional shares shall be issued upon conversion; in lieu thereof, the Company shall deliver

cash for the current market value of any fractional share, which shall be determined to the nearest 1/1,000th of a share by multiplying the Closing Price of a full share of Common Stock on the Conversion Date by the fractional amount and rounding the product to the nearest whole cent.

To convert this Security, its Holder must (i) complete and manually sign the conversion notice on the back of the Security, or a facsimile of such conversion notice, (ii) deliver such conversion notice, which is irrevocable, and the Security to the Conversion Agent on or prior to the applicable Conversion Date, (iii) if required, furnish appropriate endorsements and transfer documents as may be required by the Conversion Agent and, if required pursuant to Section 10.01(4) of the Indenture, pay all transfer or similar taxes and (iv) if required pursuant to Section 3.11 of the Indenture, pay funds equal to the amount of applicable withholding taxes.

Section 6. *Persons Deemed Owners.*

The registered Holder of this Security in the Security Register may be treated as the owner of this Security for all purposes.

Section 7. *Transfer and Exchange.*

A Holder may transfer and exchange Securities in accordance with the Indenture. The Security Registrar may require a Holder, among other things, to furnish appropriate endorsements and transfer documents and to pay any taxes and fees required by law or permitted by the Indenture.

Section 8. *Denominations.*

The Securities are in fully registered form, without coupons, in denominations of $[ ] of principal amount and any multiple thereof.

Section 9. *Unclaimed Money or Securities.*

Any money deposited with the Trustee or any Paying Agent for the payment of principal or interest not converted in accordance with Article Ten of the Indenture and remains unclaimed for two years after the Stated Maturity Date shall be paid to the Company upon Company Request, subject to any applicable unclaimed property law. After any such payments, Holders entitled to such money must look only to the Company for payment unless an applicable abandoned property law designates another person.

Section 10. *Amendment; Waiver.*

Subject to certain exceptions set forth in the Indenture, (i) the Indenture or the Securities may be amended with the written consent of the Holders of at least a majority in aggregate principal amount of the Securities at the time outstanding and (ii) certain Defaults may be waived with the written consent of the Holders of a majority in aggregate principal amount of the Securities at the time outstanding. Subject to certain exceptions set forth in the Indenture, without the consent of any Holder, the Company and the Trustee may amend the Indenture or the Securities (i) to evidence the succession of another Person to the Company and the assumption by any such successor of the covenants of the Company under the Indenture and contained in the Securities, (ii) to add additional covenants or to surrender rights and powers conferred on the Company, (iii) to add any additional evidences of default, (iv) to evidence and provide for the acceptance of appointment under the Indenture of a successor Trustee or (v) to cure any ambiguity in the Indenture, to correct or supplement any provision of the Indenture which may be inconsistent with any other provision therein, or to make other provisions with respect to matters or questions arising under the Indenture, provided that such actions shall not adversely affect the interests of the Holders in any material respect.

Table of Contents

Section 11. *Defaults and Remedies*.

Except as set forth in the Indenture, if an Event of Default occurs and is continuing, the Trustee or the Holders of not less than 25% in principal amount of Securities then outstanding may declare all the Securities to be due and payable in the manner, at the time and with the effect provided in the Indenture. Certain events of bankruptcy or insolvency are Events of Default and shall result in the Securities being immediately due and payable upon the occurrence of such Events of Default without any further act of the Trustee or any Holder.

Holders of Securities may not enforce the Indenture or the Securities except as provided in the Indenture. The Trustee is not obligated to enforce the Indenture or the Securities unless it has received indemnity or security reasonably satisfactory to it. The Indenture permits, subject to certain limitations therein provided, Holders of a majority in aggregate principal amount of the Securities then outstanding to direct the Trustee in its exercise of any trust or power. Subject to certain provisions set forth in the Indenture, Holders of a majority in an aggregate principal amount of the Securities at the time outstanding, by written notice to the Company and the Trustee, may rescind any declaration of acceleration due to an Event of Default, and the applicable Event of Default shall be deemed to have been cured for every purpose of the Indenture.

Section 12. *Individual Rights of Trustee and Other Agents*.

Subject to certain limitations imposed by the Trust Indenture Act, the Trustee or any Paying Agent, Conversion Agent, Security Registrar, Securities Custodian or Authenticating Agent, in its individual or other capacity, may become the owner or pledgee of Securities and may otherwise deal with the Company or its Affiliates with the same rights it would have if it were not Trustee, Paying Agent, Conversion Agent, Security Registrar, Securities Custodian or Authenticating Agent.

Section 13. *No Recourse Against Others*.

A director, officer, employee or shareholder, as such, of the Company shall not have any liability for any obligations of the Company under the Securities or the Indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. By accepting a Security, each Holder waives and releases all such liability. The waiver and release are part of the consideration for the issue of the Securities.

Section 14. *Authentication*.

This Security shall not be valid until an authorized signatory of the Trustee s Certificate of Authentication on the other side of this Security.

Section 15. *Governing Law*.

THE LAWS OF THE STATE OF NEW YORK SHALL GOVERN THE INDENTURE AND THIS SECURITY.

Table of Contents

ASSIGNMENT FORM

To assign this Security, fill in the form below

I or we assign and transfer this Security to

(Insert assignee s soc. sec. or tax ID no.)

(Print or type assignee s name, address and zip code)

and irrevocably appoint as agent to transfer this Security on the books of the Company. The agent may substitute another to act for him.

Date: _____

Signature Guaranteed

Participant in a Recognized Signature Guarantee Medallion Program

By: _____
Authorized Signatory

CONVERSION NOTICE

To convert this Security into Common Stock of the Company, check the box ¨

To convert only part of this Security, state the principal amount to be converted:

If you want the stock certificate made out in another person s name fill in the form below:

(Insert the other person s soc. sec. tax ID no.)

(Print or type other person s name, address and zip code)

Your Signature: _____

(Sign exactly as your name appears on the other side of this Security)

Table of Contents

ANNEX D

TRUST AGREEMENT

This Trust Agreement (this *Agreement*) is made as of , 2009, by and among MediciNova, Inc., a Delaware corporation (the *Company*), American Stock Transfer & Trust Company, LLC, a New York limited liability trust company, as trust agent and securities intermediary (the *Trust Agent*), and American Stock Transfer & Trust Company, LLC, a New York limited liability trust company, acting in the capacity of property agent for the benefit of the Security Holders (as defined below) (the *Property Agent* and together with the Trust Agent, the *Agents*).

WHEREAS, the Company has entered into an Agreement and Plan of Merger, dated as of August , 2009 (the *Merger Agreement*), by and among the Company, Avigen, Inc., a Delaware corporation (*Avigen*), and Absolute Merger, Inc., a Delaware corporation and wholly-owned subsidiary of the Company;

WHEREAS, pursuant to the Merger Agreement, the Company and American Stock Transfer & Trust Company, LLC, a New York limited liability trust company, as trustee (the *Trustee*), have entered into that certain Indenture dated as of the date hereof (as amended, restated or otherwise modified from time to time, the *Indenture*), pursuant to which the Company has issued to certain holders of shares of Avigen s common stock, par value $0.001 per share, Floating Rate Secured Convertible Notes due 2011 (the *Securities*) for an aggregate principal amount of $, which amount the Company desires to deliver to the Trust Agent to be deposited and held in a trust account for the benefit of the Company and the holders of the Securities (the *Security Holders*) as hereinafter provided (this initial amount to be delivered to the Trust Agent will be referred to herein as the *Initial Deposit*; the Security Holders and the Company will be referred to together as the *Beneficiaries*);

WHEREAS, pursuant to the Merger Agreement, the Company may issue additional Securities to the Security Holders in recognition of the June 30, 2010 payment in an aggregate principal amount of up to $ (the *Subsequent Deposits*), subject to adjustment as set forth in the Merger Agreement, which amount the Company intends to deliver to the Trust Agent to be deposited and held in the trust account for the benefit of the Beneficiaries and which amount shall be added to the Property;

WHEREAS, as security for the full and final payment and performance of the Secured Obligations (as defined below), the Company will grant a security interest in or pledge the Property (as defined below), which Property is governed by the terms of this Agreement;

WHEREAS, the Company, the Trust Agent and the Property Agent have entered into that certain Control Agreement, dated as of the date hereof (as amended, restated or otherwise modified from time to time, the *Control Agreement*), pursuant to which the Trust Agent, upon a Notice of Exclusive Control (as defined in the Control Agreement), shall deliver control of the Property to the Property Agent; and

WHEREAS, the Company and the Trust Agent desire to enter into this Agreement to set forth the terms and conditions pursuant to which the Trust Agent shall hold the Property.

IT IS AGREED:

1. *Definitions*.

(a) All capitalized terms used herein without definition shall have the meanings given to such terms in the Indenture.

(b) As used herein, *UCC* means the Uniform Commercial Code as enacted and in effect in the State of New York. Terms defined in the UCC and not otherwise defined herein have the meanings specified in the UCC. The term *instrument*, as used herein, means instrument as defined in Article 9 of the UCC.

Table of Contents

(c) For purposes of this Agreement, an *Event of Default* shall have been deemed to have occurred upon notice of an event of default under the Indenture, delivered to the Property Agent, by (i) the Avigen Representative (as defined in the Merger Agreement) or (ii) any Security Holders representing at least 25%; *provided*, *however*, that (A) any Security Holders representing at least 25%, by written notice to the Agents, may rescind and annul such declaration and its consequences and such Event of Default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured for every purpose of this Trust Agreement, but no such waiver or rescission and annulment shall extend to or shall affect any subsequent Event of Default, or shall impair any right consequent thereon; and (B) in the event the Avigen Representative, any Security Holders representing at least 25% or any other Security Holders representing at least 25% disagree on whether an Event of Default has occurred and is continuing, the actions of the party representing the greater percentage of Security Holders shall control.

2. *The Initial Deposit and Subsequent Deposits*. The Company shall deliver to the Trust Agent (a) concurrently with the execution and delivery of this Agreement, the Initial Deposit and (b) at any time pursuant to the Merger Agreement and including the June 30, 2010 payment, the Subsequent Deposits, if applicable, to be held collectively in a segregated trust account (the *Trust Account*) established by the Trust Agent.

3. *The Security Interest*. In order to secure the payment and performance in full of all the Secured Obligations (as hereinafter defined), the Company hereby pledges and grants to the Property Agent a continuing security interest in, and collaterally assigns to the Property Agent its interest in, the following properties, assets and rights of the Company, wherever located, whether now owned or hereafter acquired or arising (all of the same being hereinafter called, collectively, the *Property*):

(a) The Trust Account itself, the Initial Deposit, the Subsequent Deposits, if any, all rights of the Company against the Trust Agent or any clearing broker for the Trust Agent in connection with the Trust Account, and all securities, stocks, bonds, mutual fund shares, United States Treasury instruments and other investment property and financial assets now or hereafter reflected as maintained in the Trust Account, together with any and all proceeds, replacements or substitutions therefore and including without limitation, the following types of assets maintained in the Trust Account:

(i) (1) All securities, certificated or uncertificated, including without limitation all stocks, bonds, U.S. Treasury bills or instruments, securities entitlements, certificates of deposit or other time deposits, and investment company or other mutual or money market fund shares, in each case now or hereafter owned by the Company or by third parties who have authorized the Company to pledge such securities for indebtedness outstanding to the Company and which now are or hereafter may be maintained in or credited to the Trust Account; and (2) any security entitlements and any and all assets or property from time to time credited to the Trust Account, including without limitation any cash deposits and any other assets of the types described in clause (1) above, evidenced or appearing on the books and records of the Trust Agent, including without limitation items in transit by mail or carrier or in the possession of any third party (including any Federal Reserve Bank) acting for safekeeping, as agent for collection or transmission, or otherwise;

(ii) All instruments, whether negotiable or non-negotiable, tangible or in electronic form, made payable to or endorsed to the Company or in which the Company has an interest, including without limitation, due bills, dividend payment claims, checks and other writings of every kind or description evidencing a right to the payment of money however established or created and which now are or hereafter may be maintained in or credited to the Trust Account;

(iii) All other property of any kind, tangible or intangible, of the Company maintained in or comprising the Trust Account at any time or from time to time, including without limitation all deposit accounts, securities accounts, cash, documents, letter of credit rights, advices of credit, warehouse or other receipts, insurance claims and proceeds, chattel paper (tangible or electronic), contract rights or rights to the payment of money;

Table of Contents

(b) All remedies and privileges pertaining to the Property, subject to the terms hereof; and

(c) All proceeds of every kind or nature, and in whatever form (including both cash and non-cash) received now or in the future upon the sale or other disposition of the Property, including without limitation insurance proceeds, all cash payments or other property received as dividends, interest, or other proceeds, distribution rights or accretions of any kind, and any and all cash or non-cash property received in exchange for or in respect of any of the above described Property pursuant to any sale, disposition, merger, reorganization, exchange, stock split, dividend, distribution or similar event or transaction.

The foregoing Property shall be treated as financial assets as defined in Article 8 of the UCC and shall include all investment property as defined in Article 9 of the UCC.

4. *Obligations.* The Company hereby agrees that the Property shall be security for the prompt and complete payment or performance in full when due, whether at stated maturity, by required prepayment, declaration, acceleration, demand or otherwise of any and all obligations and liabilities of every kind, direct or indirect, absolute or contingent, due or to become due, now existing or hereafter arising, under or in connection with the Securities, the Indenture or this Agreement (all of the foregoing, the *Secured Obligations*).

