ARBIOS SYSTEMS INC
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PROSPECTUS

ARBIOS SYSTEMS, INC.

17,583,539 Shares of Common Stock

This prospectus relates to (i) the sale or other disposition of up to 7,478,462 shares of our currently outstanding shares of common stock that are owned by some of our stockholders, (ii) 8,055,077 shares of our common stock issuable upon the exercise of currently outstanding common stock purchase warrants held by some of our stockholders, and (iii) 2,050,000 shares of our common stock owned by Jacek Rozga, M.D., Ph.D, our co-founder and Chief Scientific Officer, that we are contractually obligated to include in this prospectus. For a list of the selling stockholders, please refer to the "Selling Stockholders" section of this prospectus. We are not selling any shares of common stock in this offering and therefore will not receive any proceeds from this offering. We will, however, receive the exercise price of the warrants if and when those warrants are exercised by the selling stockholders. None of the warrants have been exercised as of the date of this prospectus. We will pay the expenses of registering these shares.

Our common stock is traded in the over-the-counter market and is quoted on the OTC Bulletin Board under the symbol ABOS. On April 18, 2008 the closing price of our common stock was $0.29, per share.

The shares included in this prospectus may be disposed of on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. We will not control or determine the price at which a selling stockholder decides to sell or otherwise dispose of its shares. Brokers or dealers effecting transactions in these shares should confirm that the shares are registered under applicable state law or that an exemption from registration is available.

You should understand the risks associated with investing in our common stock. Before making an investment, please read the "Risk Factors" section of this prospectus, which begins on page 4.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of the prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is May 13, 2008.

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PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus; it does not contain all of the information you should consider before investing in our common stock. Read the entire prospectus before making an investment decision.

Throughout this prospectus, the terms "we," "us," "our," and "our company" refer to Arbios Systems, Inc., a Delaware corporation.

A glossary of certain terms used in this prospectus is contained on page 37 under "Glossary of Terms."

Company Overview

Arbios Systems, Inc., or Arbios, is a Delaware corporation with its corporate office in Waltham, Massachusetts, research facility in Medford, Massachusetts, and accounting and administrative office in Pasadena, California. We seek to develop, manufacture and market liver assist therapies to meet the urgent need for medical treatment of liver failure.

We are a medical device and cell-therapy company that is focusing on the development of product candidates for the treatment of liver failure. Our lead product candidates under development currently consist of a novel extracorporeal blood purification therapy called the SEPET™ Liver Assist Device and an extracorporeal, bioartificial liver therapy referred to as the HepatAssist™ Cell-Based Liver Support System which incorporates porcine pig liver cells. We have postponed further clinical development of our HepatAssist™ program until we secure additional funding or a corporate partner for this program. In addition to the five patents and six patent applications acquired on March 29, 2007 from Immunocept, LLC, we currently own four United States and five foreign patents on our liver support product candidates, have two patent applications pending, and are the licensee of twelve additional liver support patents.

SEPET™ Liver Assist Device. In September 2007, we announced the results of our 15-patient feasibility clinical study of our SEPET™ Liver Assist Device, targeted for the treatment of acute episodes of chronic liver disease, in which 79% of the 14 treated patients met the primary clinical effectiveness endpoint. Based on the results of the feasibility study, in February 2008, the U.S. Food and Drug Administration, or FDA, granted us conditional approval of an Investigational Device Exemption, or IDE, application to begin the pivotal clinical trial for SEPET™ while we respond to the FDA's conditions and request for additional information. After discussions with FDA, we submitted a revised trial design to the FDA and in May 2008 the FDA granted us approval of an IDE to begin the pivotal trial for SEPET™. The revised trial design has co-primary endpoints of (i) a two-stage drop in hepatic encephalopathy, or HE, and (ii) the 30-day transplant free survival in patients who reach a two-stage drop in HE. We expect to enroll an aggregate of 121 patients in the first two stages of this trial and we expect to initiate the first segment of this trial by the end of the second quarter of 2008.

We further intend to use our clinical data to support the marketing authorization process in the European Union to receive CE Marking for our SEPET™ Liver Assist Device. We have engaged a notified body, British Standards Institute, to assist us in our efforts to obtain a CE Mark for the device, which is a sterile, disposable cartridge with proprietary membrane permeability characteristics for use in treating patients with liver failure. CE Marking indicates that the product complies with the essential requirements of the relevant European health, safety and environmental protection legislation and allows sale of the product within the European Union (28 countries) and the European Free Trade Association (3 countries).

We hope to raise additional funds to support the development of the CE Marking and the planned Phase III pivotal trial for SEPET™ during 2008. We hope to commence the first segment of the pivotal trial in Rostock, Germany during

the first half of 2008 once we determine a suitable primary endpoint. We anticipate that the current cash and cash equivalents are only sufficient to fund operations through part of the third quarter of 2008, and a significant capital raise is necessary in order to continue operations and planned project including the pivotal trial.

HepatAssist™ Cell-Based Liver Support System. Our HepatAssist™ Cell-Based Liver Support System is an enhanced version of a product system which we acquired in 2004 from Circe Biomedical, Inc., which had tested HepatAssist™ in an unsuccessful Phase II/III pivotal clinical trial. We currently hold a Phase III investigational new drug application, or IND, for conducting an additional pivotal clinical trial of the HepatAssist™ system. Our current plan is to focus on reintroducing this important liver assist technology into clinical development in the United States and in Asia to the extent that we obtain additional funding for this program from a potential corporate marketing partner or a significant capital raise.

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Company History. Arbios Systems, Inc. was originally incorporated in February 1999 as Historical Autographs U.S.A., Inc., or HAUSA. Until October 2003, HAUSA was an e-commerce based company engaged in the business of acquiring and marketing historical documents. On October 30, 2003, HAUSA completed a reorganization (the "Reorganization") in which HAUSA, through its wholly-owned subsidiary, acquired all of the outstanding shares of Arbios Technologies, Inc., or ATI, the holder of the SEPET™ technology, in exchange for 11,930,598 shares of HAUSA common stock. As a result of the Reorganization, ATI became the wholly-owned subsidiary of HAUSA. After the Reorganization, HAUSA, changed its name to "Arbios Systems, Inc.," replaced its officers and directors with those of ATI, ceased its e-commerce business, and moved its offices to Los Angeles, California. In April 2004, Arbios Systems, Inc. purchased assets of Circe Biomedical, Inc. related to bioartificial liver devices. On July 25, 2005, Arbios Systems, Inc. completed its reincorporation as a Delaware corporation by merging with and into Arbios Systems, Inc., a Delaware corporation. The foregoing merger was approved by the Company's stockholders at the annual meeting of stockholders held on July 7, 2005. In order to consolidate the functions and operations of Arbios Systems, Inc. and ATI, on July 26, 2005, ATI merged into Arbios Systems, Inc. As a result, Arbios Systems, Inc. now owns all of the assets of ATI and all of the operations of the two companies have been consolidated into Arbios Systems, Inc.

Our principal operations and executive offices are located at 1050 Winter Street, Suite 1000, Waltham, Massachusetts 02451 and our telephone number at this office is (781) 839-7292. We have a research facility located at 200 Boston Road, Medford, Massachusetts and also maintain an administrative office at 200 E. Del Mar Blvd., Suite 208, Pasadena, California 91105 and our telephone number at this office is (626) 356-3105. We also maintain a web site at *www.arbios.com*. The information on our web site is not, and you should not consider such information to be, a part of this filing.

Shares Being Offered

On April 23, 2007, we entered into a purchase agreement with several current and new accredited investors. Pursuant to the terms and subject to the conditions contained in the purchase agreement, we issued and sold to the investors in a private placement, 3,739,231 Units for an aggregate purchase price of $4,861,000. Each Unit was sold at a price of $1.30 per Unit. Each Unit consists of: (i) two shares of our common stock, (ii) one warrant to purchase one share of our common stock exercisable for a period of 2.5 years at an exercise price of $1.00 ("A Warrants") and (iii) one warrant to purchase one share of the Company's common stock exercisable for a period of 5 years at an exercise price of $1.40 ("B Warrants"), comprising a total of 7,478,462 shares of our common stock and warrants to purchase 7,478,462 shares of our common stock. The warrants have no provision for cashless exercise and, subject to certain requirements, may be called by us provided that our common stock trades above $1.50 for the A Warrants and above $2.80 for the B Warrants for a specified time period.

In addition to the shares of our common stock sold in the private placement and shares issuable upon exercise of warrants sold in the private placement, we are registering 346,615 shares of our common stock issuable upon exercise of warrants to David B. Musket and 230,000 shares of our common stock issuable upon exercise of warrants to Richard Wehby. Such warrants were issued to Mr. Musket and Mr. Wehby as compensation for the placement agent services provided by Musket Research Associates, Inc. in connection with the private placement.

In addition, we are registering 2,050,000 shares of our common stock owned by Jacek Rozga, M.D., Ph.D., our co-founder and Chief Scientific Officer, that we are contractually obligated to include in this prospectus.