5. *Agreements and Covenants of Trust Agent*. The Trust Agent hereby agrees and covenants to:

(a) Hold the Property in trust for the Beneficiaries in accordance with the terms of this Agreement in the Trust Account established by the Trust Agent;

(b) Manage, supervise and administer the Trust Account subject to the terms and conditions set forth herein;

(c) In a timely manner, upon the instruction of the Company, to invest and reinvest the Property in United States government securities within the meaning of Section 2(a)(16) of the Investment Company Act of 1940 having a maturity of 180 days or less, and/or in any open ended investment company registered under the Investment Company Act of 1940, as amended (the *Investment Company Act*), that holds itself out as a money market fund selected by the Company meeting the conditions of paragraphs (c)(2), (c)(3) and (c)(4) of Rule 2a-7 promulgated under the Investment Company Act (collectively, *Approved Investment Options*), as determined by the Company. Such written instructions, if any, referred to in the foregoing sentence shall specify the type and identity of the Approved Investment Options to be purchased and/or sold and shall also include the name of the broker-dealer, if any, that the Company directs the Trust Agent to use in respect of such investment, any particular settlement procedures required, if any (which settlement procedures shall be consistent with industry standards and practices), and such other information as the Trust Agent may require. The Trust Agent shall not be liable for failure to invest or reinvest funds absent sufficient written direction. Unless the Trust Agent is otherwise directed in such written instructions, the Trust Agent may use a broker-dealer of its own selection, including a broker-dealer owned by or affiliated with the Trust Agent or any of its affiliates. The Trust Agent or any of its affiliates may receive compensation with respect to any investment directed hereunder. It is expressly agreed and understood by the parties hereto that the Trust Agent shall not in any way whatsoever be liable for losses on any investments, including, but not limited to, losses from market risks due to premature liquidation or resulting harm or other actions taken pursuant to this Trust Agreement;

(d) Collect and receive, when due, all principal and income arising from the Property, which shall become part of the Property;

(e) Notify the Company and the Avigen Representative of all communications received by it with respect to any Property requiring action by the Company;

(f) Supply any necessary information or documents as may be requested by the Company in connection with the Company s preparation of its returns;

Table of Contents

(g) Participate in any plan or proceeding for protecting or enforcing any right or interest arising from the Property if, as and when instructed by the Company to do so;

(h) Render to the Company on a monthly basis and the Avigen Representative on a quarterly basis, and to such other persons as either of them may instruct, written statements of the activities of and amounts in the Trust Account reflecting all receipts and disbursements of the Trust Account; and

(i) No later than the earlier of (i) , 2011 [the eighteenth month anniversary of the date of this Agreement] or (ii) an Event of Default, liquidate the Trust Account and distribute the Property in the Trust Account to the Trustee for distribution to the Security Holders, pursuant to the terms of the Indenture and under the direction of the Property Agent, as applicable;

provided, *however*, that if an Event of Default occurs and is continuing, the Company s rights and the Trust Agent obligations to the Company under paragraphs (c) and (g) herein shall cease and the Trust Agent shall no longer take direction from the Company and shall instead take direction from the Property Agent with respect to such paragraphs and to invest and reinvest the Property in such Approved Investment Options instructed in writing by the Property Agent.

6. *Distributions from Trust Account*.

Provided that the Company has given the Trust Agent or Property Agent, as applicable, two days prior notice, or if no such notice has been provided, as soon as reasonably possible, the Trust Agent or the Property Agent, as applicable, shall release to the Company on the date the Company issues shares of the Company s common stock, par value $0.001 per share, to the Security Holders who have elected to convert Securities into such shares as of the most recent Conversion Date (as defined in the Indenture), an amount based on the computations provided by the Company and the Trustee under the Indenture, such amount to equal the aggregate amount of the principal of the Securities (together with any interest thereon) converted by the Security Holders into shares of the Company s common stock, par value $0.001 per share, on the Conversion Date date pursuant to the Indenture.

7. *Property Agent s Rights and Duties as to the Property*.

(a) The Property Agent hereby agrees that it shall only deliver a Notice of Exclusive Control (as defined in the Control Agreement), or give to the Trust Agent any entitlement orders and other instructions as to the transfer, redemption, withdrawal, disposition or investment of any of the Property, after the occurrence and continuance of an Event of Default. Upon the occurrence and continuance of an Event of Default, the Property Agent shall provide all Security Holders with notice of the Event of Default, in accordance with Section 1.06 of the Indenture.

(b) After the occurrence and during the continuance of an Event of Default, the Property Agent may at any time: (i) collect and receive, and at its option apply to the Secured Obligations, any distribution in cash or otherwise payable with respect to the Property and may demand, sue for, receive and collect or make any compromise or settlement with reference to any Property; and (ii) have the Property transferred into its name or that of a nominee and receive the income thereon and notify the obligor(s) on any Property to make payments due, or to become due, directly to the Property Agent. For the purpose of perfecting the Property Agent s security interest in the Property, the Company will hold the Property in the Trust Account subject to the Control Agreement. In order to perfect its security interest in the Property after the occurrence and during the continuance of an Event of Default, the Property Agent may register the pledge of any such Property with its issuer by sending them a copy of this Agreement; notify a financial intermediary (including itself), a clearing corporation or third person of its security interest by sending them a copy of this Agreement; or transfer U.S. government securities recorded on its books in the name of the Company to the Property Agent s own account or that of a nominee. Beyond the exercise of reasonable care to assure the safe custody of Property, the Property Agent shall be under no duty or liability to collect the Property or the income thereon or to protect or preserve rights pertaining thereto, and shall be relieved of all responsibility for the Property upon surrendering it to the Beneficiaries, as applicable. The Property Agent shall be deemed to have exercised reasonable care in the

custody and preservation of any Property in its possession if the Property Agent accords such Property treatment substantially equal to that which the Property Agent accords to its own property.

(c) Notwithstanding anything herein to the contrary, the Company shall remain liable under each contract or agreement comprised in the Property to be observed or performed by the Company thereunder. The Property Agent shall not have any obligation or liability under any such contract or agreement by reason of or arising out of this Agreement or the receipt by the Property Agent of any payment relating to any of the Property, nor shall the Property Agent be obligated in any manner to perform any of the obligations of the Company under or pursuant to any such contract or agreement, to make inquiry as to the nature or sufficiency of any payment received by the Property Agent in respect of the Property or as to the sufficiency of any performance by any party under any such contract or agreement, to present or file any claim, to take any action to enforce any performance or to collect the payment of any amounts which may have been assigned to the Property Agent or to which the Property Agent may be entitled at any time or times.

(d) With respect to any Property consisting of securities, whether certificated or uncertificated, or other investment property now or hereafter held by the Company through the Trust Agent, the Company shall cause the Trust Agent, pursuant to an agreement in form and substance reasonably satisfactory to the Property Agent, to agree to comply with entitlement orders or other instructions from the Property Agent to the Trust Agent as to such securities or other investment property, without further consent of the Company, in accordance with and pursuant to the terms of the Control Agreement. In order to perfect its security interest in the Property, the Property Agent may transfer U.S. government securities recorded on its books in the name of the Company to the Property Agent s own account or that of a nominee.

(e) The parties hereto hereby agree that so long as no Event of Default has occurred, the Company, through the Trust Agent, shall be permitted to invest the Property pursuant to the terms set forth in this Agreement.

Notwithstanding anything to the contrary herein before contained, the Property Agent shall have the right to consult with Counsel (including Counsel to the Company) for advice and assistance in exercising its duties under this Agreement and the advice and/ or assistance given by Counsel shall be complete authorization and protection in respect of any action taken, suffered or omitted by the Property Agent hereunder in reliance thereon. The Company shall be liable for and shall pay on demand, any reasonable fees and expenses of the Counsel consulted by the Property Agent.

8. *Representations, Warranties, Agreements and Covenants of the Company*.

(a) To the Company s knowledge, it is the legal and equitable owner of the Property and holds the Property free and clear of all liens, charges, encumbrances and security interests of every kind and nature whatsoever except for the security interest granted hereunder to the Property Agent. To the Company s knowledge, it has good right and legal authority to assign, deliver and/or create a security interest in the Property and shall defend its title to the Property against all claims of all other persons or entities. The Company (i) shall be solely responsible for the payment of, and shall promptly pay and discharge, or shall cause to be paid and discharged, all taxes, assessments and other governmental charges or levies, liens, premiums and other charges imposed upon the Property or upon the income from the Property, (ii) shall file in a timely manner all tax returns and reports required to be filed in connection therewith and (iii) shall indemnify and hold the Agents harmless from and against all such taxes, assessments and other governmental charges or levies (including interest and penalties) and all costs and expenses incurred by the Agents in connection therewith. Other than with respect to Property underlying Securities owned by the Company, the Company further agrees not to assign this Agreement, not to assign, lease or grant any option or similar right with respect to, any of the Property or any part thereof, and not to create, incur, assume or suffer to exist any mortgage, pledge, security interest, lien or other charge or encumbrance upon, any of the Property, or enter into any agreement preventing it from encumbering any the Property, other than pledges and security interests in favor of the Property Agent.

(b) The Company agrees to deliver to the Trust Agent and, after an occurrence and during the continuance of an Event of Default, place under the Property Agent s control any and all stock dividends, warrants, options,

rights, substituted shares or other securities distributed on account of the Property or received on account of the exercise by the Company of any option, warrant or right appertaining to any security constituting part of the Property. In case such a distribution of stock dividends, warrants, options, rights, substituted shares or other securities is made directly to either one or both of the Agents, the Company will execute such assignments and other documents as the Agents may require in order to adequately make such distribution part of the Property hereunder.

(c) The Company covenants and agrees to execute and deliver such additional instruments and take such further action as the Property Agent may reasonably request solely to effect the purpose of this Agreement, including without limitation, causing the Trust Agent or the relevant issuer of any securities to be included as Property from time to time and/or other required parties (including transfer agents and securities intermediaries) to execute and deliver to the Property Agent such control agreements, letters of direction or other documents or agreements as the Property Agent may reasonably require in order to perfect (including by control) its security interest in the Property.

(d) Except as the Property Agent may otherwise permit in its discretion and with respect to which there are in effect appropriate control agreements or other documents as the Property Agent may from time to time require, all Property will be maintained with the Property Agent or the Trust Agent, subject to this Agreement and the Control Agreement as applicable.

(e) The Company covenants and agrees to give all instructions to the Trust Agent hereunder in writing, signed by the Company s Chief Executive Officer, Chief Financial Officer or Controller. Upon receipt of written instructions, the Trust Agent will confirm such instructions with an authorized individual at an authorized telephone number listed on the attached *Exhibit A*. In executing funds transfers, the Trust Agent will rely upon account numbers or other identifying numbers of a beneficiary, beneficiary s bank or intermediary bank, rather than names. The Trust Agent shall not be liable for any loss, liability or expense resulting from any error in an account number or other identifying number; *provided* that the Trust Agent has accurately transmitted the numbers provided. In addition, except with respect to its duties under paragraphs 5(i) and 6 above, the Trust Agent shall be entitled to rely on, and shall be protected in relying on, any verbal or telephonic advice or instruction which it in good faith believes to be given by any one of the persons authorized above to give written instructions; *provided* that the Company shall promptly confirm such instructions in writing;

(f) The Company covenants and agrees to hold the Agents harmless and indemnify the Agents from and against, any and all reasonable, documented and out-of-pocket expenses, including reasonable counsel fees and disbursements, or loss suffered by the Agents in connection with any action, suit or other proceeding brought against the Agents involving any claim, or in connection with any claim or demand which in any way arises out of or relates to this Agreement, the services of the Agents hereunder or the Property or any income earned from investment of the Property, except for expenses and losses resulting from either or both of the Agents gross negligence, bad faith or willful misconduct. Promptly after the receipt by either or both of the Agents of notice of demand or claim or the commencement of any action, suit or proceeding, pursuant to which the Agents, as applicable, intend to seek indemnification under this paragraph, either or both of the Agents shall notify the Company in writing of such claim (hereinafter referred to as the *Indemnified Claim*). The Agents, as applicable, shall have the right to conduct and manage the defense against such Indemnified Claim; *provided* that the Agents, as applicable, shall obtain the consent of the Company with respect to the selection of a single counsel, which consent shall not be unreasonably withheld. The Agents may not agree to settle any Indemnified Claim without the prior written consent of the Company, which consent shall not be unreasonably withheld. The Company may participate in such action with its own counsel; and

(g) The Company covenants and agrees to pay (1) the Trust Agent an initial acceptance fee of $[ ] and an annual fee of $[ ] and (2) the Property Agent an initial acceptance fee of $[ ] and an annual fee of $[ ] (it being expressly understood that the Property shall not be used to pay such fees).

9. *Attorney-in-Fact*. Subject to Section 5(c), the Trust Agent, its successors and assigns and any duly authorized officer thereof are hereby irrevocably appointed by the Company as the Company s attorney-in-fact, with full

Table of Contents

authority in the place and stead of the Company and in the name of the Company or otherwise, from time to time in the Trust Agent s reasonable discretion at any time to take any and all action and to execute any instrument or other assurance which the Trust Agent may deem reasonably necessary or advisable to accomplish the purposes of this Agreement, including: (a) to ask, demand, collect, sue for, recover, compromise, receive and give acquaintance and receipts for moneys due and to become due under or in respect of any of the Property; (b) to receive, endorse and collect any drafts or other instruments in connection with clause (a); (c) to execute and do all such assurances, acts and things which the Company is required to do under the covenants and provisions of this Agreement; and (d) to take any and all actions as the Trust Agent may reasonably determine to be necessary or advisable for the purpose of establishing, maintaining, preserving or protecting the security interest constituted by this Agreement or any of the rights, remedies, powers or privileges of the Trust Agent under this Agreement. To the extent permitted by law, the Company hereby ratifies all that such attorney shall lawfully do or cause to be done by virtue hereof. This power of attorney is a power coupled with an interest and shall be irrevocable. Without limiting the foregoing, the Trust Agent is hereby authorized to file in any filing office in any UCC jurisdiction any initial financing statements and amendments thereto that (a) indicate the Property as assets of the Company subject to the Trust Agent s lien and security interest, regardless of whether any particular asset comprising the Property falls within the scope of Article 9 of the UCC of the jurisdiction in which the financing statement is filed, with such Property description used by the Trust Agent to have the most encompassing definition applicable under Article 9 of the UCC of the applicable jurisdiction and consistent with the intent of this Agreement, and (b) provide any other information required by part 5 of Article 9 of the UCC of any jurisdiction for the sufficiency or filing office acceptance of any financing statement or amendment, including whether the Company is an organization or individual, the type of organization and any organizational identification number issued to the Company. The Company agrees to furnish any such information to the Trust Agent promptly upon the Trust Agent s request. The Company also ratifies its authorization for the Trust Agent to have filed in any UCC jurisdiction any like initial financing statements or amendments thereto if filed prior to the date hereof.

10. *Rights with Respect to Property After an Event of Default*. Upon the occurrence and during the continuation of an Event of Default, all rights of the Company to exercise any voting and other consensual rights which it would otherwise be entitled to exercise with respect to the Property shall cease, and all such voting and other consensual rights shall thereupon become vested during the continuation of an Event of Default in the Property Agent who shall thereafter have the sole right to exercise such voting and other consensual rights without notice to the Company.

11. *Records of Property*. The Company hereby authorizes the Property Agent to keep the official record of all instruments, securities, accounts or other property which may, as a result of reinvestment, substitution, or sale upon or prior to maturity or otherwise, from time to time constitute Property. Such records shall be presumed to be true and correct absent manifest error. The Company authorizes the Property Agent to access all books and records relating to the Trust Account on a daily basis, upon prior notice to the Company, during normal business hours.

12. *Rights and Remedies of the Property Agent*. Upon the occurrence of and during the continuance of an Event of Default, or at any time thereafter, without further notice or demand, the Property Agent shall have all the rights and remedies of a secured party afforded by the UCC as then in effect in the State of New York or afforded by other applicable law and shall have the right to set off against the Trust Account regardless of the adequacy of any other Property, and to sell, resell, assign and deliver or otherwise dispose of any or all of the Property at a private or public sale for cash or credit or both upon such terms at such place or places, at such time or times and to such entities or other persons as the Property Agent thinks expedient all without demand for performance by the Company or any notice or advertisement whatsoever except as expressly provided herein or as may otherwise be required by law. Where reasonable notification of the time and place of such sale or other disposition is required by law, such requirement shall be met if the Property Agent gives to the Company and the Avigen Representative not less than five days notice in writing mailed, postage prepaid, to the last addresses of the Company and the Avigen Representative known to it, of the time and place of any public sale of the Property or

Table of Contents

after which any private sale or intended disposition is to be made, provided, however, that the Property Agent may dispose of the Property without notice if the Property threatens to decline speedily in clause or is of a type customarily sold on a recognized market. The Property Agent may cause all or any part of the Property held by it to be transferred into its name or the name of its nominee or nominees and, for such purpose, without limitation upon any other rights or remedies available to the Property Agent, may give instruction for such effect to any issuer of any of the Property or any broker or other financial intermediary or book-entry custodian in possession of any of the Property or upon whose books any of the Property is then registered. The Property Agent may purchase the Property at a public sale and if the Property is of a type customarily sold in a recognized market or the subject of widely distributed standard price quotations, the Property Agent may purchase the Property at a private sale. The Company acknowledges that some or all of the Property which is not traded on a nationally recognized exchange may be sold at a private sale at prices less favorable than those which could be obtained at a public sale and the Property Agent shall not be required to wait for completion of any registration of any investment property in order to comply with state securities laws prior to liquidating any Property. All commissions and charges relating to sale of any Property shall constitute Secured Obligations secured by the Property and shall be payable by the Company upon demand. After deducting all costs and expenses of collection, storage, custody, sale or other disposition and delivery and all other charges against the Property, the residue of the proceeds of any such sale or other disposition shall be applied to the payment of the Secured Obligations in order of preference as the Property Agent may determine.

13. *Limitations of Liability*.

(a) The Trust Agent shall have no responsibility or liability to:

(i) Take any action with respect to the Property, other than as directed in paragraphs 2, 5 and 6 hereof;

(ii) Institute any proceeding for the collection of any principal and income arising from, or institute, appear in or defend any proceeding of any kind with respect to, any of the Property unless and until it shall have received instructions from the Company given as provided herein to do so and the Company shall have advanced or guaranteed to it funds sufficient to pay any expenses incident thereto;

(iii) Change the investment of any Property, other than in compliance with paragraph 5(c); and

(iv) Assume that the authority of any person designated by the Company to give instructions hereunder shall not be continuing unless provided otherwise in such designation, or unless the Company shall have delivered a written revocation of such authority to the Trust Agent.

(b) The Agents shall have no responsibility or liability to:

(i) Refund any depreciation in principal of any Property;

(ii) The other parties hereto or to anyone else for any action taken or omitted by it, or any action suffered by it to be taken or omitted, in good faith and in the exercise of its own best judgment, except for its gross negligence, bad faith or willful misconduct. The Agents may rely conclusively and shall be protected in acting upon any order, notice, demand, certificate, opinion or advice of counsel (including counsel chosen by the Agents), statement, instrument, report or other paper or document (not only as to its due execution and the validity and effectiveness of its provisions, but also as to the truth and acceptability of any information therein contained) that is believed by the Agents, in good faith, to be genuine and to be signed or presented by the proper person or persons. The Agents shall not be bound by any notice or demand, or any waiver, modification, termination or rescission of this Agreement or any of the terms hereof, unless evidenced by a written instrument delivered to the Agents signed by the proper party or parties and, if the duties or rights of the Agents are affected, unless it shall give its prior written consent thereto; and

(iii) File information returns with the United States Internal Revenue Service and payee statements with the Company, documenting the taxes payable by the Company, if any, relating to interest earned on the Property.

Table of Contents

14. *Termination*. This Agreement shall terminate as follows:

(a) If either one or both of the Agents give written notice to the Company that either one or both desires to resign under this Agreement, the Company shall use its reasonable efforts to locate successors, as applicable. At such time that the Company notifies the Agents that a successor has been appointed by the Company and has agreed to become subject to the terms of this Agreement, the Agents, as applicable, shall transfer the rights and obligations under this Agreement to the successor, including the transfer of copies of any reports and statements relating to the Trust Account, whereupon this Agreement shall terminate; *provided*, *however*, that, in the event that the Company does not locate a successor within 90 days of receipt of the resignation notice from either one or both of the Agents, the Agents, as applicable, may submit an application to have the Property deposited with any federal or state court in the State of Delaware and upon such deposit, the Agents, as applicable, shall be immune from any liability whatsoever that arises due to any actions or omissions to act by any party after such deposit; or

(b) At such time that the Secured Obligations have been paid in full, this Agreement shall terminate except with respect to Paragraph 8(f). The Property Agent shall, at the Company s request and expense promptly file a UCC-3 termination statement (if applicable), and execute and deliver to the Company or its designees such other documents acknowledging the termination of this Agreement as shall be reasonably requested by the Company.

15. *Miscellaneous*.

(a) This Agreement shall be governed by and construed and enforced in accordance with the laws of the State of New York. It may be executed in counterparts, each of which when executed shall be deemed to be an original but all of which taken together shall constitute one and the same instrument.

(b) This Agreement contains the entire agreement and understanding of the parties hereto with respect to the subject matter hereof. This Agreement or any provision hereof may only be changed, amended or modified by a writing signed by each of the parties hereto. As to any claim, cross-claim or counterclaim in any way relating to this Agreement, each party waives the right to trial by jury.

(c) The parties hereto consent to the jurisdiction and venue of any state or federal court located in the State of New York, for purposes of resolving any disputes hereunder.

(d) All notices and other communications required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been duly given (a) on the date of delivery, if delivered personally or by facsimile, upon confirmation of receipt, (b) on the first Business Day following the date of dispatch if delivered by a recognized next-day courier services or (c) on the third Business Day following the date of mailing if delivered by registered or certified mail, return receipt requested, postage prepaid, to the parties to this Agreement at the following address or to such other address either party to this Agreement shall specify by notice to the other party:

(i) if to the Trust Agent, addressed to it at American Stock Transfer & Trust Company, LLC, Administrative Support, 6201 15th Avenue, Brooklyn, NY 11219, Attn: Herbert Lemmer, facsimile at (718) 236-2641, or at any other address furnished in writing to the Company, the Property Agent and the Avigen Representative by the Trust Agent from time to time;

(ii) if to the Property Agent, addressed to it at American Stock Transfer & Trust Company, LLC, Administrative Support, 6201 15th Avenue, Brooklyn, NY 11219, Attn: Herbert Lemmer, facsimile at (718) 236-2641, or at any other address furnished in writing to the Company, the Trust Agent and the Avigen Representative by the Property Agent from time to time; or

(iii) if to the Company, addressed to it at MediciNova, Inc., 4350 La Jolla Village Drive, Suite 950, San Diego, CA 92122, Attn: Shintaro Asako, Chief Financial Officer, facsimile at (858) 373-7000, or at any other address furnished in writing to the Trust Agent, the Property Agent and the Avigen Representative by the Company from time to time.

Table of Contents

(iv) if to the Avigen Representative, addressed to it at Avigen Representative, 1301 Harbor Bay Parkway, Alameda, CA 94502, Attn: Andy A. Sauter facsimile at (510) 748-7285, or at any other address furnished in writing to the Company, the Trust Agent and the Property Agent by the Avigen Representative from time to time;

(e) This Agreement may not be assigned by the Trust Agent or Property Agent without the prior consent of the Company.

(f) No delay or omission on the part of the Property Agent in exercising any right or remedy shall operate as a waiver thereof of any other right or remedy. Waiver on any one occasion shall not be construed as a bar to or waiver of any right or remedy on any future occasion. All of the Property Agent s rights and remedies, whether evidenced hereby or by any other agreement, instrument or paper, shall be cumulative and may be exercised singularly or concurrently, and nothing herein shall be deemed to limit in any way any rights the Property Agent might otherwise have under any other instrument or by law, including, without limiting the generality thereof, the right to negotiate any note or other instrument together with any Property specifically described therein.

(g) Each of the Trust Agent, Property Agent and the Company hereby represents that it has the full right and power and has been duly authorized to enter into this Agreement and to perform its respective obligations as contemplated hereunder. The Trust Agent and Property Agent acknowledge and agree that each shall not make any claims or proceed against the Trust Account, including by way of set-off, and shall not be entitled to any funds in the Trust Account under any circumstance.

(h) Nothing in this Agreement, express or implied, shall give to any person (other than the parties hereto, the Security Holders, the Avigen Representative and their permitted successors and assigns hereunder) any benefit or any legal or equitable right, remedy or claim under this Agreement or under any covenant or provision herein contained, all such covenants and provisions being for the sole benefit of the parties hereto, the Security Holders, the Avigen Representative and their permitted successors and assigns.

* * * * *

Table of Contents

IN WITNESS WHEREOF, the parties have duly executed this Trust Agreement as of the date first written above.

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC, Trust Agent

By:
Name:

Title:

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC, Property Agent

By:
Name:

Title:

MEDICINOVA, INC.

By:
Name: Shintaro Asako

Title: Vice President and Chief Financial Officer

Table of Contents

EXHIBIT A

AUTHORIZED INDIVIDUAL(S) FOR TELEPHONE CALL BACK	AUTHORIZED TELEPHONE NUMBER(S)

Table of Contents

ANNEX E

ESCROW AGREEMENT

This Escrow Agreement is made and entered into as of , 2009 (this *Agreement*) by and between MediciNova, Inc., a Delaware corporation (*Parent*), (the *Avigen Representative*), and American Stock Transfer & Trust Company, LLC, a New York limited liability trust company (the *Escrow Agent*).

RECITALS

WHEREAS, Parent, Absolute Merger, Inc., a Delaware corporation and wholly-owned subsidiary of Parent (*Merger Sub*), and Avigen, Inc., a Delaware corporation (the *Company*) have entered into an Agreement and Plan of Merger dated as of August , 2009 (the *Merger Agreement*), pursuant to which Merger Sub will merge with and into the Company (the *Merger*), with the Company surviving the Merger as a subsidiary of Parent; and

WHEREAS, pursuant to the Merger Agreement, the parties thereto have agreed that Parent, Avigen Representative and the Escrow Agent shall enter into this Agreement prior to the Merger Effective Time (as defined in the Merger Agreement) for the Escrow Agent to hold certain sums in an escrow account (the *Escrow Account*) for disbursement in accordance with the terms of the Merger Agreement and this Agreement;

NOW, THEREFORE, in consideration of the covenants, promises and representations set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

1. *Definitions*.

(a) For all purposes of this Agreement, except as otherwise expressly provided or unless the context otherwise requires:

(i) the terms defined in this *Section 1* have the meanings assigned to them in this *Section 1*;

(ii) the words herein, hereof and hereunder and other words of similar import refer to this Agreement as a whole and not to any particular Section or other subdivision;

(iii) unless the context otherwise requires, words describing the singular number shall include the plural and vice versa, words denoting any gender shall include all genders; and

(iv) all references to including shall be deemed to mean including without limitation.

(b) Capitalized terms used but not otherwise defined herein shall have the meanings ascribed thereto in the Merger Agreement. The following terms shall have the meanings ascribed to them as follows:

Agreement has the meaning set forth in the Preamble.

Company has the meaning set forth in the Preamble.

Escrow Account has the meaning set forth in the Recitals.

Escrow Amount means the sums held in the Escrow Account, which consist of $1,500,000, plus the amount by which the cash liquidation proceeds of the Company s marketable securities and restricted

investments held as of June 30, 2009 that are available as of the date hereof exceed $28,021,000, the Additional Assets and any and all interest accruing thereon between the Merger Effective Time and June 30, 2010 invested pursuant to the terms of this Agreement.

Escrow Agent has the meaning set forth in the Preamble.

Identifying Information has the meaning set forth in *Section 20*.

Indemnified Claim has the meaning set forth in *Section 7(i)*.

Investment Company Act means the Investment Company Act of 1940, as amended.

Merger has the meaning set forth in the Recitals.

Merger Agreement has the meaning set forth in the Recitals.

Merger Sub has the meaning set forth in the Recitals.

Parent has the meaning set forth in the Preamble.

USA PATRIOT Act has the meaning set forth in *Section 20*.

2. *Appointment of Escrow Agent*.

Parent and the Company hereby appoint the Escrow Agent as escrow agent, to act in accordance with the terms and conditions set forth in this Agreement, and the Escrow Agent hereby accepts such appointment and agrees to act in accordance with such terms and conditions.

3. *Delivery of the Escrow Amount*.

(a) As of the date hereof, the Company shall deposit with the Escrow Agent $1,500,000 dollars into the Escrow Account plus the amount by which the cash liquidation proceeds of the Company s marketable securities and restricted investments held as of June 30, 2009 that are available as of the date hereof exceed $28,021,000.

(b) Parent shall deposit with the Escrow Agent all Additional Assets received in cash into the Escrow Account as promptly as practicable following receipt in cash.

(c) The Escrow Agent, upon receipt of any portion of the Escrow Amount pursuant to this *Section 3*, shall acknowledge receipt thereof and shall act with respect thereto and otherwise as hereinafter set forth and shall hold such amounts in accordance with this Agreement.

4. *Investment of the Escrow Amount*.