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The Offering

Common stock covered hereby	17,583,539 shares, consisting of (i) 7,478,462 outstanding shares owned by selling stockholders, (ii) 8,055,077 shares issuable to selling stockholders upon exercise of outstanding warrants and (iii) 2,050,000 shares of our common stock owned by Jacek Rozga, M.D., Ph.D, our co-founder and Chief Scientific Officer.
Common stock currently outstanding	25,603,461 shares (1)
Common stock to be outstanding assuming the sale of all shares covered hereby and assuming no exercise of the warrants for the shares covered by this prospectus	25,603,461 shares (1)
Common stock to be outstanding assuming the sale of all shares covered hereby and assuming the exercise of all warrants for the shares covered by this prospectus	33,658,538 shares (1)
OTC Bulletin Board Trading Symbol	ABOS
Risk Factors	An investment in our common stock involves significant risks. See “Risk Factors” beginning on page 4.

(1) In addition to these outstanding shares of common stock, as of April 18, 2008, there were outstanding (i) options to purchase 3,115,677 shares of our common stock (with exercise prices ranging from $0.15 per share to $3.40 per share), and (ii) warrants (other than the warrants owned by the selling stockholders covered by this prospectus) to purchase 9,097,079 shares of our common stock (with exercise prices ranging from $0.65 per share to $3.50 per share).

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RISK FACTORS

An investment in our common stock involves a high degree of risk. You should carefully consider the risks described below and the other information contained in this prospectus and in the documents incorporated by reference before deciding to invest in our company. If any of the following risks actually occur, our business, financial condition or operating results and the trading price or value of our securities could be materially adversely affected.

Risks Related to Our Business

We are an early-stage company subject to all of the risks and uncertainties of a new business, including the risk that we may never market any products or generate revenues.

We are an early-stage company that has not generated any operating revenues to date (our only revenues were derived from two government research grants). Accordingly, while we have been in existence since February 1999, and ATI, our operating subsidiary, has been in existence since 2000, we should be evaluated as an early-stage company, subject to all of the risks and uncertainties normally associated with an early-stage company. As an early-stage company, we expect to incur significant operating losses for the foreseeable future, and there can be no assurance that we will be able to validate and market products in the future that will generate revenues or that any revenues generated will be sufficient for us to become profitable or thereafter maintain profitability.

Our ability to continue as a going concern is dependent on future financing.

Our independent registered public accounting firm, has included an explanatory paragraph in its report on our financial statements for the fiscal year ended December 31, 2007, which expresses substantial doubt about our ability to continue as a going concern. The inclusion of a going concern explanatory paragraph in our accountant's report on our financial statements could have a detrimental effect on our stock price and our ability to raise additional capital.

Our financial statements have been prepared on the basis of a going concern, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. We have not made any adjustments to the financial statements as a result of the outcome of the uncertainty described above. Accordingly, our value in liquidation may be different from the amounts set forth in our financial statements.

Our continued success will depend on our ability to continue to raise capital in order to fund the development and commercialization of our product candidates. Failure to raise additional capital may result in substantial adverse circumstances, including our inability to continue the development of our product candidates and our liquidation.

We need to obtain significant additional capital to complete the development of our liver assist devices and meet contractual obligations related to our licensed patents, which additional funding may dilute our existing stockholders.

Based on our current proposed plans and assumptions, we estimate that we do not have cash to operate for the next 12 months, and therefore we will need to obtain significant additional funds during the first half of 2008. The clinical development expenses of our product candidates will be very substantial. Based on our current assumptions, we estimate that the clinical cost of developing the SEPET™ liver assist device will be approximately $5 million to $10 million, and the clinical cost of developing the HepatAssist™ cell-based liver support system will be between $10 million and $15 million, in excess of the cost of our basic operations. These amounts, which could vary substantially if our assumptions are not correct and we need to enroll significantly more patients in our trials, are well in excess of the amount of cash that we currently have available to us. Accordingly, we will be required to (i) obtain additional debt or equity financing in order to fund the further development of our product candidates and working capital needs, and/or (ii) enter into a strategic alliance with a larger pharmaceutical or medical device company to provide its

required funding. The amount of funding needed to complete the development of one or both of our product candidates will be very substantial and may be in excess of our ability to raise capital.

As a result of a decrease in our available financial resources, we have significantly curtailed the research, product development, preclinical testing and clinical trials of certain product candidates. The amount and timing of our future capital requirements will depend on numerous factors, including the timing of resuming our research and development programs, if at all, the number and characteristics of product candidates that we pursue, the conduct of preclinical tests and clinical studies, the status and timelines of regulatory submissions, the costs associated with protecting patents and other proprietary rights, the ability to complete strategic collaborations and the availability of third-party funding, if any.

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We have not yet identified the sources for the additional financing that we will require, and we do not have commitments from any third parties to provide this financing. There can be no assurance that sufficient funding will be available to us at acceptable terms or at all. If we are unable to obtain sufficient financing on a timely basis, the development of our product candidates could be delayed and we could be forced to reduce the scope of our pre-clinical studies and clinical trials or otherwise limit or terminate our operations altogether. Any equity additional funding that we obtain will reduce the percentage ownership held by our existing security holders.

The cost of conducting clinical trials of HepatAssist™ and SEPET™ exceeds our current financial resources. Accordingly, we will not be able to conduct such studies until we obtain additional funding.

The feasibility clinical trial for the SEPET™ Liver Assist Device has been completed and we have obtained approval from the FDA to initiate the pivotal trial of SEPET™; however, we must raise additional funds to support the further development of SEPET™. We have not yet established with the FDA the nature and number of additional clinical trials that the FDA may require in connection with its review and approval of the SEPET™ liver assist device. Based on our internal projections of our operating costs and the costs normally associated with pivotal trials, we do not believe that we currently have sufficient funds to conduct any such pivotal trial(s) but are attempting to identify sources for obtaining the required funds.

We have considered requesting FDA approval of a revised Phase III clinical trial for the HepatAssist™ Cell-Based Liver Support System. Such a request will require that we supplement and/or amend the existing Phase III clinical protocol that was approved by the FDA for the original HepatAssist™ system. The preparation of a modified or supplemented Phase III clinical protocol will be expensive and difficult to prepare. Although the cost of completing the Phase III clinical trial in the manner that we currently contemplate is uncertain and could vary significantly, if that Phase III clinical trial is authorized by the FDA, we currently estimate that the cost of conducting the trial would approximately be between $10 million and $15 million, excluding the manufacturing infrastructure. We currently do not have sufficient funds to conduct this trial and have not identified any sources for obtaining the required funds. In addition, no assurance can be given that the FDA will accept our proposed changes to the previously approved Phase III clinical protocol. The clinical tests that we would conduct under any FDA-approved protocol are very expensive and will cost much more than our current financial resources. Accordingly, even if the FDA approves the modified Phase III clinical protocol that we submit for HepatAssist™ cell-based liver support system, we will not be able to conduct any clinical trials until we raise substantial amounts of additional financing.

Our capital needs beyond 2008 will depend on many factors, including our research and development activities and the success thereof, the scope of our clinical trial program, the timing of regulatory approval for our product candidates under development and the successful commercialization of our product candidates. Our needs may also depend on the magnitude and scope of the activities, the progress and the level of success in our clinical trials, the costs of preparing, filing, prosecuting, maintaining and enforcing patent claims and other intellectual property rights, competing technological and market developments, changes in or terminations of existing collaboration and licensing arrangements, the establishment of new collaboration and licensing arrangements and the cost of manufacturing scale-up and development of marketing activities, if undertaken by us. We currently do not have committed external sources of funding and may not be able to secure additional funding on any terms or on terms that are favorable to us. If we raise additional funds by issuing additional stock, further dilution to our existing stockholders will result, and new investors may negotiate for rights superior to existing stockholders. If adequate funds are not available, we may be required to:

- delay, reduce the scope of or eliminate one or more of our development programs;
- obtain funds through arrangements with collaboration partners or others that may require us to relinquish rights to some or all of our technologies, product candidates or products that we would otherwise seek to develop or

commercialize ourselves;

· license rights to technologies, product candidates or products on terms that are less favorable to us than might otherwise be available;

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- seek a buyer for all or a portion of our business; or
- wind down our operations and liquidate our assets on terms that are unfavorable to us.

We have had no product sales to date, and we can give no assurance that there will ever be any sales in the future.

All of our product candidates are still in research or development, and no revenues have been generated to date from product sales. There is no guarantee that we will ever develop commercially viable products. To become profitable, we will have to successfully develop, obtain regulatory approval for, produce, market and sell our product candidates. There can be no assurance that our product development efforts will be successfully completed, that we will be able to obtain all required regulatory approvals, that we will be able to manufacture our products at an acceptable cost and with acceptable quality, or that our products can be successfully marketed in the future. We currently do not expect to receive revenues from the sale of any of our product candidates for another year or longer. We have postponed further clinical development of our HepatAssist™ program until we are able to secure additional funding for this project or a corporate partner for this program.

Before we can market any of our product candidates, we must obtain governmental approval for each of our product candidates, the application and receipt of which is time-consuming, costly and uncertain.