The Escrow Agent shall:

(a) in a timely manner, upon the instruction of Parent, to invest and reinvest the Escrow Amount in United States government securities within the meaning of Section 2(a)(16) of the Investment Company Act having a maturity of 180 days or less, and/or in any open ended investment company registered under the Investment Company Act that holds itself out as a money market fund selected by Parent meeting the conditions of paragraphs (c)(2), (c)(3) and (c)(4) of Rule 2a-7 promulgated under the Investment Company Act, as determined by Parent; and

Table of Contents

(b) have the right to liquidate any investments held as part of the Escrow Amount in order to provide funds necessary to make required payments under this Agreement. The parties understand that the Escrow Agent intends to liquidate the investments as necessary to make any required payments under this Agreement and that any such liquidated investment shall not earn interest between such date and the date the required payment is made under this Agreement. The Escrow Agent in its capacity as escrow agent hereunder shall not have any liability for any loss sustained as a result of any investment made herein unless such loss arises from the Escrow Agent s gross negligence, bad faith or willful misconduct.

5. *Demands for Payment and Release of the Escrow Amount from the Escrow Account*.

(a) At any time on or prior to June 30, 2010, Parent may deliver to the Escrow Agent the Demand Certificate, substantially in the form of *Exhibit A*, demanding that the Escrow Agent release to Parent all or a portion of the Second Payment Consideration in the Escrow Account in satisfaction of the amount that Parent states is so owed in satisfaction of any Additional Liabilities. The Demand Certificate shall specify the Demand Amount, shall describe in reasonable detail the basis for the demand, shall include payment instructions, and shall certify that Parent has contemporaneously delivered a copy of the Demand Certificate to Avigen Representative at the address set forth in *Section 10*. In no event shall the Escrow Agent be required to determine whether the detail thus provided in the Demand Certificate is in fact reasonable. For the avoidance of doubt, only one Demand Certificate may be delivered by Parent to the Escrow Agent. In the event no Demand Certificate is delivered to the Escrow Agent on or prior to June 30, 2010, Parent shall deliver notice to the Escrow Agent that no Demand Certificate has been submitted and request immediate release of the Second Payment Consideration.

(b) Upon receipt of the Demand Certificate, Avigen Representative may request, and Parent shall promptly (and in any event within five (5) Business Days) provide, such further information and documentation available to Parent and reasonably required to verify and evaluate the Demand Amount specified in such Demand Certificate. Unless the Escrow Agent receives an Avigen Representative Objection to a Demand Certificate within thirty (30) days after the date of receipt by the Escrow Agent and Avigen Representative of such Demand Certificate from Parent, the Escrow Agent shall release to Parent, in satisfaction of the Demand Amount stated in such Demand Certificate, all or a portion of the Second Payment Consideration in the Escrow Account equal to the full Demand Amount. An Avigen Representative Objection, if any, shall specify in reasonable detail Avigen Representative s basis for objection and shall certify that Avigen Representative has contemporaneously delivered a copy of the Avigen Representative Objection to Parent at the address set forth in *Section 10*. In no event shall the Escrow Agent be required to determine whether the detail thus provided in the Avigen Representative Objection is in fact reasonable. In the event no Demand Certificate is delivered to the Escrow Agent on or prior to June 30, 2010, Parent shall deliver notice to the Escrow Agent that no Demand Certificate has been submitted and request immediate release of the Second Payment Consideration.

(c) In any Avigen Representative Objection to a Demand Certificate, Avigen Representative may state an objection to all or a portion of the Demand Amount sought in such Demand Certificate. If Avigen Representative objects to only a portion of such amount, such Avigen Representative Objection shall instruct the Escrow Agent to release, and the Escrow Agent shall release to Parent, in satisfaction of the unobjected-to portion of the Demand Amount, a portion of the Second Payment Consideration in the Escrow Account equal to such unobjected-to portion.

(d) If within 15 days after delivery of Avigen Representative Objection, Parent and Avigen Representative shall be unable to resolve the dispute set forth in the Avigen Representative Objection, the Parent and Avigen Representative shall jointly retain the Independent Accountants, as long as the Independent Accountants have not provided, accounting, audit, consulting or any other services to either Parent or Avigen Representative or any of their respective affiliates or to any director or officer of either Parent or Avigen Representative or any of their respective affiliates thereof within the last two years, and if such accounting firm fails to satisfy the foregoing independence requirement then Parent and Avigen Representative agree the Independent Accountants will select an alternative nationally recognized firm of certified public accountants in the United States that has not done so

as the replacement Independent Accountants. The Independent Accountants may request of Parent or Avigen Representative such documents and information as may be necessary or appropriate for proper determination of the amount to be deducted from the Second Payment Consideration, and Parent and Avigen Representative shall cooperate to promptly satisfy any such request. The Independent Accountants shall review such information, and shall, as promptly as practicable, and in no event later than 30 days following the date of their engagement, select either (i) the Demand Amount or (ii) the Demand Amount, as adjusted by the amounts contested in the Avigen Representative Objection, as the one alternative that most closely reflects the numerical amount that the Independent Accountants believes is accurate (the *Selected Amount*). For the avoidance of doubt, the Independent Accountants may not make their own independent determination of the amount to be deducted from the Second Payment Consideration. The fees and expenses of the Independent Accountants shall be deducted from the Second Payment Consideration in the event that the Demand Amount is chosen as the Selected Amount and shall be paid by Parent if the Demand Amount is not chosen as the Selected Amount. The Escrow Agent shall release to Parent, in full satisfaction of the obligations related to the Demand Amount, the amount which reflects any adjustments resulting from the Selected Amount.

(e) As promptly as practicable following receipt of the Demand Certificate or June 30, 2010 if no Demand Certificate is delivered, the Escrow Agent shall release the Second Payment Consideration less the Demand Amount, if any, as follows: with respect to shares of Company Common Stock for which the Cash Consideration was elected (including 50% of all Non-Election Shares in accordance with Section 1.6(a)(iii) of the Merger Agreement), the Escrow Agent shall pay to each Holder his pro rata portion of such amount in cash as promptly as practicable and with respect to shares of Company Common Stock for which the Convertible Notes Consideration was elected (including 50% of all Non-Election Shares in accordance with Section 1.6(a)(iii) of the Merger Agreement), the Escrow Agent shall pay to the trustee under the Trust Agreement the aggregate portion of such amount attributable to such shares of Company Common Stock as promptly as practicable; *provided*, that if the conversion feature set forth in Article Ten of the Indenture has been eliminated pursuant to Section 10.03(7) such payment shall be made to each Holder in cash.

(f) As promptly as practicable following the determination of the Selected Amount by the Independent Accountants, the Escrow Agent shall release any difference (to the extent such difference is positive) between the Demand Amount and the Selected Amount as follows: with respect to shares of Company Common Stock for which the Cash Consideration was elected (including 50% of all Non-Election Shares in accordance with Section 1.6(a)(iii) of the Merger Agreement), the Escrow Agent shall pay to each Holder his pro rata portion of such amount in cash as promptly as practicable and with respect to shares of Company Common Stock for which the Convertible Notes Consideration was elected (including 50% of all Non-Election Shares in accordance with Section 1.6(a)(iii) of the Merger Agreement), the Escrow Agent shall pay to the trustee under the Trust Agreement the aggregate portion of such amount attributable to such shares of Company Common Stock as promptly as practicable; *provided*, that if the conversion feature set forth in Article Ten of the Indenture has been eliminated pursuant to Section 10.03(7) such payment shall be made to each Holder in cash.

6. *Termination of the Agreement*.

As of the date that the Escrow Agent has distributed the full Escrow Amount, this Agreement shall terminate as to the Escrow Agent, except that the provisions of *Sections 7(h)*, *8(b)*, *8(c)* and *8(e)* shall survive such termination or the resignation of the Escrow Agent.

7. *Rights of the Escrow Agent*.

(a) The Escrow Agent shall have no duties or responsibilities under this Agreement except those expressly set forth herein. The Escrow Agent shall have no liability under and no duty to inquire as to the provisions of any other agreement than this Agreement other than definitions incorporated herein by reference.

Table of Contents

(b) No Person shall be recognized by the Escrow Agent as a successor or assignee of Parent or Avigen Representative until there shall be presented to the Escrow Agent evidence satisfactory to it of such succession or assignment.

(c) The Escrow Agent may rely upon any instrument in writing believed in good faith by it to be genuine and sufficient and properly presented and shall not be liable or responsible for any action taken or omitted in accordance with the provisions thereof.

(d) The Escrow Agent shall not be liable or responsible for any act it may do or omit to do except for expenses and losses resulting from the Escrow Agent s gross negligence, bad faith or willful misconduct. Anything in this Agreement to the contrary notwithstanding, in no event shall the Escrow Agent be liable for any special, indirect, punitive, incidental or consequential loss or damage of any kind whatsoever (including lost profits), even if the Escrow Agent has been advised of the likelihood of such loss or damage and regardless of the form of action. The Escrow Agent may execute any of its powers and perform its duties hereunder directly or through agents or attorneys and may consult with counsel, accountants, and other skilled persons to be selected and retained by it.

(e) The Escrow Agent (and any successor Escrow Agent) may at any time resign as such by giving written notice to Parent and delivering the Escrow Amount and all records and documentation relating to the Escrow Account to any successor Escrow Agent designated by Parent in writing, or to any court of competent jurisdiction, whereupon the Escrow Agent shall be discharged of and from any and all further obligations arising in connection with this Agreement. The resignation of the Escrow Agent shall take effect on the earlier of (i) the appointment of a successor (including by a court of competent jurisdiction) or (ii) the day which is thirty (30) days after the date of delivery of its written notice of resignation to the other parties hereto. If at that time the Escrow Agent has not received a designation of a successor Escrow Agent, the Escrow Agent s sole responsibility after that time shall be to safekeep the Escrow Amount until receipt of a designation of successor Escrow Agent pursuant to a written designation of a successor Escrow Agent or a final court order or decree.

(f) In the event that the Escrow Agent shall be uncertain as to its duties or rights hereunder or shall receive instructions, claims or demands by any party hereto which, in its opinion, conflict with any of the provisions of this Agreement, it shall be entitled to refrain from taking any action and its sole obligation shall be to keep safely all property held in escrow until it shall be directed otherwise in writing by all of the other parties hereto or by a final order or judgment of a court of competent jurisdiction. The Escrow Agent may interplead all of the assets held hereunder into a court of competent jurisdiction with respect to such circumstances as are reasonably determined by the Escrow Agent, and thereafter be fully relieved from any and all liability or obligation with respect to such interpleaded assets or any action or nonaction based on a declaratory judgment.

(g) Any Person into which the Escrow Agent in its individual capacity may be merged or converted or with which it may be consolidated, or any Person resulting from any merger, conversion or consolidation to which the Escrow Agent in its individual capacity shall be a party, or any Person to which substantially all the corporate trust business of the Escrow Agent in its individual capacity may be transferred, shall be the Escrow Agent under this Agreement without further act.

(h) The fees payable to the Escrow Agent for its acting as escrow agent hereunder, and the times of such payments and the parties responsible for such payments, shall be as set forth on *Exhibit B* hereto.

(i) Parent shall hold the Escrow Agent harmless and indemnify the Escrow Agent from and against, any and all expenses, including reasonable counsel fees and disbursements, or loss suffered by the Escrow Agent in connection with any action, suit or other proceeding brought against the Escrow Agent involving any claim, or in connection with any claim or demand that in any way arises out of or relates to this Agreement, the services of the Escrow Agent hereunder or the Escrow Amount or any income earned from investment of the Escrow Amount, except for expenses and losses resulting from the Escrow Agent s gross negligence, bad faith or willful

misconduct. Promptly after the receipt by the Escrow Agent of notice of demand or claim or the commencement of any action, suit or proceeding, pursuant to which the Escrow Agent intends to seek indemnification under this paragraph, it shall notify Parent in writing of such claim (hereinafter referred to as the *Indemnified Claim*). At its election, Parent may assume the conduct of the Escrow Agent s defense in any such action or claim at its sole cost and expense. In the event that Parent elects to assume the defense of any such action or claim and confirm to you in writing that the indemnity provided for in this *Section 7(i)* applies to such action or claim, Parent shall not be liable for the fees and expenses of any counsel thereafter retained by you.

(j) Parent shall from time to time deliver to the Escrow Agent certificates as to the identity of the individuals authorized to give instructions, certificates and notices hereunder and otherwise to act on behalf of Parent, which certificates shall contain specimens of such individuals signatures.

8. *Tax Matters*.

(a) Parent or each Person entitled to receive any portion of the Second Payment Consideration, as the case may be, shall be responsible for his, her or its own Taxes in respect of (i) any Escrow Amounts released from the Escrow Account in accordance with the terms hereof and (ii) any other amounts earned in the Escrow Amount that are considered to accrue to Parent or any Person entitled to receive any portion of the Second Payment Consideration for U.S. federal income tax purposes. It is understood that the Escrow Agent shall be responsible for information reporting only with respect to income earned on investment of funds which are part of the Escrow Amount, and for which the Escrow Agent has received the necessary information, and is not responsible for any other reporting. The Escrow Agent shall provide any necessary information reporting forms, other tax forms or certificates to Parent and any Persons entitled to receive any portion of the Second Payment Consideration consistent with the foregoing.

(b) Escrow Agent has no ownership interest in the Escrow Amount but is serving as escrow holder having only possession thereof.

(c) Parent shall provide the Escrow Agent with its certified tax identification numbers by furnishing the appropriate form W-9 and such other forms and documents that the Escrow Agent may reasonably request.

(d) The Escrow Agent shall be entitled to reduce or otherwise set-off against any payments made or deemed made by the Escrow Agent to Parent or to Persons entitled to receive any portion of the Second Payment Consideration any amounts the that the Escrow Agent believes it is required to withhold by law. Any amounts withheld pursuant to this *Section 8(d)* shall be paid over by the Escrow Agent to the appropriate taxing authority.

(e) Within ten (10) days following the end of each calendar month for which this Agreement is in effect or during which the termination of the Escrow Account occurs, the Escrow Agent shall provide Parent and Avigen Representative with account statements setting forth the amount of interest or other earnings accrued on the Escrow Amount to date that year (or, the Escrow Account is terminated during the relevant calendar month, from the beginning of the calendar year to the date of such termination).

9. *Security Procedures*.

In the event that Parent gives any funds transfer instructions, whether in writing, by telecopier or otherwise, the Escrow Agent is authorized to seek confirmation of such instructions by telephone call-back to the individuals designated on *Exhibit C* hereto, and the Escrow Agent may rely upon the confirmation of anyone purporting to be the individuals so designated. The persons and telephone numbers for call-backs may be changed by Parent only in a writing actually received and acknowledged by the Escrow Agent. All individuals designated by Parent to give funds transfer instructions to the Escrow Agent are indicated in *Exhibit C* hereof. *Exhibit C* may be amended from time to time by written notice to the Escrow Agent by Parent. The Escrow Agent may rely solely upon any account numbers or similar identifying numbers provided by Parent. The Escrow

Table of Contents

Agent may apply any of the Escrow Amount for any payment order it executes using any such identifying number. The parties to this Agreement acknowledge that these security procedures are commercially reasonable.