The development, production and marketing of our product candidates are subject to extensive regulation by government authorities in the United States and other countries. In the United States, our SEPET™ Liver Assist Device and our HepatAssist™ Cell-Based Liver Support System will require approval from the FDA to allow clinical testing and ultimately commercialization. The process for obtaining FDA approval to market therapeutic products is both time-consuming and costly, with no certainty of a successful outcome. This process includes the conduct of extensive pre-clinical and clinical testing, which may take longer or cost more than we currently anticipate due to numerous factors, including, without limitation, difficulty in securing centers to conduct trials, difficulty in enrolling patients in conformity with required protocols and/or projected timelines, unexpected adverse reactions by patients in the trials to our liver assist systems, temporary suspension and/or complete ban on trials of our product candidates due to the risk of transmitting pathogens from the xenogeneic biologic component, and changes in the FDA's requirements for our testing during the course of that testing. We have not yet established with the FDA the nature and number of clinical trials that the FDA will require in connection with its review and approval of either SEPET™ or our HepatAssist™ product candidates and these requirements may be more costly or time-consuming than we currently anticipate. If we are required to increase the number of patients that we must enroll in our trials or conduct additional clinical trials, the cost of developing SEPET™ may be significantly increased. This could negatively impact our ability to raise additional capital and could delay the potential commercialization of SEPET™ in the United States and abroad.

SEPET™ and HepatAssist™ are both novel in terms of their composition and function. Thus, we may encounter unexpected safety, efficacy or manufacturing issues as we seek to obtain marketing approval for our product candidates from the FDA, and there can be no assurance that we will be able to obtain approval from the FDA or any foreign governmental agencies for marketing of any of our product candidates. The failure to receive, or any significant delay in receiving, FDA approval, or the imposition of significant limitations on the indicated uses of our product candidates, would have a material adverse effect on our business, operating results and financial condition. The health regulatory authorities of certain countries, including those of Japan, France and the United Kingdom, have previously objected, and other countries' regulatory authorities could potentially object, to the marketing of any therapy that uses pig liver cells (which our bioartificial liver systems are designed to utilize) due to safety concerns that pig cells may transmit viruses or diseases to humans. If the health regulatory agencies of other countries impose a ban on the use of therapies that incorporate pig cells, such as our HepatAssist™ Cell-Based Liver Support System, we would be prevented from marketing this product, if approved, in those countries. If we are unable to obtain the approval of the health regulatory authorities in Japan, France, the United Kingdom or other countries, the potential

market for our product candidates will be reduced.

Because our product candidates are at an early stage of development and have never been marketed, we do not know if any of our product candidates will ever be approved for marketing, and any such approval will take several years to obtain.

Before obtaining regulatory approvals for the commercial sale of our product candidates, significant and potentially very costly preclinical and clinical work will be necessary. There can be no assurance that we will be able to successfully complete all required testing of our SEPET™ or HepatAssist™ product candidates. While the time periods for testing our product candidates and obtaining the FDA's approval are dependent upon many future variable and unpredictable events, we estimate that it could take between two to three years to obtain approval for SEPET™ and approximately three to four years for HepatAssist™. We have not independently confirmed any of the third party claims made with respect to patents, licenses or technologies we have acquired concerning the potential safety or efficacy of these product candidates and technologies. Before we can begin clinical testing of these product candidates, we will need to amend and have the FDA approve the active Phase III IND to resume clinical testing of our HepatAssist™ product candidate. The FDA may require significant revisions to our clinical testing plans or require us to demonstrate efficacy endpoints that are more time-consuming or difficult to achieve than what we currently anticipate. Because of the early stage of development of each of our product candidates, we do not know if we will be able to generate additional clinical data that will support the filing of the FDA applications for these product candidates or the FDA's approval of any product marketing approval applications or biologic license approval application that we do file.

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Our cell-based liver support system utilizes a biological component obtained from pigs that could prevent or restrict the release and use of those product candidates.

Use of liver cells harvested from pig livers carries a risk of transmitting viruses harmless to pigs but potentially deadly to humans. For instance, all pig cells carry genetic material of the porcine endogenous retrovirus, or PERV, but its ability to infect people is still unknown. Repeated testing, including a 1999 study of 160 xenotransplantation (transplantation from animals to humans) patients and the Phase II/III testing of the HepatAssist™ system by Circe Biomedical, Inc., has produced no sign of the transmission of PERV to humans. Still, no one can prove that PERV or another virus would not infect bioartificial liver-treated patients and cause potentially serious disease. This may result in the FDA or other health regulatory agencies not approving our HepatAssist™ Cell-Based Liver Support System or subsequently banning any further use of our product candidate should health concerns arise after the product has been approved. At this time, it is unclear whether we will be able to obtain clinical and product liability insurance that covers the PERV risk.

In addition to the potential health risks associated with the use of pig liver cells, our use of xenotransplantation technologies may be opposed by individuals or organizations on health, religious or ethical grounds. Certain animal rights groups and other organizations are known to protest animal research and development programs or to boycott products resulting from such programs. Previously, some groups have objected to the use of pig liver cells by other companies, including Circe Biomedical, that were developing bioartificial liver support systems, and it is possible that such groups could object to our HepatAssist™ Cell-Based Liver Support System. Litigation instituted by any of these organizations, and negative publicity regarding our use of pig liver cells in a bioartificial liver device, could have a material adverse effect on our business, operating results and financial condition.

Because our product candidates represent new approaches to treatment of liver disease, there are many uncertainties regarding the development, the market acceptance and the commercial potential of our product candidates.

Our product candidates represent new therapeutic approaches for disease conditions. We may, as a result, encounter delays as compared to other product candidates under development in reaching agreements with the FDA or other applicable governmental agencies as to the development plans and data that will be required to obtain marketing approvals from these agencies. There can be no assurance that these approaches will gain acceptance among doctors or patients or that governmental or third-party medical reimbursement payers will be willing to provide reimbursement coverage for our product candidates, if approved. Moreover, we do not have the marketing data resources possessed by the major pharmaceutical companies, and we have not independently verified the potential size of the commercial markets for any of our product candidates. Since our product candidates represent new approaches to treating liver diseases, it may be difficult, in any event, to accurately estimate the potential revenues from our product candidates, as there currently are no directly comparable products being marketed.

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As a new small company that will be competing against numerous large, established companies that have substantially greater financial, technical, manufacturing, marketing, distribution and other resources than us, we will be at a competitive disadvantage.

The pharmaceutical, medical device and biotechnology industries are characterized by intense competition and rapid and significant technological advancements. Many companies, research institutions and universities are working in a number of areas similar to our primary fields of interest to develop new products, some of which may be similar and/or competitive to our product candidates. Furthermore, many companies are engaged in the development of medical devices or products that are or will be competitive with our proposed products. Most of the companies with which we compete have substantially greater financial, technical, manufacturing, marketing, distribution and other resources than us.

We will need to outsource and rely on third parties for the clinical development and manufacture, supply and marketing of our product candidates.

Our business model calls for the outsourcing of the clinical development, manufacturing, supply and marketing of our product candidates, if approved, in order to reduce our capital and infrastructure costs as a means of potentially improving the profitability of these product candidates for us. We have not yet entered into any strategic alliances or other licensing arrangements and there can be no assurance that we will be able to enter into satisfactory arrangements for these services or marketing of our product candidates. We will be required to expend substantial amounts to retain and continue to utilize the services of one or more clinical research management organizations without any assurance that the product candidates covered by the clinical trials conducted under their management ultimately will generate any revenues for SEPET™ and/or HepatAssist™. Consistent with our business model, we will seek to enter into strategic alliances with other larger companies to market and sell our product candidates. In addition, we plan to utilize contract manufacturers to manufacture our product candidates or even our commercial supplies, and we may contract with independent sales and marketing firms to use their pharmaceutical or medical device sales force on a contract basis.

To the extent that we rely on other companies or institutions to manage the conduct of our clinical trials and to manufacture or market our product candidates, we will be dependent on the timeliness and effectiveness of their efforts. If the clinical research management organization that we utilize is unable to allocate sufficient qualified personnel to our studies or if the work performed by them does not fully satisfy the rigorous requirement of the FDA, we may encounter substantial delays and increased costs in completing our clinical trials. If the manufacturers of the raw material and finished product for our clinical trials are unable to meet our time schedules, quality specifications or cost parameters, the timing of our clinical trials and development of our product candidates may be adversely affected. Any manufacturer or supplier that we select, including Membrana and NxStage, may encounter difficulties in scaling-up the manufacture of new products in commercial quantities, including problems involving product yields, product stability or shelf life, quality control, adequacy of control procedures and policies, compliance with FDA regulations and the need for further FDA approval of any new manufacturing processes and facilities. Should any of our manufacturing or marketing companies, including Membrana and NxStage, encounter regulatory problems with the FDA, FDA approval of our product candidates could be delayed or the marketing of our product candidates, if approved, could be suspended or otherwise adversely affected.

Because we are currently dependent on NxStage and Membrana as the manufacturers of our SEPET™ cartridges, any failure or delay by either NxStage or Membrana. to manufacture the cartridges will negatively affect our future operations.

We have exclusive manufacturing and/or supply arrangements both with NxStage and Membrana. If NxStage or Membrana is unable to meet its contractual obligations to us, we may have difficulty in finding a replacement manufacturer/supplier if we are unable to effectively transfer the NxStage or Membrana know-how to another

manufacturer. We have no control over NxStage, Membrana or their suppliers, and if NxStage or Membrana are unable to produce the SEPET™ cartridges or it's components on a timely basis, our business may be adversely affected.

We currently do not have a manufacturing arrangement for the cartridges used in the HepatAssist™ Cell-Based Liver Support System. While we believe there are several potential contract manufacturers who can produce these cartridges, there can be no assurance that we will be able to enter into such an arrangement on commercially favorable terms, or at all.

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Because we are dependent on Medtronic, Inc. for the perfusion platform used in our HepatAssist™, any failure or delay by Medtronic to make the perfusion platform commercially available will negatively affect our future operations.