10. *Notices*.

All notices and other communications required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been duly given (i) on the date of delivery, if delivered personally or by facsimile, upon confirmation of receipt, (ii) on the first Business Day following the date of dispatch if delivered by a recognized next-day courier services or (iii) on the third Business Day following the date of mailing if delivered by registered or certified mail, return receipt requested, postage prepaid, to the parties to this Agreement at the following address or to such other address either party to this Agreement shall specify by notice to the other party:

(a) if to Parent:

MediciNova, Inc.

4350 La Jolla Village Drive

Suite 950

San Diego, CA 92122

Attn: Shintaro Asako, Chief Financial Officer

Facsimile No.: (858) 373-7000

with a copy to:

Dechert LLP

1775 I Street, N.W.

Washington, DC 20006

Attention: David E. Schulman

Facsimile No.: (202) 261-3333

(b) If to Avigen Representative:

with a copy to:

(c) if to the Escrow Agent:

American Stock Transfer & Trust Company, LLC

Administrative Support

6201 15th Avenue

Brooklyn, NY 11219

Attention: Herbert Lemmer

Facsimile No.: (718) 331-1852

11. *Severability*.

In the event that any provision of this Agreement or the application thereof, becomes or is declared by a court of competent jurisdiction to be invalid, illegal, void or unenforceable, the remainder of this Agreement shall continue in full force and effect and the application of such provision to other Persons or circumstances will be interpreted so as reasonably to effect the intent of the parties hereto. The parties further agree to negotiate in good faith to replace such void or unenforceable provision of this Agreement with a valid and enforceable provision that will achieve, to the greatest extent possible, the economic, business and other purposes of such void or unenforceable provision.

Table of Contents

12. *Assignment*.

No party may assign either this Agreement or any of its rights, interests, or obligations hereunder without the prior written approval of the other parties. Any purported assignment in violation of this *Section 12* shall be void. Subject to the preceding sentence, this Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and permitted assigns.

13. *Benefits of the Agreement*.

Nothing in this Agreement, express or implied, shall give to any Person (other than the parties hereto, Persons entitled to receive any portion of the Second Payment Consideration and their successors and assigns) any benefit or any legal or equitable right, remedy or claim under this Agreement or under any covenant or provision herein contained, all such covenants and provisions being for the sole benefit of the parties hereto, Persons entitled to receive any portion of the Second Payment Consideration and their successors and assigns.

14. *Governing Law*.

This Agreement and shall be governed by and construed in accordance with the laws of the State of Delaware.

15. *Waiver of Trial by Jury*.

Each of the parties hereto hereby irrevocably waives any and all right to trial by jury in any legal proceeding arising out of or related to this Agreement or the transactions contemplated hereby.

16. *Headings*.

The Section headings herein are included for convenience of reference only and shall be ignored in the construction or interpretation hereof.

17. *Counterparts*.

This Agreement may be signed in two or more counterparts, all of which shall be considered the same agreement and shall become effective when one or more counterparts have been signed by each of the parties and delivered to the other party, it being understood that all parties need not sign the same counterpart.

18. *Consent or Waiver*.

(a) Any waiver by a party hereto of any provision hereof shall be valid only if set forth in an instrument in writing signed by Parent, Avigen Representative and the Escrow Agent. The failure of any party to assert any of its rights under this Agreement or otherwise shall not constitute a waiver of such rights.

(b) No failure or delay by any party in exercising any right, power or privilege hereunder shall operate as a waiver thereof nor shall any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power or privilege. The rights and remedies herein provided shall be cumulative and not exclusive of any rights or remedies provided by applicable law.

19. *Modification of Agreement*.

No amendment, modification, waiver or discharge of this Agreement shall bind any party unless in writing and signed by or on behalf of such party.

Table of Contents

20. *Patriot Act Disclosure*.

Section 326 of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001, as amended (*USA PATRIOT Act*), requires the Escrow Agent to implement reasonable procedures to verify the identity of any person that opens a new account with it. Accordingly, Parent and the Company acknowledge that Section 326 of the USA PATRIOT Act and the Escrow Agent s identity verification procedures require the Escrow Agent to obtain information which may be used to confirm each of their identities, including name, address and organizational documents (the *Identifying Information*). Parent and the Company agree to provide the Escrow Agent with and consent to the Escrow Agent obtaining from third parties any such Identifying Information required as a condition of opening an account with or using any service provided by the Escrow Agent.

21. *Compliance with Court Orders*.

In the event that any of the Escrow Amount shall be attached, garnished or levied upon by any court order, or the delivery thereof shall be stayed or enjoined by an order of a court, or any order, judgment or decree shall be made or entered by any court order affecting the Escrow Amount deposited under this Agreement, the Escrow Agent is hereby expressly authorized, in its sole discretion, to obey and comply with all writs, orders or decrees so entered or issued, which it is advised by legal counsel of its own choosing is binding upon it, whether with or without jurisdiction, and in the event that the Escrow Agent obeys or complies with any such writ, order or decree it shall not be liable to any of the parties hereto or to any other Person, by reason of such compliance notwithstanding such writ, order or decree be subsequently reversed, modified, annulled, set aside or vacated.

****

Table of Contents

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the date first written above.

MEDICINOVA, INC.

By:
Name: Shintaro Asako

Title: Vice President and Chief Financial Officer

[AVIGEN REPRESENTATIVE]

By:
Name:

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC

By:
Name:

Title:

Table of Contents

Exhibit A

Form of Demand Certificate

Table of Contents

Exhibit B

Compensation of Escrow Agent

Table of Contents

Exhibit C

Telephone Number(s) for Call-Backs and

Person(s) Designated to Give or Confirm Funds Transfer Instructions

Name	Telephone Number	Signature

Table of Contents

ANNEX F

August 20, 2009

The Board of Directors

MediciNova, Inc.

4350 La Jolla Village Drive

San Diego, CA 92122

Ladies and Gentlemen:

We have been advised that MediciNova, Inc. (the Company) intends to enter into an Agreement and Plan of Merger (the Merger Agreement), between the Company, Absolute Merger, Inc, a wholly-owned subsidiary of the Company (Merger Sub), and Avigen, Inc. (Avigen). Capitalized terms used herein, but not defined herein, shall have the meanings ascribed to them in the Merger Agreement and other ancillary documents to be entered into in connection with the Merger Agreement (collectively, the Merger Documents).

Pursuant to the Merger Documents, at the Merger Effective Time, Merger Sub will merge with and into Avigen and each share of Avigen common stock, par value $0.001 (the Avigen Common Stock) and the associated preferred share purchase right (the Avigen Right and collectively with Avigen Common Stock, the Avigen Shares) automatically shall be converted into the right to receive the following:

(1) an amount equal to the First Payment Consideration and the Second Payment Consideration (if any) payable in cash, in the form of a Convertible Note (convertible into shares of the Company s common stock, par value $0.001, at $6.80 per share) or a combination thereof (at the election of each holder of Avigen Shares), and;

(2) one Contingent Payment Right.

Pursuant to the Merger Documents, and subject to certain adjustments provided for therein, the aggregate First Payment Consideration is estimated to be approximately $35.461 million, the aggregate Second Payment Consideration (if any) is estimated to be approximately $1.500 million and therefore the aggregate Merger Consideration is estimated to be approximately $36.961 million.

Further, such aggregate Merger Consideration will be funded by Avigen s approximately $33.961 million cash, net of estimated expenses, and by $3.000 million of the Company s cash. For the purposes of this opinion the term Net Merger Consideration refers to and is defined as the $3.000 million to be paid by the Company and the embedded option value of the Convertible Notes Consideration.

The terms and conditions of the Merger and the other actions contemplated are more specifically set forth in the Merger Documents.

Table of Contents

Ladenburg is a full service investment bank providing investment banking, brokerage, equity research, institutional sales and trading, and asset management services. In the ordinary course of business, Ladenburg, certain of our affiliates, as well as investment funds in which we or our affiliates may have financial interests, may acquire, hold or sell long or short positions, or trade or otherwise effect transactions in debt, equity, and other securities and financial instruments (including bank loans and other obligations) of, or investments in, the Company or Avigen, any other party that may be involved in the Merger and/or their respective affiliates.

We have been retained to render an opinion as to whether, on the date of such opinion, the Net Merger Consideration is fair, from a financial point of view, to the Company s stockholders.

Our opinion does not address any other term or aspect of the Merger or the Merger Documents, including, but not limited to, the fairness of the Merger to, or any consideration therewith by, any other stockholders, creditors or other constituencies nor as to the fairness of the amount or nature of the compensation to any officers, directors or employees of any parties to the Merger, or class of such persons, relative to the Net Merger Consideration. We do not express any opinion as to the underlying valuation or future performance of the Company or Avigen, or the price at which the Company s or Avigen s securities might trade at any time in the future.

We have not been requested to opine as to, and our opinion does not address, the relative merits of the Merger as compared to any alternative business strategy that might exist for the Company, the decision of whether the Company should complete the Merger, and other alternatives to the Merger that might exist for the Company. The financial and other terms of the Merger were determined pursuant to negotiations between the Company, Avigen and each of their respective advisors, and not pursuant to any recommendations from us.

In arriving at our opinion, we took into account an assessment of general economic, market and financial conditions as well as our experience in connection with similar transactions and securities valuations generally and, among other things:

Reviewed drafts of the Merger Documents dated as of August 20, 2009.

Reviewed publicly-available financial information and other data with respect to the Company that we deemed relevant, including the Annual Report on Form 10-K for the year ended December 31, 2008, the Quarterly Report on Form 10-Q for the quarter ended June 30, 2009, and the Current Report on Form 8-K filed June 25, 2009.

Reviewed publicly-available financial information and other data with respect to Avigen that we deemed relevant, including the Annual Report on Form 10-K for the year ended December 31, 2008 (as amended), the Quarterly Report on Form 10-Q for the quarter ended June 30, 2009, and the Current Report on Form 8-K filed June 25, 2009.

Reviewed non-public information and other data with respect to the Company and Avigen, including, internal financial information and management reports.

Reviewed certain stock analyst research reports on the Company and Avigen.

Reviewed and analyzed the Merger s pro forma impact on the Company s outstanding securities and stockholder ownership.

Considered the present financial condition of the Company and Avigen.

Reviewed the trading of, and the trading market for, the Company and Avigen s common stock.

Table of Contents

Reviewed and analyzed the indicated value range of the Net Merger Consideration, including the derivation of the embedded option value of the Convertible Notes Consideration utilizing a Black-Scholes Analysis.

Reviewed and analyzed historical stock price volatilities of the Company and publicly-traded companies that were deemed to have characteristics comparable to the Company.

Reviewed and analyzed certain biotechnology common stock equity offerings completed to date in 2009.

Reviewed and analyzed the value of Avigen s assets, including, but not limited to, the potential value of recreating and utilizing AV411 intellectual property and associated clinical data.

Reviewed and analyzed the potential value of an accelerated launch of MN166.

Reviewed and analyzed the potential equity offering cost savings of the Convertible Notes (if converted) as compared to a secondary offering of the Company s securities.

Reviewed and discussed with Company and Avigen management and other Company and Avigen representatives certain financial and operating information furnished by them, including financial analyses with respect to the Company s and Avigen s business and operations.

Performed such other analyses and examinations as were deemed appropriate.

In arriving at our opinion, with your consent, we have relied upon and assumed, without assuming any responsibility for independent verification, the accuracy and completeness of all of the financial and other information that was supplied or otherwise made available to us and we have further relied upon the assurances of the Company s and Avigen s management that they were not aware of any facts or circumstances that would make any such information inaccurate or misleading. With respect to the financial information reviewed, we assumed that such information was reasonably prepared on a basis reflecting the best currently available estimates and good faith judgments of the management of the Company and Avigen, and that such information provides a reasonable basis upon which we could make our analysis and form an opinion. We have not evaluated the solvency or fair value of the Company or Avigen, including without limitation any actuarial analyses, under any applicable foreign, state or federal laws relating to bankruptcy, insolvency or similar matters. We have not physically inspected the Company s or Avigen s properties and facilities and have not made or obtained any evaluations or appraisals of the Company s or Avigen s assets and liabilities (including any contingent, derivative or off-balance-sheet assets and liabilities). We have not attempted to confirm whether the Company and Avigen have good title to their respective assets.

We assumed that the Merger will be consummated in a manner that complies in all respects with applicable foreign, federal, state and local laws, rules and regulations. We have assumed, with your consent, that the final executed forms of the Merger Documents do not differ in any material respect from the drafts we have reviewed and that the Merger will be consummated on the terms set forth in the Merger Documents, without further amendments thereto, and without waiver by the Company of conditions to any of its obligations thereunder or in the alternative that any

such amendments or waivers thereto will not be detrimental to the Company or its stockholders in any material respect. We also have assumed, with your consent, that obtaining the necessary regulatory or third party approvals and consents for the Merger will not have an adverse effect on the Company, Avigen or the Merger. We have also assumed that the representations and warranties of the parties thereto contained in the Merger Documents are true and correct and that each such party will perform all of the covenants and agreements to be performed by it under the Merger Documents. At your direction, we have not

been asked to, nor do we, offer any opinion as to the contractual terms of the Merger Documents or the prospect that the conditions set forth in the Merger Documents will be satisfied.

Our analysis and opinion are necessarily based upon market, economic and other conditions, as they exist on, and could be evaluated as of, August 20, 2009. Accordingly, although subsequent developments may affect our opinion, we do not assume any obligation to update, review or reaffirm our opinion to you or any other person.

Our opinion is for the use and benefit of the Board of Directors of the Company in connection with its consideration of the Merger. Our opinion may not be used by any other person, including the stockholders, noteholders, lenders or creditors of the Company or for any other purpose without our prior written consent. Our opinion is not intended to and does not constitute an opinion or recommendation to any of the Company s stockholders as to how such stockholder should vote or act with respect to the Merger, should a vote of such stockholders be required, or any matter relating thereto. Our opinion should not be construed as creating any fiduciary duty on our part to any party to the Merger Documents or any other person.

In connection with our services, and pursuant to that certain Fairness Opinion Agreement between Ladenburg and the Board of Directors of the Company dated June 29, 2009 (the Ladenburg Engagement Agreement), we have received a retainer and are entitled to receive the balance of our fee, which is not contingent upon the completion of the Merger. Also, pursuant to the Ladenburg Engagement Agreement, the Company has agreed to indemnify us for certain liabilities that may arise out of the rendering of this opinion. Ladenburg has not previously provided, nor are there any pending agreements to provide, any other services to the Company.

Under our policies and procedures, a fairness committee did not approve or issue this opinion and was not required to do so.

Based upon and subject to the foregoing, it is our opinion that, as of the date of this letter, the Net Merger Consideration is fair, from a financial point of view, to the Company s stockholders.

Very truly yours,

/s/ Ladenburg Thalmann & Co. Inc.

Table of Contents

ANNEX G

August 20, 2009

The Board of Directors

Avigen, Inc.

1301 Harbor Bay Parkway

Alameda, CA 94502

Members of the Board of Directors:

You have requested our opinion as to the fairness, from a financial point of view, to the holders (the Stockholders) of the common stock, par value $0.001 per share (the Common Stock), of Avigen, Inc., a Delaware corporation (the Company), of the Merger Consideration (as defined below) provided for under the terms of the proposed Agreement and Plan of Merger (the Agreement) by and among MediciNova, Inc., a Delaware corporation (Parent), Absolute Merger Inc., a Delaware corporation and direct wholly-owned subsidiary of Parent (Merger Sub), and the Company. Capitalized terms used herein shall have the meanings used in the Agreement unless otherwise defined herein.

The Agreement provides, among other things, that, subject to the terms and conditions specified therein, at the Merger Effective Time, Merger Sub will merge with and into the Company (the Merger), the separate corporate existence of Merger Sub will thereupon cease, and each share of Common Stock (a Share) issued and outstanding immediately prior to the Effective Time will be converted into the right to receive its pro rata portion of (i) at each Stockholders election, either Cash Consideration or Convertible Notes Consideration (or, if no election is made, a combination of Cash Consideration and Convertible Note Consideration); and (ii) a Contingent Payment Right (the Merger Consideration). Each share subject to a Cash Consideration election shall be entitled to be exchanged for Cash Consideration consisting of its pro rata share of $35,461,000 (or $1.19 per share[1]) in the form of cash, subject to certain adjustments (First Payment Consideration), as an initial payment at Closing and its pro rata share of $1,500,000 (or $0.05 per share[1]) subject to certain adjustments (Second Payment Consideration), as a second payment after June 30, 2010. Each share subject to a Convertible Notes Consideration election shall be exchanged for Convertible Notes Consideration consisting of its pro rata share of the First Payment Consideration and Second Payment Consideration, in the form of a convertible note which allows each Stockholder at such Stockholder s election to either (a) convert the convertible note into shares of Parent Common Stock at a conversion price of $6.80 per share at certain pre-specified accelerated conversion dates or 18 months from the closing of the Merger (the Final Conversion Date), or (b) have the convertible note redeemed by Parent on the Final Conversion Date for cash. Each share regardless of election shall receive a Contingent Payment Right representing the right to receive its pro rata share of up to an estimated $6,550,000 (or $0.22 per share[1]), contingent upon the occurrence of certain events following consummation of the Merger.

RBC Capital Markets Corporation (RBC) is a global, full service securities firm engaged in securities trading and brokerage activities, and providing investment banking, investment management and financial advisory services. In the ordinary course of its trading, brokerage, investment and asset management and financial

[1] Per share calculations assume 29.8 million shares of Avigen Common Stock outstanding as of August 20, 2009 calculated using the treasury stock method and based upon shares outstanding and options and warrants data as provided by Avigen management.

Table of Contents

activities, RBC and its affiliates may hold long or short positions, and may trade or otherwise effect or recommend transactions, for its own account or the accounts of its customers, in debt or equity securities or loans of the Company or any other company that may be involved in a transaction with the Company, including Parent. Further, in connection with its merchant banking activities, RBC may have made investments in the Company or any other company that may be involved in a transaction with the Company, including Parent. As a global, full service financial organization, RBC and its affiliates may also provide a broad range of normal course financial products and services to its customers (including, but not limited to investment banking, commercial banking, credit derivative, hedging and foreign exchange products and services), including companies that may be involved in certain transactions with the Company or Parent.

We are acting as financial advisor to the Board of Directors of the Company (the Board) in connection with the Merger and pursuant to an engagement letter between the Company and RBC dated January 13, 2009, and as amended on March 20, 2009, April 23, 2009 and June 3, 2009 (the Engagement Letter). We will receive a fee for our services upon delivery of this opinion, which is not contingent upon the successful completion of the Merger. For our services as financial advisor to the Company, if the Merger is successfully completed we will be entitled to receive an additional larger fee (against which will be credited the fees paid to RBC for prior services provided to the Company Board under the Engagement Letter and the fee payable for the delivery of this opinion). Further, in the event that the Merger is not completed and the Company consummates at any time thereafter, pursuant to a definitive agreement entered into during the term of RBC s engagement or during the 12 months following such term, another Transaction , (i) if such Transaction constitutes a change in control of the Company, we will be entitled to a specified Transaction fee (all as specified in the Engagement Letter). In addition, the Company has agreed to indemnify us for certain liabilities that may arise out of our engagement and to reimburse the reasonable out-of-pocket expenses incurred by us in performing our services (subject to a limit which may not be exceeded without the Company s written approval). In the past two years we have provided the following investment banking and financial advisory services to the Company, in addition to our services as financial advisor to the Company Board in connection with the Merger: (i) in 2009, we acted as financial advisor to the Company Board in connection with strategic defense analysis and services for which we received a fee (Defense Fee) that will be credited against the contingent fee we will receive if the Merger is completed (as provided for in the Engagement Letter); and (ii) in 2009, we acted as financial advisor to the Company Board in connection with an unsolicited offer by the Parent and, in that capacity, among other things, we delivered an adequacy opinion to the Company Board dated April 23, 2009 (the Adequacy Opinion) as to the adequacy, from a financial point of view, of the consideration payable to the Stockholders in connection with the unsolicited offer, for which we received a fee that was credited against the Defense Fee (as provided for the Engagement Letter). In the ordinary course of business, RBC may act as a market maker and broker in the publicly traded securities of the Company and receive customary compensation, and may also actively trade securities of the Company for our own account and the accounts of our customers, and, accordingly, RBC and its affiliates, may hold a long or short position in such securities.

For the purposes of rendering our opinion, we have undertaken such review, inquiries and analyses as we deemed necessary or appropriate under the circumstances, including the following: (i) we reviewed the financial terms of the draft Agreement dated August 20, 2009 (the Latest Draft Agreement); (ii) we reviewed and analyzed certain publicly available financial and other data with respect to the Company and Parent and certain other relevant historical operating data relating to the Company and Parent made available to us from published sources and from the internal records of the Company and Parent; (iii) we conducted discussions with members of the senior managements of the Company and Parent with respect to the business prospects and financial outlook of the Company and Parent; (iv) we reviewed historical financial information relating to the Company and Parent; (v) we reviewed financial data, estimates and forecasts of the Company as a standalone entity (Financial Data), including a liquidation analysis, prepared by the management of the Company; (vi) we reviewed IBES, First Call, publicly available equity research reports and Thomson One Analytics consensus estimates regarding the potential future performance of the Parent; (vii) we reviewed the reported prices and trading activity for Company Common Stock and Parent Common Stock; (viii) we performed a Black-Scholes analysis to assess the valuation of the convertible notes; and (ix) we considered such other information and

Table of Contents

performed other studies and analyses as we deemed appropriate, including recent developments with respect to the Company s business.

In arriving at our opinion, we performed the following analyses in addition to the review, inquiries, and analyses referred to in the preceding paragraph: (i) we compared the aggregate value of the Merger Consideration pursuant to a cash election to the aggregate liquidation value of the Company based upon estimates provided to us by the management of the Company (Company Liquidation Aggregate Value); (ii) we compared the net present value of the Merger Consideration pursuant to a cash election to the net present value of the liquidation of the Company based upon estimates provided to us by the management of the Company (Company Liquidation Present Value); (iii) we compared the aggregate value of the Merger Consideration pursuant to a convertible note election to the Company Liquidation Aggregate Value; and (iv) we compared the net present value of the Merger Consideration pursuant to a convertible note election to the Company Liquidation Present Value.

Several analytical methodologies have been employed and no one method of analysis should be regarded as critical to the overall conclusion we have reached. Each analytical technique has inherent strengths and weaknesses, and the nature of the available information may further affect the value of particular techniques. The overall conclusions we have reached are based on the analysis and factors presented, taken as a whole, and also on application of our own experience and judgment. Such conclusions may involve significant elements of subjective judgment and qualitative analysis. We therefore express no opinion as to the value or merit standing alone of any one or more parts of the analyses.

In rendering our opinion, we have assumed and relied upon the accuracy and completeness of all the information that was publicly available to us and all of the financial, legal, tax, operating and other information provided to or discussed with us by the Company, Parent and their representatives (including, without limitation, the financial statements and related notes thereto of the Company and Parent), and have not assumed responsibility for independently verifying and have not independently verified any such information. We have assumed that all Financial Data provided to us by the management of the Company were reasonably prepared on bases reflecting the best currently available estimates and good faith judgments of the future financial estimates of the Company, as a standalone entity. We express no opinion as to such Financial Data or the assumptions upon which they were based.

In rendering our opinion, we have not assumed any responsibility to perform, and have not performed, an independent evaluation or appraisal of any of the assets or liabilities of the Company or Parent, and we have not been furnished with any such valuations or appraisals. We have not assumed any obligation to conduct, and have not conducted, any physical inspection of the property or facilities of the Company. We have not investigated, and make no assumption regarding, any litigation or other claims affecting the Company. We have not investigated, and make no assumption, regarding the solvency of the Company, Parent or Merger Sub.

We have assumed, in all respects material to our analysis, that all conditions to the consummation of the Merger will be satisfied without waiver thereof. We have further assumed that the executed version of the Agreement will not differ, in any respect material to our opinion, from the Latest Draft Agreement.

Our opinion speaks only as of the date hereof, is based on the conditions as they exist and information which we have been supplied as of the date hereof, and is without regard to any market, economic, financial, legal, or other circumstances or event of any kind or nature which may exist or occur after such date. We have not undertaken to reaffirm or revise this opinion or otherwise comment upon events occurring after the date hereof and do not have an obligation to update, revise or reaffirm this opinion.

The opinion expressed herein is provided solely for the information and assistance of the Company Board in connection with the Merger. We express no opinion and make no recommendation to any Stockholder as to how such Stockholder should vote with respect to the Merger. All advice and opinions (written and oral) rendered by

Table of Contents

RBC are intended solely for the use and benefit of the Company Board. Such advice or opinions may not be reproduced, summarized, excerpted from or referred to in any public document or given to any other person without the prior written consent of RBC. If required by applicable law, such opinion may be included in any disclosure document filed by the Company with the SEC with respect to the Merger; *provided*, *however*, that such opinion must be reproduced in full and that any description of or reference to RBC be in a form reasonably acceptable to RBC and its counsel. RBC shall have no responsibility for the form or content of any such disclosure document, other than the opinion itself if so reproduced. RBC consents to a description of and the inclusion of the text of this opinion in any filing required to be made by the Company with the SEC in connection with the Merger and in materials delivered to the Stockholders that are a part of such filings; *provided, however*, that such description must be in a form reasonably acceptable to RBC and its counsel.

Our opinion does not address the merits of the underlying decision by the Company to engage in the Merger or the relative merits of the Merger compared to any alternative business strategy or transaction in which the Company might engage.

Our opinion addresses solely the fairness of the Merger Consideration, from a financial point of view, to the Stockholders. Our opinion does not in any way address other terms or arrangements of the Merger or the Agreement, including, without limitation, the financial or other terms of any other agreement contemplated by, or to be entered into in connection with, the Agreement. Further, in rendering our opinion we express no opinion about the fairness of the amount or nature of the compensation to any of the Company s officers, directors or employees, or class of such persons, relative to the compensation to the Company s Stockholders.

Our opinion has been approved by RBC s M&A Fairness Opinion Committee.

Based on our experience as investment bankers and subject to the foregoing, including the various assumptions and limitations set forth herein, it is our opinion that, as of the date hereof, the Merger Consideration is fair, from a financial point of view, to the Stockholders.

Very truly yours,

/s/ RBC Capital Markets Corporation

RBC CAPITAL MARKETS CORPORATION

Table of Contents

ANNEX H

COPY OF SECTION 262 OF THE DELAWARE GENERAL CORPORATION LAW

262. APPRAISAL RIGHTS.

(a) Any stockholder of a corporation of this State who holds shares of stock on the date of the making of a demand pursuant to subsection (d) of this section with respect to such shares, who continuously holds such shares through the effective date of the merger or consolidation, who has otherwise complied with subsection (d) of this section and who has neither voted in favor of the merger or consolidation nor consented thereto in writing pursuant to §228 of this title shall be entitled to an appraisal by the Court of Chancery of the fair value of the stockholder s shares of stock under the circumstances described in subsections (b) and (c) of this section. As used in this section, the word stockholder means a holder of record of stock in a stock corporation and also a member of record of a nonstock corporation; the words stock and share mean and include what is ordinarily meant by those words and also membership or membership interest of a member of a nonstock corporation; and the words depository receipt mean a receipt or other instrument issued by a depository representing an interest in one or more shares, or fractions thereof, solely of stock of a corporation, which stock is deposited with the depository.

(b) Appraisal rights shall be available for the shares of any class or series of stock of a constituent corporation in a merger or consolidation to be effected pursuant to §251 (other than a merger effected pursuant to §251(g) of this title), §252, §254, §257, §258, §263 or §264 of this title:

1. Provided, however, that no appraisal rights under this section shall be available for the shares of any class or series of stock, which stock, or depository receipts in respect thereof, at the record date fixed to determine the stockholders entitled to receive notice of the meeting of stockholders to act upon the agreement of merger or consolidation, were either (i) listed on a national securities exchange or (ii) held of record by more than 2,000 holders; and further provided that no appraisal rights shall be available for any shares of stock of the constituent corporation surviving a merger if the merger did not require for its approval the vote of the stockholders of the surviving corporation as provided in § 251(f) of this title.