We currently expect that a perfusion system known as the PERFORMER will become the preferred platform for our HepatAssist™ system. The PERFORMER has been equipped with proprietary software and our tubing in order to enable the machine to work with our bioartificial liver product candidate. A limited number of the PERFORMER units have been manufactured to date. The PERFORMER is being manufactured by RanD, S.r.l. (Italy) and marketed by Medtronic, Inc. We currently do not have an agreement to purchase the PERFORMER from Medtronic or any other source. In the event that RanD and Medtronic are either unable or unwilling to manufacture the number of PERFORMERS needed to ensure that HepatAssist™ is commercially viable, we would not have an alternate platform immediately available for use, and the development and sales of such a system would cease until an alternate platform is developed or found. We may have difficulty in finding a replacement platform and may be required to develop a new platform in collaboration with a third party contract manufacturer. While we believe there are several potential contract manufacturers who can develop and manufacture perfusion platforms meeting the HepatAssist™ functional and operational characteristics, there can be no assurance that we will be able to enter into such an arrangement on commercially favorable terms, or at all. In addition, we may encounter substantial delays and increased costs in completing our clinical trials if we have difficulty in finding a replacement platform or if we are required to develop a new platform for bioartificial liver use.

We may not have sufficient legal protection of our proprietary rights, which could result in the use of our intellectual properties by our competitors.

Our ability to compete successfully will depend, in part, on our ability to defend patents that have issued, obtain new patents, protect trade secrets and operate without infringing the proprietary rights of others. In addition to the patents acquired on March 29, 2007, we currently own four U.S. and five foreign patents on our liver support product candidates, have two patent applications pending, and are the licensee of twelve additional liver support patents. We have relied substantially on the patent legal work that was performed for our assignors and licensors and investors with respect to all of these patents, application and licenses, and have not independently fully verified the validity or any other aspects of the patents or patent applications covering our product candidates with our own patent counsel. For example, we had received from the European Patent Office an initial rejection of a patent filing citing references to certain issued patents that may represent prior art in the field of large-pore hemofiltration. This and potential other prior art may prevent us from obtaining sufficient legal protection of our proprietary rights to SEPET™. We will need to raise an aggregate of $5.2 million during 2008 in order to maintain the license to the Immunocept patent portfolio that was acquired on March 29, 2007, and there is a possibility that the license may revert to a non-exclusive basis if we are unsuccessful in raising these funds..

Even when we have obtained patent protection for our product candidates, there is no guarantee that the coverage of these patents will be sufficiently broad to protect us from competitors or that we will be able to enforce our patents against potential infringers. Patent litigation is expensive, and we may not be able to afford the costs. Third parties could also assert that our product candidates infringe patents or other proprietary rights held by them.

We attempt to protect our proprietary information as trade secrets through nondisclosure agreements with each of our employees, licensing partners, consultants, agents and other organizations to which we disclose our proprietary information. There can be no assurance, however, that these agreements will provide effective protection for our proprietary information in the event of unauthorized use of disclosure of such information.

The development of our product candidates is dependent upon certain key persons, and the loss of one or more of these key persons would materially and adversely affect our business and prospects.

We are dependent upon our business and scientific personnel. Due to our limited financial resources, we have recently reduced our staffing levels and currently have limited personnel to run our operations. As a result of our limited staff, we also depend upon the medical and scientific advisory services that we receive from the members of our Board of Directors and Scientific Advisory Board, many of whom have extensive backgrounds in the biomedical industry. We do not carry key man life insurance on any of these individuals.

As we expand the scope of our operations by preparing FDA submissions, conducting multiple clinical trials, and potentially acquiring related technologies, we will need to obtain the services of additional senior scientific and management personnel and we are actively searching for a CEO. Competition for these personnel is intense, and there can be no assurance that we will be able to attract or retain qualified senior personnel. As we retain senior personnel, our overhead expenses for salaries and related items will increase substantially from current levels.

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The market success of our product candidates will be dependent in part upon third-party reimbursement policies that have not yet been established.

Our ability to successfully penetrate the market for our product candidates, if approved, may depend significantly on the availability of reimbursement for our product candidates from third-party payers, such as governmental programs, private insurance and private health plans. We have not yet established with Medicare or any third-party payers what level of reimbursement, if any, will be available for our product candidates, and we cannot predict whether levels of reimbursement for our product candidates, if any, will be high enough to allow us to charge a reasonable profit margin. Even with FDA approval, third-party payers may deny reimbursement if the payer determines that our particular new products are unnecessary, inappropriate or not cost effective. If patients are not entitled to receive reimbursement similar to reimbursement for competing products, they may be unwilling to use our product candidates since they will have to pay for the un-reimbursed amounts, which may well be substantial. The reimbursement status of newly approved health care products is highly uncertain. If levels of reimbursement are decreased in the future, the demand for our product candidates could diminish or our ability to sell our product candidates on a profitable basis could be adversely affected.

We may be subject to product liability claims that could have a material negative effect on our operations and on our financial condition.

The development, manufacture and sale of medical products expose us to the risk of significant damages from product liability claims. We have obtained clinical trial insurance for our SEPET™ trials. We plan to obtain and maintain product liability insurance for coverage of our clinical trial activities. However, there can be no assurance that we will be able to continue to secure such insurance for clinical trials for either of our two current product candidates. If our product candidates are approved, we intend to obtain coverage for them when they enter the marketplace (as well as requiring the manufacturers of our product candidates to maintain insurance). We do not know if coverage will be available to us at acceptable costs or at all. We may encounter difficulty in obtaining clinical trial or commercial product liability insurance for any cell-based liver device that we develop since this therapy includes the use of pig liver cells and we are not aware of any therapy using these cells that has sought or obtained such insurance. If the cost of insurance is too high or insurance is unavailable to us, we will have to self-insure. A successful claim in excess of product liability coverage could have a material adverse effect on our business, financial condition and results of operations. The costs for many forms of liability insurance have risen substantially during the past year, and such costs may continue to increase in the future, which could materially impact our costs for clinical or product liability insurance.

If we are not able to implement the requirements of Section 404 of the Sarbanes-Oxley Act of 2002 in a timely manner or with adequate compliance, we may be unable to provide the required financial information in a timely and reliable manner and may be subject to sanction by regulatory authorities.

We cannot be certain at this time that we will have the expertise and resources to be able to comply with all of our reporting obligations and successfully complete the procedures, certification and attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002 by the time that we are required to do so. If we fail to comply with the requirements of Section 404, or if we or our independent registered public accounting firm identifies any material weaknesses, the accuracy and timeliness of the filing of our annual and quarterly reports may be negatively affected and could cause investors to lose confidence in our financial statements, impair our ability to obtain financing or result in regulatory sanctions. Remediation of any material weakness could require additional management attention and increased compliance costs.

If we make any further acquisitions, we will incur a variety of costs and might never successfully integrate the acquired product or business into ours.

Following on our acquisition of the HepatAssist™ system from Circe Biomedical and the patent acquisition in March 2007, we may attempt to acquire products or businesses that we believe are a strategic complement to our business model. We might encounter operating difficulties and expenditures relating to integrating HepatAssist™ or any other acquired product or business. These acquisitions might require significant management attention that would otherwise be available for ongoing development of our business. In addition, we might never realize the anticipated benefits of any acquisition. We might also make dilutive issuances of equity securities, incur debt or experience a decrease in cash available for our operations, incur contingent liabilities and/or amortization expenses relating to goodwill and other intangible assets, or incur employee dissatisfaction in connection with future acquisitions.

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If we are unable to comply with the terms of registration rights agreements to which we are a party, we may be obligated to pay liquidated damages to some of our stockholders and re-characterize outstanding warrants as debt.

We are a party to registration rights agreements with some of our stockholders. The registration rights agreements provide, among other things, that we register shares of our common stock held by those stockholders within a specified period of time and that we keep the registration statement associated with those shares continuously effective. If we are unable to comply with these provisions of the registration rights agreements, we may be obligated to pay those stockholders liquidated damages. Because of the potential operation of the provisions of our registration rights agreements, we may have to re-characterize some of our outstanding warrants from equity to debt. If we have to make this re-characterization, our liabilities would increase and our financial statements would be negatively impacted.

Risks Related to Our Common Stock

Our stock is thinly traded, so you may be unable to sell at or near ask prices or at all if you need to sell your shares to raise money or otherwise desire to liquidate your shares.

The shares of our common stock are thinly-traded on the OTC Bulletin Board, meaning that the number of persons interested in purchasing our common shares at or near ask prices at any given time may be relatively small or non-existent. This situation is attributable to a number of factors, including the fact that we are a small company which is relatively unknown to stock analysts, stock brokers, institutional investors and others in the investment community that generate or influence sales volume, and that even if we came to the attention of such persons, they tend to be risk-averse and would be reluctant to follow an unproven, early stage company such as ours or purchase or recommend the purchase of our shares until such time as we became more seasoned and viable. As a consequence, there may be periods of several days or more when trading activity in our shares is minimal or non-existent, as compared to a seasoned issuer which has a large and steady volume of trading activity that will generally support continuous sales without an adverse effect on share price. We cannot give you any assurance that a broader or more active public trading market for our common shares will develop or be sustained, or that current trading levels will be sustained. Due to these conditions, we can give you no assurance that you will be able to sell your shares at or near ask prices or at all if you need money or otherwise desire to liquidate your shares.