2. Notwithstanding paragraph (1) of this subsection, appraisal rights under this section shall be available for the shares of any class or series of stock of a constituent corporation if the holders thereof are required by the terms of an agreement of merger or consolidation pursuant to §§ 251, 252, 254, 257, 258, 263 and 264 of this title to accept for such stock anything except:

a. Shares of stock of the corporation surviving or resulting from such merger or consolidation, or depository receipts in respect thereof;

b. Shares of stock of any other corporation, or depository receipts in respect thereof, which shares of stock (or depository receipts in respect thereof) or depository receipts at the effective date of the merger or consolidation will be either listed on a national securities exchange or held of record by more than 2,000 holders;

c. Cash in lieu of fractional shares or fractional depository receipts described in the foregoing subparagraphs a. and b. of this paragraph; or

d. Any combination of the shares of stock, depository receipts and cash in lieu of fractional shares or fractional depository receipts described in the foregoing subparagraphs a., b. and c. of this paragraph.

3. In the event all of the stock of a subsidiary Delaware corporation party to a merger effected under § 253 of this title is not owned by the parent corporation immediately prior to the merger, appraisal rights shall be available for the shares of the subsidiary Delaware corporation.

(c) Any corporation may provide in its certificate of incorporation that appraisal rights under this section shall be available for the shares of any class or series of its stock as a result of an amendment to its certificate of incorporation, any merger or consolidation in which the corporation is a constituent corporation or the sale of all

or substantially all of the assets of the corporation. If the certificate of incorporation contains such a provision, the procedures of this section, including those set forth in subsections (d) and (e) of this section, shall apply as nearly as is practicable.

(d) Appraisal rights shall be perfected as follows:

1. If a proposed merger or consolidation for which appraisal rights are provided under this section is to be submitted for approval at a meeting of stockholders, the corporation, not less than 20 days prior to the meeting, shall notify each of its stockholders who was such on the record date for notice of such meeting with respect to shares for which appraisal rights are available pursuant to subsection (b) or (c) hereof that appraisal rights are available for any or all of the shares of the constituent corporations, and shall include in such notice a copy of this section. Each stockholder electing to demand the appraisal of such stockholder s shares shall deliver to the corporation, before the taking of the vote on the merger or consolidation, a written demand for appraisal of such stockholder s shares. Such demand will be sufficient if it reasonably informs the corporation of the identity of the stockholder and that the stockholder intends thereby to demand the appraisal of such stockholder s shares. A proxy or vote against the merger or consolidation shall not constitute such a demand. A stockholder electing to take such action must do so by a separate written demand as herein provided. Within 10 days after the effective date of such merger or consolidation, the surviving or resulting corporation shall notify each stockholder of each constituent corporation who has complied with this subsection and has not voted in favor of or consented to the merger or consolidation of the date that the merger or consolidation has become effective; or

2. If the merger or consolidation was approved pursuant to § 228 or § 253 of this title, then either a constituent corporation before the effective date of the merger or consolidation or the surviving or resulting corporation within 10 days thereafter shall notify each of the holders of any class or series of stock of such constituent corporation who are entitled to appraisal rights of the approval of the merger or consolidation and that appraisal rights are available for any or all shares of such class or series of stock of such constituent corporation, and shall include in such notice a copy of this section. Such notice may, and, if given on or after the effective date of the merger or consolidation, shall, also notify such stockholders of the effective date of the merger or consolidation. Any stockholder entitled to appraisal rights may, within 20 days after the date of mailing of such notice, demand in writing from the surviving or resulting corporation the appraisal of such holder s shares. Such demand will be sufficient if it reasonably informs the corporation of the identity of the stockholder and that the stockholder intends thereby to demand the appraisal of such holder s shares. If such notice did not notify stockholders of the effective date of the merger or consolidation, either (i) each such constituent corporation shall send a second notice before the effective date of the merger or consolidation notifying each of the holders of any class or series of stock of such constituent corporation that are entitled to appraisal rights of the effective date of the merger or consolidation or (ii) the surviving or resulting corporation shall send such a second notice to all such holders on or within 10 days after such effective date; provided, however, that if such second notice is sent more than 20 days following the sending of the first notice, such second notice need only be sent to each stockholder who is entitled to appraisal rights and who has demanded appraisal of such holder s shares in accordance with this subsection. An affidavit of the secretary or assistant secretary or of the transfer agent of the corporation that is required to give either notice that such notice has been given shall, in the absence of fraud, be prima facie evidence of the facts stated therein. For purposes of determining the stockholders entitled to receive either notice, each constituent corporation may fix, in advance, a record date that shall be not more than 10 days prior to the date the notice is given, provided, that if the notice is given on or after the effective date of the merger or consolidation, the record date shall be such effective date. If no record date is fixed and the notice is given prior to the effective date, the record date shall be the close of business on the day next preceding the day on which the notice is given.

(e) Within 120 days after the effective date of the merger or consolidation, the surviving or resulting corporation or any stockholder who has complied with subsections (a) and (d) of this section hereof and who is otherwise entitled to appraisal rights, may commence an appraisal proceeding by filing a petition in the Court of

Chancery demanding a determination of the value of the stock of all such stockholders. Notwithstanding the foregoing, at any time within 60 days after the effective date of the merger or consolidation, any stockholder who has not commenced an appraisal proceeding or joined that proceeding as a named party shall have the right to withdraw such stockholder s demand for appraisal and to accept the terms offered upon the merger or consolidation. Within 120 days after the effective date of the merger or consolidation, any stockholder who has complied with the requirements of subsections (a) and (d) of this section hereof, upon written request, shall be entitled to receive from the corporation surviving the merger or resulting from the consolidation a statement setting forth the aggregate number of shares not voted in favor of the merger or consolidation and with respect to which demands for appraisal have been received and the aggregate number of holders of such shares. Such written statement shall be mailed to the stockholder within 10 days after such stockholder s written request for such a statement is received by the surviving or resulting corporation or within 10 days after expiration of the period for delivery of demands for appraisal under subsection (d) of this section hereof, whichever is later. Notwithstanding subsection (a) of this section, a person who is the beneficial owner of shares of such stock held either in a voting trust or by a nominee on behalf of such person may, in such person s own name, file a petition or request from the corporation the statement described in this subsection.

(f) Upon the filing of any such petition by a stockholder, service of a copy thereof shall be made upon the surviving or resulting corporation, which shall within 20 days after such service file in the office of the Register in Chancery in which the petition was filed a duly verified list containing the names and addresses of all stockholders who have demanded payment for their shares and with whom agreements as to the value of their shares have not been reached by the surviving or resulting corporation. If the petition shall be filed by the surviving or resulting corporation, the petition shall be accompanied by such a duly verified list. The Register in Chancery, if so ordered by the Court, shall give notice of the time and place fixed for the hearing of such petition by registered or certified mail to the surviving or resulting corporation and to the stockholders shown on the list at the addresses therein stated. Such notice shall also be given by 1 or more publications at least 1 week before the day of the hearing, in a newspaper of general circulation published in the City of Wilmington, Delaware or such publication as the Court deems advisable. The forms of the notices by mail and by publication shall be approved by the Court, and the costs thereof shall be borne by the surviving or resulting corporation.

(g) At the hearing on such petition, the Court shall determine the stockholders who have complied with this section and who have become entitled to appraisal rights. The Court may require the stockholders who have demanded an appraisal for their shares and who hold stock represented by certificates to submit their certificates of stock to the Register in Chancery for notation thereon of the pendency of the appraisal proceedings; and if any stockholder fails to comply with such direction, the Court may dismiss the proceedings as to such stockholder.

(h) After the Court determines the stockholders entitled to an appraisal, the appraisal proceeding shall be conducted in accordance with the rules of the Court of Chancery, including any rules specifically governing appraisal proceedings. Through such proceeding the Court shall determine the fair value of the shares exclusive of any element of value arising from the accomplishment or expectation of the merger or consolidation, together with interest, if any, to be paid upon the amount determined to be the fair value. In determining such fair value, the Court shall take into account all relevant factors. Unless the Court in its discretion determines otherwise for good cause shown, interest from the effective date of the merger through the date of payment of the judgment shall be compounded quarterly and shall accrue at 5% over the Federal Reserve discount rate (including any surcharge) as established from time to time during the period between the effective date of the merger and the date of payment of the judgment. Upon application by the surviving or resulting corporation or by any stockholder entitled to participate in the appraisal proceeding, the Court may, in its discretion, proceed to trial upon the appraisal prior to the final determination of the stockholders entitled to an appraisal. Any stockholder whose name appears on the list filed by the surviving or resulting corporation pursuant to subsection (f) of this section and who has submitted such stockholder s certificates of stock to the Register in Chancery, if such is required, may participate fully in all proceedings until it is finally determined that such stockholder is not entitled to appraisal rights under this section.

Table of Contents

(i) The Court shall direct the payment of the fair value of the shares, together with interest, if any, by the surviving or resulting corporation to the stockholders entitled thereto. Payment shall be so made to each such stockholder, in the case of holders of uncertificated stock forthwith, and the case of holders of shares represented by certificates upon the surrender to the corporation of the certificates representing such stock. The Court s decree may be enforced as other decrees in the Court of Chancery may be enforced, whether such surviving or resulting corporation be a corporation of this State or of any state.

(j) The costs of the proceeding may be determined by the Court and taxed upon the parties as the Court deems equitable in the circumstances. Upon application of a stockholder, the Court may order all or a portion of the expenses incurred by any stockholder in connection with the appraisal proceeding, including, without limitation, reasonable attorney s fees and the fees and expenses of experts, to be charged pro rata against the value of all the shares entitled to an appraisal.

(k) From and after the effective date of the merger or consolidation, no stockholder who has demanded appraisal rights as provided in subsection (d) of this section shall be entitled to vote such stock for any purpose or to receive payment of dividends or other distributions on the stock (except dividends or other distributions payable to stockholders of record at a date which is prior to the effective date of the merger or consolidation); provided, however, that if no petition for an appraisal shall be filed within the time provided in subsection (e) of this section, or if such stockholder shall deliver to the surviving or resulting corporation a written withdrawal of such stockholder s demand for an appraisal and an acceptance of the merger or consolidation, either within 60 days after the effective date of the merger or consolidation as provided in subsection (e) of this section or thereafter with the written approval of the corporation, then the right of such stockholder to an appraisal shall cease. Notwithstanding the foregoing, no appraisal proceeding in the Court of Chancery shall be dismissed as to any stockholder without the approval of the Court, and such approval may be conditioned upon such terms as the Court deems just; provided, however that this provision shall not affect the right of any stockholder who has not commenced an appraisal proceeding or joined that proceeding as a named party to withdraw such stockholder s demand for appraisal and to accept the terms offered upon the merger or consolidation within 60 days after the effective date of the merger or consolidation, as set forth in subsection (e) of this section.

(l) The shares of the surviving or resulting corporation to which the shares of such objecting stockholders would have been converted had they assented to the merger or consolidation shall have the status of authorized and unissued shares of the surviving or resulting corporation.

Table of Contents

PART II. INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 20. Indemnification of Directors and Officers.

As permitted by Section 102 of the General Corporation Law of the State of Delaware, or the Delaware Corporation Law, MediciNova has adopted provisions in its restated certificate of incorporation, as amended, that limit or eliminate the personal liability of its directors for a breach of their fiduciary duty of care as a director. The duty of care generally requires that, when acting on behalf of the corporation, directors exercise an informed business judgment based on all material information reasonably available to them. Consequently, a director will not be personally liable to MediciNova or its stockholders for monetary damages or breach of fiduciary duty as a director, except for liability for: any breach of the director s duty of loyalty to MediciNova or its stockholders; any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law; any act related to unlawful stock repurchases, redemptions or other distributions or payment of dividends; or any transaction from which the director derived an improper personal benefit. These limitations of liability do not affect the availability of equitable remedies such as injunctive relief or rescission.

MediciNova s restated certificate of incorporation and amended and restated bylaws provide that all directors, officers, employees and agents of the registrant shall be entitled to be indemnified by MediciNova to the fullest extent permitted by the Delaware Corporation Law. Under Section 145 of the Delaware Corporation Law, MediciNova is permitted to offer indemnification to its directors, officers, employees and agents.

Section 145(a) of the Delaware Corporation Law provides, in general, that a corporation shall have the power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation), because the person is or was a director, officer, employee or agent of the corporation or is or was serving at the request of the corporation as a director, officer, employee or agent of any other enterprise. Such indemnity may be against expenses (including attorneys fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding, if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation and if, with respect to any criminal action or proceeding, the person did not have reasonable cause to believe the person s conduct was unlawful.

Section 145(b) of the Delaware Corporation Law provides, in general, that a corporation shall have the power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor because the person is or was a director, officer, employee or agent of the corporation or is or was serving at the request of the corporation as a director, officer, employee or agent of any other enterprise, against any expenses (including attorneys fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 145(g) of the Delaware Corporation Law provides, in general, that a corporation shall have the power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation or is or was serving at the request of the corporation as a director, officer, employee or agent of any other enterprise, against any liability asserted against the person in any such capacity, or arising out of the person s status as such, regardless of whether the corporation would have the power to indemnify the person against such liability under the provisions of the law. MediciNova has obtained liability insurance for the benefit of its directors and officers.

Table of Contents

Article VIII of MediciNova s restated certificate of incorporation, as amended, provides:

(B) Each person who is or was a director or officer of the Corporation or is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, employee benefit plan or other enterprise (including the heirs, executors, administrators or estate of such person), shall be indemnified and advanced expenses by the Corporation, in accordance with the bylaws of the Corporation, to the fullest extent authorized by the DGCL, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than said law permitted the Corporation to provide prior to such amendment) or any other applicable laws as presently or hereinafter in effect. The right to indemnification and advancement of expenses hereunder shall not be exclusive of any other right that any person may have or hereafter acquire under any statute, provision of the Restated Certificate of Incorporation, bylaws, agreement, vote of stockholders or disinterested directors or otherwise.

(C) The Corporation may, to the fullest extent permitted by law, purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation or another corporation, partnership, joint venture, trust, employee benefit plan or other enterprise against any expense, liability or loss incurred by such person in any such capacity or arising out of such person s status as such, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the DGCL.