If securities or independent industry analysts do not publish research reports about our business, our stock price and trading volume could decline.

Small, relatively unknown companies can achieve visibility in the trading market through research and reports that industry or securities analysts publish. However, to our knowledge, no independent analysts cover our company. The lack of published reports by independent securities analysts could limit the interest in our stock and negatively affect our stock price. We do not have any control over research and reports these analysts publish or whether they will be published at all. If any analyst who does cover us downgrades our stock, our stock price would likely decline. If any independent analyst ceases coverage of our company or fails to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

You may have difficulty selling our shares because they are deemed "penny stocks."

Since our common stock is not listed on the Nasdaq Stock Market, if the trading price of our common stock is below $5.00 per share, trading in our common stock will be subject to the requirements of certain rules promulgated under the Securities Exchange Act of 1934, as amended, or the Exchange Act, which require additional disclosure by broker-dealers in connection with any trades involving a stock defined as a penny stock (generally, any non-Nasdaq equity security that has a market price of less than $5.00 per share, subject to certain exceptions) and a two business

day “cooling off period” before brokers and dealers can effect transactions in penny stocks. Such rules impose various sales practice requirements on broker-dealers who sell penny stocks to persons other than established customers and accredited investors (generally defined as an investor with a net worth in excess of $1,000,000 or annual income exceeding $200,000 individually or $300,000 together with a spouse). For these types of transactions, the broker-dealer must make a special suitability determination for the purchaser and have received the purchaser’s written consent to the transaction prior to the sale. The broker-dealer also must disclose the commissions payable to the broker-dealer, current bid and offer quotations for the penny stock and, if the broker-dealer is the sole market-maker, the broker-dealer must disclose this fact and the broker-dealer’s presumed control over the market. Such information must be provided to the customer orally or in writing before or with the written confirmation of trade sent to the customer. Monthly statements must be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stocks. The additional burdens imposed upon broker-dealers by such requirements could discourage broker-dealers from effecting transactions in our common stock, which could severely limit the market liquidity of the common stock and the ability of holders of the common stock to sell their shares.

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Anti-takeover provisions in our certificate of incorporation could affect the value of our stock.

Our certificate of incorporation contains certain provisions that could be an impediment to a non-negotiated change in control. In particular, without stockholder approval we can issue up to 5,000,000 shares of preferred stock with rights and preferences determined by the Board of Directors. These provisions could make a hostile takeover or other non-negotiated change in control difficult, so that stockholders would not be able to receive a premium for their common stock.

Potential issuance of additional common and preferred stock could dilute existing stockholders.

We are authorized to issue up to 100,000,000 shares of common stock. To the extent of such authorization, our Board of Directors has the ability, without seeking stockholder approval, to issue additional shares of common stock in the future for such consideration as the Board of Directors may consider sufficient. The issuance of additional common stock in the future will reduce the proportionate ownership and voting power of the common stock offered hereby. We are also authorized to issue up to 5,000,000 shares of preferred stock, the rights and preferences of which may be designated in series by the Board of Directors. Such designation of new series of preferred stock may be made without stockholder approval, and could create additional securities which would have dividend and liquidation preferences over the common stock offered hereby. Preferred stockholders could adversely affect the rights of holders of common stock by:

- exercising voting, redemption and conversion rights to the detriment of the holders of common stock;
- receiving preferences over the holders of common stock regarding or surplus funds in the event of our dissolution or liquidation;
- delaying, deferring or preventing a change in control of our company; and
- discouraging bids for our common stock.

Additionally, some of our outstanding warrants to purchase common stock have anti-dilution protection. This means that if we issue securities for a price less than the price at which the warrants are exercisable, the warrants will become eligible to purchase more shares of common stock at a lower price, which will dilute the ownership of our common stockholders.

Substantial number of shares of common stock may be released onto the market at any time, and the sales of such additional shares of common stock could cause stock price to fall.

As of April 18, 2008, we had outstanding 25,603,461 shares of common stock. However, in the past year, the average daily trading volume of our shares has only been a few thousand shares, and there have been many days in which no shares were traded at all. As of April 18, 2008, there were a total of 16,777,156 shares of our common stock issuable upon the exercise of outstanding warrants registered pursuant to registration statements under the Securities Act of 1933, as amended, or the Securities Act, including the registration statement of which this prospectus forms a part. The shares underlying the warrants have not yet been issued and will not be issued until the warrants are exercised. Since the shares underlying these warrants have been registered, they can be sold immediately following exercise of the warrants, assuming the registration statements pursuant to which they are registered are effective. Accordingly, 16,777,156 additional shares could be released onto the trading market at any time. Because of the limited trading volume, the sudden release of 16,777,156 additional freely trading shares onto the market, or the perception that such shares will come onto the market, could have an adverse affect on the trading price of the stock. In addition, there are currently 4,550,000 shares of unregistered, restricted stock that are currently eligible for public resale under Rule 144

promulgated under the Securities Act, some of which shares also may be offered and sold on the market from time to time and an additional 3,465,677 shares that are issuable upon the exercise of outstanding options and other warrants for which the shares issuable upon the exercise thereof are not registered. No prediction can be made as to the effect, if any, that sales of the 16,777,156 registered warrant shares, or the sale of any of the 4,550,000 shares subject to Rule 144 sales or the 3,465,677 shares that are issuable upon the exercise of outstanding options and other warrants will have on the market prices prevailing from time to time. Nevertheless, the possibility that substantial amounts of common stock may be sold in the public market may adversely affect prevailing market prices for our common stock and could impair our ability to raise capital through the sale of our equity securities.

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The market price of our stock may be adversely affected by market volatility.

The market price of our common stock is likely to be volatile and could fluctuate widely in response to many factors, including:

- announcements of the results of clinical trials by us or our competitors;
- developments with respect to patents or proprietary rights;
- announcements of technological innovations by us or our competitors;
- announcements of changes in the regulations applicable to us,
- announcements of new products or new contracts by us or our competitors;
- actual or anticipated variations in our operating results due to the level of development expenses and other factors;
- changes in financial estimates by securities analysts and whether our earnings meet or exceed such estimates;
- conditions and trends in the pharmaceutical, medical device and other industries;
- new accounting standards;
- general economic, political and market conditions and other factors; and
- the occurrence of any of the risks described in this prospectus.

FORWARD-LOOKING STATEMENTS

The Private Securities Litigation Reform Act of 1995 provides a “safe harbor” for forward-looking statements. This document contains forward-looking statements, which reflect the views of our management with respect to future events and financial performance. These forward-looking statements are subject to a number of uncertainties and other factors that could cause actual results to differ materially from such statements. Forward-looking statements are identified by words such as “anticipates,” “believes,” “estimates,” “expects,” “plans,” “projects,” “targets” and similar expressi Readers are cautioned not to place undue reliance on these forward-looking statements, which are based on the information available to management at this time and which speak only as of this date. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. For a discussion of some of the factors that may cause actual results to differ materially from those suggested by the forward-looking statements, please read carefully the information under “Risk Factors” beginning on page 4.

The identification in this document of factors that may affect future performance and the accuracy of forward-looking statements is meant to be illustrative and by no means exhaustive. All forward-looking statements should be evaluated with the understanding of their inherent uncertainty. You may rely only on the information contained in this prospectus.

We have not authorized anyone to provide information different from that contained in this prospectus. Neither the delivery of this prospectus nor the sale of common stock means that information contained in this prospectus is correct after the date of this prospectus. This prospectus is not an offer to sell or solicitation of an offer to buy these securities in any circumstances under which the offer or solicitation is unlawful.

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USE OF PROCEEDS

We will not receive any proceeds from the sale or other disposition of the common stock covered hereby by the selling stockholders pursuant to this prospectus. However, we may receive the sale price of any common stock we sell to the selling stockholders upon exercise of the warrants. If all warrants included in this prospectus are exercised for cash (and not pursuant to the cashless exercise feature included in the warrants), the total amount of proceeds we would receive is $10,679,576. We expect to use the proceeds we receive from the exercise of warrants, if any, for general working capital purposes. We will pay the expenses of registration of these shares, including legal and accounting fees.

MARKET PRICE OF COMMON STOCK AND OTHER SHAREHOLDER MATTERS

Market Information

Our common stock has been traded on the OTC Bulletin Board over-the-counter market since March 18, 2004 under the symbol “ABOS.OB”. From the Reorganization until March 18, 2004, our common stock was listed on the Pink Sheets over-the-counter electronic trading system under the symbol “ABOS.OB” Prior to the Reorganization on October 30, 2003, our common stock was listed on the Pink Sheets under the symbol “HIAU,” but there was virtually no trading in the common stock.

Our common stock will be offered in amounts, at prices, and on terms to be determined in light of market conditions at the time of sale. The shares may be sold directly by the selling stockholders in the open market at prevailing prices or in individually negotiated transactions, through agents, underwriters, or dealers. We will not control or determine the price at which the shares are sold.

The following table sets forth the range of high and low bid information for our common stock for each quarter within the last two years, as reported by Yahoo Finance and Bigcharts from CBS Marketwatch.com. The following price information reflects inter-dealer prices, without retail mark-up, mark-down or commission and may not represent actual transactions:

Quarter Ending	High	Low
March 31, 2006	$ 1.85	$ 0.65
June 30, 2006	$ 1.25	$ 0.90
September 30, 2006	$ 0.92	$ 0.42
December 31, 2006	$ 0.79	$ 0.46
March 31, 2007	$ 1.10	$ 0.43
June 30, 2007	$ 0.89	$ 0.60
September 30, 2007	$ 0.85	$ 0.29
December 31, 2007	$ 0.75	$ 0.55
March 31, 2008	$ 0.70	$ 0.26
June 30, 2008 (through April 18, 2008)	$ 0.30	$ 0.23

Holders

As of April 18, 2008, there were 125 listed shareholders of record of our common stock, although we believe there may be substantially more shareholders who hold our common stock in street name.

Dividends

We have not paid any dividends on our common stock to date and do not anticipate that we will be paying dividends in the foreseeable future. Any payment of cash dividends on our common stock in the future will be dependent upon the amount of funds legally available, our earnings, if any, our financial condition, our anticipated capital requirements and other factors that the Board of Directors may think are relevant. However, we currently intend for the foreseeable future to follow a policy of retaining all of our earnings, if any, to finance the development and expansion of our business and, therefore, do not expect to pay any dividends on our common stock in the foreseeable future.

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Equity Compensation Plan Information

The following table summarizes as of December 31, 2007, the number of securities to be issued upon the exercise of outstanding derivative securities (options, warrants, and rights); the weighted-average exercise price of the outstanding derivative securities; and the number of securities remaining available for future issuance under our equity compensation plans.

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants, and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders(1)	3,352,495	$ 1.73	1,647,505
Equity compensation plans not approved by security holders	750,000(2)	$ 1.54	-0-
Total	4,102,495(3)	$ 1.69	1,647,505

(1) These plans consist of our 2001 Stock Option Plan and 2005 Stock Incentive Plan.
(2) Represents warrants to purchase shares of our common stock issued to our consultants.
(3) Includes restricted stock grants totaling 421,818 shares of common stock.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Overview

On October 30, 2003, we completed a reorganization, (the "Reorganization") in which we acquired Arbios Technologies, Inc., or ATI, and the SEPET™ program. At the time of the Reorganization, we had virtually no assets and virtually no liabilities (prior to the Reorganization we were an e-commerce based company engaged in the business of acquiring and marketing historical documents). Shortly after the Reorganization, we changed our name to "Arbios Systems, Inc." In the Reorganization, we also replaced our officers and directors with those of ATI. Following the Reorganization, we ceased our e-commerce business, closed our former offices, and moved our offices to Los Angeles, California. In April 2004, we purchased certain assets of Circe Biomedical including a portfolio of patents, rights to a bioartificial liver (HepatAssist™), a Phase III IND, selected equipment, clinical and marketing data, and over 400 standard operating procedures and clinical protocols that have previously been reviewed by the FDA. The purchase price paid for these assets was $450,000, which amount has now been fully paid. In July 2005, we consolidated our corporate structure by merging ATI into our then parent company, Arbios Systems, Inc., creating our current operating structure. We currently do not plan to conduct any business other than the business of developing liver assist devices that Arbios Systems, Inc. has conducted since its organization.

Although we acquired ATI in the Reorganization, for accounting purposes, the Reorganization was accounted for as a reverse merger since the stockholders of ATI acquired a majority of the issued and outstanding shares of our common stock, and the directors and executive officers of ATI became our directors and executive officers. Accordingly, the financial statements contained in this prospectus, and the description of our results of operations and financial condition, reflect (i) the operations of ATI alone prior to the Reorganization, and (ii) the combined results of this company and ATI since the Reorganization. No goodwill was recorded as a result of the Reorganization.

Since the formation of ATI in 2000, our efforts have been principally devoted to research and development activities, raising capital, and recruiting additional scientific and management personnel and advisors. To date, we have not marketed or sold any product and have not generated any revenues from commercial activities, and we do not expect to generate any revenues from commercial activities during the next 12 months. Substantially all of the revenues that we have recognized to date have been Small Business Innovation Research grants (in an aggregate amount of $321,000) that we received from the U.S. Small Business Administration.

In April 2004, we purchased certain assets of Circe Biomedical including a portfolio of patents, rights to a bioartificial liver (HepatAssist™), a Phase III IND, selected equipment, clinical and marketing data, and over 400 standard operating procedures and clinical protocols that have previously been reviewed by the FDA. The purchase price paid for these assets was $450,000.

Our current plan of operations for the next 12 months primarily involves research and development activities, including additional clinical trials for SEPET™ both domestically and internationally, and (i) finalize the design of our planned pivotal trial of SEPET™ with the FDA and commence segment one of the trial by the second half of 2008, (ii) the preparation and submission of applications to a notified body in Europe to secure CE Mark approval to market our SEPET™ Liver Assist Device in Europe, (iii) the completion of an equity or other financing to support operations and the SEPET™ pivotal trial and (iv) identify and recruit a chief executive officer. The actual amounts we may expend on research and development and related activities during the next 12 months may vary significantly depending on numerous factors, including the results of our clinical studies and the timing and cost of regulatory submissions. Based on our current estimates, we currently do not have sufficient cash to conduct our plan of operations for the next twelve months from the date of this prospectus and that our current cash and cash equivalents are only sufficient to fund our operations into the third quarter of 2008. We are, however, seeking additional investment from various investors, but

currently have no firm agreements or commitments in this regard to fund future development of our product candidates. Failure to raise additional capital may result in substantial adverse circumstances, including our inability to continue the development of our product candidates and our liquidation.

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Critical Accounting Policies

Management's discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, management evaluates its estimates, including those related to revenue recognition, impairment of long-lived assets, including finite lived intangible assets, accrued liabilities and certain expenses. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ materially from these estimates under different assumptions or conditions.

Our significant accounting policies are summarized in Note 1 to our audited financial statements for the year ended December 31, 2007. We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of our consolidated financial statements:

Development Stage Enterprise

We are a development stage enterprise as defined by the Financial Accounting Standards Board's, or FASB, Statement of Financial Accounting Standards, or SFAS, No. 7, "Accounting and Reporting by Development Stage Enterprises." We are devoting substantially all of our present efforts to research and development. All losses accumulated since inception have been considered as part of our development stage activities.

Short Term Investments

Short-term investments generally mature between three and twelve months. Short term investments consist of U.S. government agency notes purchased at a discount with interest accruing to the notes full value at maturity. All of our short-term investments are classified as available-for-sale and are carried at fair market value which approximates cost plus accrued interest.

Patents

In accordance with SFAS No. 2, "Accounting for Research and Development Costs," or SFAS 2, the costs of intangibles that are purchased from others for use in research and development activities and that have alternative future uses are capitalized and amortized. We capitalize certain patent rights that are believed to have future economic benefit. The licensed capitalized patent costs were recorded based on the estimated value of the equity security issued by us to the licensor. The value ascribed to the equity security took into account, among other factors, our stage of development and the value of other companies developing extracorporeal bioartificial liver assist devices. These patent rights are amortized using the straight-line method over the remaining life of the patent. Certain patent rights received in conjunction with purchased research and development costs have been expensed. Legal costs incurred in obtaining, recording and defending patents are expensed as incurred.

Stock-Based Compensation

Commencing January 1, 2006 we adopted SFAS No. 123R, "Share Based Payment," or SFAS 123R, which requires all share-based payments, including grants of stock options, to be recognized in the income statement as an operating expense, based on fair values. Prior to adopting SFAS 123R, we accounted for stock-based employee compensation under Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees," as allowed by SFAS

No. 123, “Accounting for Stock-Based Compensation”. We have applied the modified prospective method in adopting SFAS 123R. Accordingly, periods prior to adoption have not been restated.

New Accounting Pronouncements

In September 2006, the FASB issued SFAS No. 157, “Fair Value Measurements,” or SFAS 157. SFAS 157 establishes a single authoritative definition of fair value, sets out a framework for measuring fair value, and requires additional disclosures about fair-value measurements. SFAS 157 applies only to fair value measurements that are already required or permitted by other accounting standards (except for measurements of share-based payments) and is expected to increase the consistency of those measurements. Accordingly, SFAS 157 does not require any new fair value measurements. However, for some entities, the application of SFAS 157 will change current practice. SFAS 157 is effective for fiscal years beginning after November 15, 2007, and interim periods within those fiscal years. We do not expect the adoption of SFAS 157 to have a material impact on our financial statements.

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In February 2007, the FASB issued SFAS No. 159, "The Fair Value Option for Financial Assets and Financial Liabilities, Including an Amendment of FASB Statement No. 115," or SFAS 159, which is effective for financial statements issued for fiscal years beginning after November 15, 2007 and interim periods within those fiscal years. SFAS 159 permits entities to measure eligible financial assets, financial liabilities and firm commitments at fair value, on an instrument-by-instrument basis, that are otherwise not permitted to be accounted for at fair value under other generally accepted accounting principles. The fair value measurement election is irrevocable and subsequent changes in fair value must be recorded in earnings. We are currently evaluating the impact that SFAS 159 will have on our financial statements.