Section 6.1 of MediciNova s amended and restated bylaws provides:

(a) Each person who was or is made a party or is threatened to be made a party to or is involved in any action, suit, or proceeding, whether civil, criminal, administrative or investigative (hereinafter a proceeding), by reason of the fact that he or she or a person of whom he or she is the legal representative is or was a director or officer of the corporation (or any predecessor) or is or was serving at the request of the corporation (or any predecessor) as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, employee benefit plan sponsored or maintained by the corporation, or other enterprise (or any predecessor of any of such entities), whether the basis of such proceeding is alleged action in an official capacity as a director, officer, employee or agent or in any other capacity while serving as a director, officer, employee or agent, shall be indemnified and held harmless by the corporation to the fullest extent authorized by the General Corporation Law of the State of Delaware, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the corporation to provide broader indemnification rights than said law permitted the corporation to provide prior to such amendment), against all expense, liability and loss (including attorneys fees, judgments, fines, ERISA excise taxes or penalties, and amounts paid or to be paid in settlement) reasonably incurred or suffered by such person in connection therewith; *provided, however*, that except as provided in Section 6.1(c), the corporation shall indemnify any such person seeking indemnification in connection with a proceeding (or part thereof) initiated by such person only if such proceeding (or part thereof) was authorized by the Board. The right to indemnification conferred in this Section 6.1 shall be a contract right.

In addition, MediciNova has entered into indemnification agreements with each of its executive officers and directors containing provisions that may require MediciNova to indemnify those officers and directors against liabilities that may arise by reason of their status or service as officers or directors. The agreements also provide for MediciNova to advance to the officers and directors expenses that they expect to incur as a result of any proceeding against them as to which they could be indemnified. MediciNova also intends to execute such agreements with its future directors and executive officers.

Table of Contents

ITEM 20. Exhibits.

The following exhibits are filed herewith or incorporated by reference herein.

Exhibit Number	Description
2.1*	Agreement and Plan of Merger by and among the Registrant, Absolute Merger, Inc. and Avigen, Inc., dated as of August 20, 2009 (attached as Annex A to the joint proxy statement/prospectus contained in this registration statement).
3.1(19)	Restated Certificate of Incorporation of the Registrant, as amended.
3.2(1)	Amended and Restated Bylaws of the Registrant.
4.1(10)	Specimen of Common Stock Certificate.
4.2(1)	Amended and Restated Registration Rights Agreement by and among the Registrant, its founders and the investors named therein, dated September 2, 2004.
4.3(11)	Rights Agreement between the Registrant and American Stock Transfer & Trust Company, which includes the form of Rights Certificate as *Exhibit B* and the Summary of Rights as *Exhibit C*, dated November 24, 2006.
4.4	Form of Indenture by and between Registrant and American Stock Transfer and Trust Company, LLC (attached as Annex C to the joint proxy statement/prospectus contained in this registration statement).
4.5	Form of Convertible Note (included in Exhibit 4.4).
5.1(23)	Opinion of Dechert LLP regarding the validity of the securities being registered.
8.1(26)	Opinion of Dechert LLP regarding material tax matters.
8.2(26)	Opinion of Cooley Godward Kronish LLP regarding material tax matters.
10.1(1)	2000 General Stock Incentive Plan of the Registrant.
10.2(2)	2004 Stock Incentive Plan of the Registrant.
10.3(5)	Form of Indemnification Agreement between the Registrant and its officers and directors.
10.4(2)	License Agreement between the Registrant and Kyorin Pharmaceutical Co., Ltd., dated March 14, 2002.
10.5(2)	License Agreement between the Registrant and Angiogene Pharmaceuticals, Ltd., dated June 19, 2002.
10.6(2)	Exclusive License Agreement between the Registrant and Kissei Pharmaceutical Co., Ltd., dated February 25, 2004.
10.7(2)	License Agreement between the Registrant and Mitsubishi Tanabe Pharma Corporation, dated April 27, 2004.
10.8(1)	Employment Agreement between the Registrant and Richard E. Gammans, Ph.D., dated June 14, 2004.
10.9(1)	Employment Agreement between the Registrant and Kenneth W. Locke, Ph.D., dated September 26, 2000, as amended.
10.10(3)	License Agreement between the Registrant and Kyorin Pharmaceutical Co., Ltd., dated October 22, 2004.
10.11(2)	Office Lease Agreement between the Registrant and CA-LA Jolla II Limited Partnership, dated January 28, 2004 and the First Amendment thereto, dated August 10, 2004.
10.12(3)	License Agreement between the Registrant and Mitsubishi Tanabe Pharma Corporation, dated December 8, 2004.

Table of Contents

Exhibit Number	Description
10.13(4)	Second Amendment to Office Lease Agreement between the Registrant and CA-La Jolla II Limited Partnership, dated March 21, 2005.
10.14(5)	Executive Employment Agreement between the Registrant and Shintaro Asako, CPA, dated July 18, 2005.
10.15(10)	Executive Employment Agreement between the Registrant and Masatsune Okajima, dated September 1, 2006.
10.16(6)	License Agreement, dated October 31, 2006 by and between the Registrant and Meiji Seika Kaisha, Ltd.
10.17(6)	License Agreement, dated October 31, 2006 by and between the Registrant and Meiji Seika Kaisha, Ltd.
10.18(7)	Executive Employment Agreement between the Registrant and Yuichi Iwaki, M.D., Ph.D., dated April 1, 2007.
10.19(12)	2007 Employee Stock Purchase Plan of the Registrant.
10.20(8)	Form of Severance Protection Agreement between the Registrant and certain of its executive officers, dated September 12, 2007.
10.21(9)	Third Amendment to Office Lease Agreement between the Registrant and 4350 La Jolla Village LLC, dated January 31, 2008.
10.22(13)	Severance Agreement and Release by and between the Registrant and Kenneth W. Locke, dated April 30, 2008.
10.23(13)	Consulting Agreement by and between the Registrant and Kenneth W. Locke, dated May 1, 2008.
10.24(14)	Amendment to the Amended and Restated 2004 Stock Incentive Plan of the Registrant, dated June 6, 2008.
10.25(15)	Executive Employment Agreement between the Registrant and Michael E. Kalafer, M.D., dated July 3, 2008.
10.26(16)	Fourth Amendment to Lease Agreement between the Registrant and 4350 La Jolla Village LLC, dated October 3, 2008.
10.27(17)	Credit Line Account Application and Agreement for Organizations and Businesses, executed by the Registrant on January 8, 2009, by and between the Registrant and UBS Bank USA.
10.28(17)	Addendum to Credit Line Account Application and Agreement, executed by the Registrant on January 8, 2009, by and between the Registrant, UBS Bank USA and UBS Financial Services Inc.
10.29(17)	Addendum to Credit Line Agreement, executed by the Registrant on January 8, 2009, by and between the Registrant and UBS Bank USA.
10.30(17)	Important Notice on Interest Rates and Payments, executed by the Registrant on January 8, 2009, by and between the Registrant and UBS Bank USA.
10.31(18)	Development and Supply Agreement between the Registrant and Hospira Worldwide, Inc., dated as of March 26, 2009.
10.32(20)	Consulting Agreement dated June 12, 2009, by and between the Registrant and Danerius, LLC.
10.33(21)	Separation Agreement and Release dated June 26, 2009, by and between the Registrant and Richard E. Gammans, Ph.D.

Table of Contents

Exhibit Number	Description
10.34(22)	Separation Agreement and Release dated July 12, 2009, by and between Registrant and Michael Kalafer, M.D.
10.35(24)	First Amendment to Consulting Agreement dated September 23, 2009, by and between Registrant and Danerius, LLC.
10.36	Form of Contingent Payment Rights Agreement by and among Registrant, Avigen, Inc. and American Stock Transfer and Trust Company, LLC (attached as Annex B to the joint proxy statement/prospectus contained in this registration statement).
10.37	Form of Trust Agreement by and between Registrant and American Stock Transfer and Trust Company, LLC (attached as Annex D to the joint proxy statement/prospectus contained in this registration statement).
10.38	Form of Escrow Agreement by and between Registrant and American Stock Transfer and Trust Company, LLC (attached as Annex E to the joint proxy statement/prospectus contained in this registration statement).
21.1(23)	List of Subsidiaries.
23.1	Consent of Ernst & Young LLP.
23.2(26)	Consent of Odenberg, Ullakko, Muranishi & Co. LLP, Independent Registered Public Accounting Firm.
23.3(26)	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.
23.4(23)	Consent of Dechert LLP (included in Exhibit 5.1).
23.5	Consent of Dechert LLP (included in Exhibit 8.1).
23.6	Consent of Cooley Godward Kronish LLP (included in Exhibit 8.2).
24.1(23)	Power of Attorney (included in the signature pages hereto).
25.1(23)	Statement of Eligibility of Trustee on Form T-1.
99.1(23)	Form of Proxy Card of MediciNova, Inc.
99.2(23)	Form of Proxy Card of Avigen, Inc.
99.3(25)	Consent of Ladenburg, Thalmann & Co. Inc.
99.4(25)	Consent of RBC Capital Markets Corporation.
99.5(26)	Consideration Election Form.

(1) Filed with the Registrant s Registration Statement on Form S-1 filed October 1, 2004 and incorporated herein by reference.

(2) Filed with the Registrant s Amendment to Registration Statement on Form S-1/A filed November 24, 2004 and incorporated herein by reference.

(3) Filed with the Registrant s Amendment to Registration Statement on Form S-1/A filed January 6, 2005 and incorporated herein by reference.

(4) Filed with the Registrant s Quarterly Report on Form 10-Q filed May 12, 2005 and incorporated herein by reference.

(5) Filed with the Registrant s Registration Statement on Form S-1 filed on September 1, 2005 and incorporated herein by reference.

(6) Filed with the Registrant s Current Report on Form 8-K filed November 2, 2006 and incorporated herein by reference.

(7) Filed with the Registrant s Current Report on Form 8-K filed April 4, 2007 and incorporated herein by reference.

Table of Contents

(8) Filed with the Registrant s Current Report on Form 8-K filed September 14, 2007 and incorporated herein by reference.

(9) Filed with the Registrant s Current Report on Form 8-K filed February 4, 2008 and incorporated herein by reference.

(10) Filed with the Registrant s Annual Report on Form 10-K filed February 15, 2007 and incorporated herein by reference.

(11) Filed with the Registrant s Registration Statement on Form 8-A filed November 29, 2006 and incorporated herein by reference.

(12) Filed with the Registrant s Definitive Proxy Statement on Schedule 14A filed March 13, 2007 and incorporated herein by reference.

(13) Filed with the Registrant s Current Report on Form 8-K filed May 1, 2008 and incorporated herein by reference.

(14) Filed with the Registrant s Current Report on Form 8-K filed June 10, 2008 and incorporated herein by reference.

(15) Filed with the Registrant s Current Report on Form 8-K filed July 7, 2008 and incorporated herein by reference.

(16) Filed with the Registrant s Current Report on Form 8-K filed October 8, 2008 and incorporated herein by reference.

(17) Filed with the Registrant s Current Report on Form 8-K filed January 21, 2009 and incorporated herein by reference.

(18) Filed with the Registrant s Current Report on Form 8-K filed March 30, 2009 and incorporated herein by reference.

(19) Filed with the Registrant s Current Report on Form 8-K filed May 29, 2009 and incorporated herein by reference.

(20) Filed with the Registrant s Current Report on Form 8-K filed June 16, 2009 and incorporated herein by reference.

(21) Filed with the Registrant s Current Report on Form 8-K filed July 2, 2009 and incorporated herein by reference.

(22) Filed with the Registrant s Current Report on Form 8-K filed July 16, 2009 and incorporated herein by reference.

(23) Previously filed with the Registrant s Registration Statement on Form S-4 filed September 17, 2009.

(24) Filed with the Registrant s Current Report on Form 8-K filed September 25, 2009 and incorporated herein by reference.

(25) Previously filed with Amendment No. 1 to the Registrant s Registration Statement on Form S-4 filed October 23, 2009.

(26) Previously filed with Amendment No. 2 to the Registrant s Registration Statement on Form S-4 filed November 16, 2009.

Portions of this Exhibit have been omitted pursuant to a grant of confidential treatment by the SEC. Omitted information has been filed separately with the SEC.

* Schedules and exhibits to the agreement have been omitted pursuant to Section 601(b)(2) of Regulation S-K. The Registrant agrees to furnish supplementally a copy of any omitted schedule or exhibit upon the request of the SEC.

Table of Contents

ITEM 22. Undertakings.

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the Calculation of Registration Fee table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) That, prior to any public reoffering of the securities registered hereunder through use of a prospectus which is a part of this registration statement, by any person or party who is deemed to be an underwriter within the meaning of Rule 145(c), the issuer undertakes that such reoffering prospectus will contain the information called for by the applicable registration form with respect to reofferings by persons who may be deemed underwriters, in addition to the information called for by the other Items of the applicable form.

Table of Contents

(c) That every prospectus (i) that is filed pursuant to the paragraph immediately preceding, or (ii) that purports to meet the requirements of Section 10(a)(3) of the Act and is used in connection with an offering of securities subject to Rule 415, will be filed as a part of an amendment to the registration statement and will not be used until such amendment is effective, and that, for purposes of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof

(d) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act of 1933 and is therefore unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933, and will be governed by the final adjudication of such issue.

(e) If and when applicable, the undersigned registrant, hereby undertakes to file an application for the purpose of determining the eligibility of the Trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the Commission under Section 305(b)(2) of the Act.

(f) The undersigned registrant hereby undertakes to respond to requests for information that is incorporated by reference into the prospectus pursuant to Items 4, 10(b), 11, or 13 of this Form, within one business day of receipt of such request, and to send the incorporated documents by first class mail or other equally prompt means. This includes information contained in documents filed subsequent to the effective date of the registration statement through the date of responding to the request.

(g) The undersigned registrant hereby undertakes to supply by means of a post-effective amendment all information concerning a transaction, and the company being acquired involved therein, that was not the subject of and included in the registration statement when it became effective.

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on November 18, 2009.

MEDICINOVA, INC.

By: /s/ YUICHI IWAKI
Name: Yuichi Iwaki, M.D., Ph.D.
Title: President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ YUICHI IWAKI **Yuichi Iwaki, M.D., Ph.D.**	Director, President and Chief Executive Officer *(Principal Executive Officer)*	November 18, 2009
/s/ SHINTARO ASAKO **Shintaro Asako, CPA**	Vice President, Chief Financial Officer *(Principal Financial and Accounting Officer)*	November 18, 2009
* **Alan Dunton, M.D.**	Director	November 18, 2009
* **Jeff Himawan, Ph.D.**	Director	November 18, 2009
* **Arlene Morris**	Director	November 18, 2009
* **Hideki Nagao**	Director	November 18, 2009
* **John K.A. Prendergast, Ph.D.**	Director	November 18, 2009

By: /s/ SHINTARO ASAKO
Shintaro Asako, CPA
Attorney-in-Fact