On June 27, 2007, the FASB reached a final consensus on Emerging Issues Task Force, or EITF, Issue 07-3, "Accounting for Advance Payments for Goods or Services to Be Used in Future Research and Development Activities," or EITF 07-03. Currently, under SFAS 2 nonrefundable advance payments for future research and development activities for materials, equipment, facilities, and purchased intangible assets that have no alternative future use are expensed as incurred. EITF 07-03 addresses whether such non-refundable advance payments for goods or services that have no alternative future use and that will be used or rendered for research and development activities should be expensed when the advance payments are made or when the research and development activities have been performed. The consensus reached by the FASB requires companies involved in research and development activities to capitalize such non-refundable advance payments for goods and services pursuant to an executory contractual arrangement because the right to receive those services in the future represents a probable future economic benefit. Those advance payments will be capitalized until the goods have been delivered or the related services have been performed. Entities will be required to evaluate whether they expect the goods or services to be rendered. If an entity does not expect the goods to be delivered or services to be rendered, the capitalized advance payment will be charged to expense. The consensus on EITF 07-03 is effective for financial statements issued for fiscal years beginning after December 15, 2007, and interim periods within those fiscal years. Earlier application is not permitted. Entities are required to recognize the effects of applying the guidance in EITF 07-03 prospectively for new contracts entered into after the effective date. We are in the process of evaluating the expected impact of EITF 07-03 on our financial position and results of operations following adoption.

Results of Operations

Comparison of Fiscal Year ended December 31, 2007 to Fiscal Year ended December 31, 2006

Since we are still developing our product candidates and do not have any products available for sale, we have not yet generated any revenues from sales. Revenues from periods prior to 2005 represent revenues recognized from government research grants that we have received.

General and administrative expenses of $3,420,048 and $3,315,174 were incurred for the years ended December 31, 2007 and 2006, respectively. For the year ended December 31, 2007, the expenses include $976,000 in fees incurred to outside consultants and professionals, $788,000 in payroll and payroll related costs, $715,000 in non-cash option and warrant charges, $135,000 in investor relation costs, $180,000 in equity offering contingent charges and other administrative expenses. For the year ended December 31, 2006, the expenses include $662,000 in fees incurred to outside consultants, professionals and board member fees, $549,000 in payroll and payroll related costs, $1,076,000 in non-cash option and warrant charges, $239,000 in investor relation costs and other administrative expenses. Professional fees increased in 2007 due to increased patent legal costs of $102,000, increased legal costs of $151,000 due to additional administration associated with an acquired patent portfolio and various compliance and contract negotiations, and an increase in executive search recruitment fees of $114,000 related to our search for a CEO. The decrease in non-cash option and warrant charges reflect lower fair value option charge calculations which are impacted by a declining common stock market price in 2007. The 2007 increase in payroll and payroll related expenses primarily reflect the severance costs incurred with the former Chief Executive Officer's separation

agreement. An equity offerings contingency for $180,000 was accrued in the first quarter of 2007. Investor relations cost reductions are attributed to lower spending on fixed retainer costs. On March 29, 2008, we reduced our workforce by three people in order to help preserve our cash balance. We anticipate severance costs and vacation payout payments of approximately $17,000 related to this reduction in force.

Research and development expenses of $2,299,632 and $1,822,614 were incurred for the years ended December 31, 2007 and 2006, respectively. Research and development expenses for 2007 consist primarily of $635,000 in payroll and payroll related expenses, $299,000 in SEPET™ development, manufacturing and clinical costs, $701,000 in consultant costs related to manufacturing, regulatory and product management, $425,000 in patent acquisition costs, and $36,000 in HepatAssist™ facility costs. Research and development expenses for 2006 consist primarily of $570,000 in payroll and payroll related expenses, $486,000 in SEPET™ development, manufacturing and clinical costs, $380,000 in consultant costs related to manufacturing, regulatory and product management, and $144,000 in HepatAssist™ facility costs. Research and development costs increased by $477,018 from 2006 to 2007 and reflect increased expenditures for the SEPET™ program. Payroll cost increases reflect a full year salary in 2007 for clinical research management hired in 2006. The increase in consulting costs reflects outsourced service costs incurred related to the SEPET™ program, $425,000 in patent acquisition costs relate to the patent portfolio acquisition in March 2007. The HepatAssist™ facility lease was terminated in March 2007 and resulted in lower costs for this program.

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The change in fair value of warrant liability reflects the elimination of the warrant liability valuation due to our recording a change in accounting principal on 2007. In accordance with SFAS No. 154, "Accounting Changes and Error Corrections," or SFAS 154, we recorded a change in accounting principal related to EITF Issue No. 00-19-2, "Accounting for Registration Payment Arrangements," or EITF 00-19-2. EITF 00-19-2 was issued December 21, 2006 and is effective for fiscal periods beginning after December 15, 2006, and requires the registration rights agreement and any registration rights payments to be considered separately from the financial instruments. In accordance with EITF 00-19-2, we reversed the classification of the warrant liability associated with the warrants issued in our 2005 and 2006 financings from debt to equity during the period ended March 31, 2007. The warrants and registration rights agreement were previously accounted for as a single instrument, and without the consideration of the registration rights payments, the warrants are properly classified as equity in accordance with EITF 00-19. We reviewed the instruments entered into in connection with our 2007 financing and determined that the financing did not have any embedded derivatives requiring derivative accounting treatment.

Interest income of $167,030 and $154,697 was earned for the years ended December 31, 2007 and 2006 respectively. The increase in interest income of $12,333 results from higher average cash balances maintained in 2007.

Our net loss increased to $5,552,650 in 2007 from $4,461,904 in 2006. The increase in net loss is attributed to an increase in operating expenses incurred in the fiscal 2007 periods as compared to the same periods in 2006, without an increase in revenues.

Liquidity and Capital Resources

As of December 31, 2007, we had cash and cash equivalents of $2,735,944. We do not have any bank credit lines. To date, we have funded our operations from the sale of equity securities and government research grants.

On April 23, 2007, we completed a private equity financing of $4,861,000 to a group of current and new accredited investors which was reduced by $377,000 in fund raising costs resulting in net proceeds to us of $4,484,000. In the offering, we sold 3,739,231 Units. Each Unit was sold at a price of $1.30 per Unit. Each Unit consists of: (i) two shares of common stock, (ii) one warrant to purchase one share of common stock exercisable for a period of 2.5 years at an exercise price of $1.00 ("A Warrants") and (iii) one warrant to purchase one share of common stock exercisable for a period of five years at an exercise price of $1.40 ("B Warrants"), comprising a total of 7,478,462 shares of common stock and warrants to purchase 7,478,462 shares of common stock. The warrants have no provision for cashless exercise and, subject to certain requirements, we may call the warrants provided that our common stock trades above $1.50 for the A Warrants and above $2.80 for the B Warrants for a specified time period. The placement agent received: (i) a cash fee of $252,000, (ii) a warrant to purchase 576,615 shares of common stock with an exercise price of $0.65 and a term of five years with a Black Scholes valuation of $275,845 utilizing the following assumptions: risk free interest rate 4.59%, stock price volatility 0.80, expected life 5 years, dividend yield 0%, and (iii) a contingent cash fee of 7% of cash proceeds generated in connection with any additional payments, equity purchases or warrant exercises originating from investors from the April 2007 financing within 12 months of the closing of the financing. As a result of the April 2007 financing and pursuant to certain anti-dilution terms of our prior equity financings, we increased the number of shares issuable under the warrants issued in the 2005 and 2006 financing by approximately 746,000 shares. The exercise price of the warrants from the January 2005 equity financing was reduced from $2.74 to $1.91 per share and the exercise price of the warrants from the March 2006 equity financing was reduced from $1.50 to $1.22 per share.

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Based on our current estimates, we currently do not have sufficient cash to conduct our plan of operations for the next twelve months from the date of this prospectus and our current cash and cash equivalents are only sufficient to fund our operations into only part of the third quarter of 2008. We are seeking additional investment from various investors, but currently have no firm agreements or commitments in this regard to fund future development of our product candidates.

We do not currently anticipate that we will derive any revenues from either product sales or from governmental research grants during the current fiscal year.

The cost of completing the development of our product candidates and of obtaining all required regulatory approvals to market our product candidates is substantially greater than the amount of funds we currently have available and substantially greater than the amount we could possibly receive under any governmental grant program. As a result, we will have to obtain significant additional funds during the next six months. We currently expect to attempt to obtain additional financing through the sale of additional equity and possibly through strategic alliances with larger pharmaceutical, medical device or biomedical companies or alternative financing vehicles. We cannot be sure that we will be able to obtain additional funding from any of these sources, or that the terms under which we obtain such funding will be beneficial to us. Failure to raise additional capital may result in substantial adverse circumstances, including our inability to continue the development of our product candidates and our liquidation.

A summary of our contractual cash obligations at December 31, 2007 is as follows:

Contractual Obligations	**Total**	**2008**	**2009**	**2010**	**2011**
Long-Term Leases	$ 40,352	$ 40,352	-	-	-
License Agreement	300,000	50,000	100,000	150,000	-
Total	$ 340,352	$ 90,352	$ 100,000	$ 150,000	$ -

We do not believe that inflation has had a material impact on our business or operations.

We do not engage in trading activities involving non-exchange traded contracts. In addition, we have no financial guarantees, debt or lease agreements or other arrangements that could trigger a requirement for an early payment or that could change the value of our assets.

Off-Balance Sheet Arrangements

We are not a party to any off-balance sheet arrangements.

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BUSINESS

Background of our Company

Arbios Technologies, Inc., our former operating subsidiary, was formed in August of 2000 by Drs. Achilles A. Demetriou and Jacek Rozga, two leaders in the field of artificial liver therapy, to develop extracorporeal therapies for the treatment of liver failure. ATI developed SEPET™, which we acquired upon our purchase of ATI in October 2003. In addition, as previous employees of Cedars-Sinai Medical Center, Drs. Demetriou and Rozga previously were involved in the development of a first generation bioartificial liver known as HepatAssist™ that was licensed by Cedars-Sinai Medical Center in 1994 to W.R. Grace & Co. and then subsequently transferred to Circe Biomedical, Inc. Circe Biomedical ceased operations in 2003 and in April 2004, we purchased the remaining assets of Circe Biomedical that related to its bioartificial liver operations, including rights to the original HepatAssist™ system. In July 2005, we consolidated our corporate structure by merging ATI into our then parent company, Arbios Systems, Inc., creating our current operating structure.

To date, we have funded our operations from the proceeds from the sale of over $18,000,000 of our equity securities and $321,000 of Small Business Innovation Research grants that have been awarded by the U.S. Small Business Administration. We will have to raise substantial additional capital to fund our future clinical development expenses and our on-going working capital needs.

Our current plan of operations for the next 12 months primarily involves research and development activities, including clinical trials for the SEPET™ Liver Assist Device, and the preparation and submission of applications to the FDA. We submitted an IDE application for SEPET™ in March 2005 and commenced clinical trials for SEPET™ in the third quarter of 2005. In the third quarter of 2007, we completed the Phase I feasibility clinical trial for SEPET™. In February 2008, the FDA granted us conditional approval of an IDE to begin the Phase II/III pivotal trial of SEPET™. After discussions with the FDA, we submitted a revised trial design to the FDA and in May 2008 the FDA granted us approval of the revised IDE to begin the pivotal trial of SEPET™. The revised trial design has co-primary endpoints of (i) a two-stage drop in HE and (ii) the 30-day transplant free survival of patients who reach a two-stage drop in HE. The actual amounts we may expend on research and development and related clinical activities during the next 12 months may vary significantly depending on numerous factors, including how the results of our clinical trials and the timing and cost of regulatory submissions. We do not expect to make any significant purchases or sales of plant or equipment during the next twelve months. We also intend to continue exploring options to reactivate our development of the HepatAssist™ Cell-Based Liver Support System; however, we will need to obtain significant additional capital to fund this program or find a strategic partner who would be willing to assist in developing this product candidate. Based on our current estimates, we believe that we do not have sufficient financial resources to conduct our planned operations for the next twelve months and that our current cash and cash equivalents are sufficient to fund our operations into the third quarter of 2008. Failure to raise additional capital may result in substantial adverse circumstances, including our inability to continue the development of our product candidates and our liquidation.

Our research offices and laboratories are located in Medford, Massachusetts where we lease 1,783 square feet at $5,044 per month with a term of one year that was entered into on September 15, 2007. We maintain an administrative office in Pasadena, California leased on a month-to-month basis for approximately $1,500 per month and our corporate headquarters is located in Waltham, Massachusetts, which is leased through July 2008 for approximately $3,700 per month.

Two members of our management team, Dr. Ulrich Baurmeister, Ph.D., Chief Technology Officer, and Prof. Jan Stange, M.D., Senior Clinical Advisor, are engaged under consulting agreements and are based in Germany (Wuppertal and Rostock, respectively). Their work is divided between their homes, clinical sites and product development sites under contract with us.

We have also entered into various exclusive manufacturing and supply agreements with Membrana GmbH, or Membrana, and NxStage Medical Inc., or NxStage. Membrana is a Germany company that specializes in the manufacture of membranes used for hemofiltration and will supply us with the membrane material needed for manufacture of the SEPET™ Liver Assist Device. NxStage is a U.S. based company that will assemble the SEPET™ cartridge utilizing the supplied membrane from Membrana.

On September 19, 2007, Walter C. Ogier, resigned from our Board of Directors and as our President and Chief Executive Officer and our Board of Directors appointed Shawn P. Cain, previously our Vice President of Operations, as our Interim President and Chief Executive Officer.

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Strategy

We believe that the clinical testing and regulatory approval periods for the SEPET™ Liver Assist Device will be shorter than our HepatAssist™ Cell-Based Liver Support System because SEPET™ may be evaluated as a medical device that does not contain biological components such as the pig cells that are an integral part of our HepatAssist™ product candidate. Accordingly, because of the shorter regulatory period and the ability of SEPET™ to operate through the use of a standard, currently available kidney dialysis instrument, we expect that the development of SEPET™ can be completed before the development of HepatAssist™ is completed. Therefore, we are focusing our efforts on the development of SEPET™.

We have already performed *in vitro* and *in vivo* testing of the SEPET™ prototype device and commenced clinical testing of SEPET™ in late 2005. We treated 14 patients suffering from acute-on-chronic liver failure with hepatic encephalopathy in the Phase I feasibility clinical trial of SEPET™ and have completed this clinical trial. In February 2008, the FDA granted us conditional approval of an IDE application to begin the pivotal clinical trial for SEPET™. After discussions with FDA, we submitted a revised trial design to the FDA and in May 2008 the FDA granted us approval of an IDE to begin the pivotal trial for SEPET™. The revised trial design has co-primary endpoints of (i) a two-stage drop in hepatic encephalopathy, or HE, and (ii) the 30-day transplant free survival in patients who reach a two-stage drop in HE. We expect to enroll an aggregate of 121 patients in the first two stages of this trial and we expect to initiate the first segment of this trial by the end of the second quarter of 2008.

Our strategy for realizing sales revenue from SEPET™ is to seek a CE Mark in Europe prior to approval of the product candidate by the FDA. We believe commercialization of SEPET™ under a CE Mark may be possible in the beginning of 2009. It may also be possible to commercialize SEPET™ in Asia in that same timeframe, although we do not yet have assurance of regulatory pathways in that region. Commercialization of SEPET™ in the United States may only follow successful completion of a pivotal clinical trial of SEPET™ meeting efficacy endpoints approved by the FDA. Our ability to successfully market SEPET™ in these various regions will depend on a number of factors including regulatory approvals, marketing and sales partnerships, and patents protection which is not yet issued outside the United States.

The April 2004 acquisition of the assets of Circe Biomedical has provided us with opportunities for the development of a bioartificial liver. The Circe Biomedical bioartificial liver device assets that we acquired consist of the following three distinct elements:

(1) *FDA-authorized standard operating procedures*. These are standard operating procedures for production of porcine cells including harvesting, freezing, storing, shipping and processing by the end user (thawing, washing) of the cells. These procedures and protocols have been reviewed by the FDA for use in a pivotal phase clinical trial.

(2) *The cartridge to be used in the Phase III trial of HepatAssist*™. We intend to use the existing, FDA-approved cartridge housing, and we have obtained FDA authorization to increase the number of porcine liver cells, or hepatocytes, that the cartridge would contain, which we believe will improve the functionality of the system with no adverse impact on safety.

(3) *An FDA reviewed, authorized Phase III protocol acquired from Circe Biomedical*. We will likely further modify this protocol, according to the retrospective analysis of the original Phase II/III clinical trial published in the Annals of Surgery in 2004 (by A.A. Demetriou et al), and submit the modified protocol to the FDA for approval.

Rather than using Circe Biomedical's specially designed machine, we intend to use the PERFORMER, a commercially available machine that is distributed by Medtronic, Inc. We believe that the PERFORMER may become the platform for our HepatAssist™ Cell-Based Liver Support System.

We are evaluating the possibility of conducting clinical studies of the HepatAssist™ System under a modified version of the FDA-reviewed Phase III IND protocol that we acquired in March 2004 from Circe Biomedical; however, we will need to obtain significant additional funding or establish a corporate partnership in order to further develop this product candidate. Since we are still developing our clinical and regulatory strategies for the HepatAssist™ Cell-Based Liver Support System, and since our continual development of this product candidate depends on our securing additional funding or a corporate collaboration, we cannot estimate when an application requesting marketing approval of HepatAssist™ will be filed.

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Based on our current assumptions regarding clinical trial sizes and other factors, we estimate that the future clinical cost of developing SEPET™ will be approximately $5 million to $10 million and the future clinical cost of developing HepatAssist™ will be between $15 million and $20 million. These amounts, which could vary substantially if our assumptions are not correct and we need to enroll significantly more patients in our trials, are well in excess of the amount of cash that we currently have available to us. See "Risk Factors."

Liver Function Background

The liver controls, or affects, almost every aspect of metabolism and most physiologic regulatory processes, including protein synthesis, sugar and fat metabolism, blood clotting, the immune system, detoxification of alcohol, chemical toxins, and drugs, and waste removal. Loss of liver function is a devastating and life threatening condition. Liver failure affects all age groups and may be due to many causes, including viral infection, hepatitis, ingestion of common medications, alcohol, and surgical liver removal for trauma and cancer.

Currently, there is no direct treatment for liver failure, except a successful liver transplant. There is, however, a current scarcity of donor livers, and approximately two thousand patients on the waiting list for donor livers die annually before receiving liver transplants. We believe that treatments with currently available technologies such as blood detoxification methods are short-term measures, and none of them has achieved wide-spread clinical use or demonstrated ability in randomized, controlled clinical trials to arrest or reverse liver failure and improve survival. As a consequence, liver failure patients must still either undergo liver transplantation or endure the probability of prolonged hospitalization with a low probability of survival. In addition, many patients do not qualify for transplantation or live in regions of the world where transplantation is not readily available. Still others do not recover after transplantation because of irreversible brain damage or other organ damage caused by liver failure prior to transplantation. Although the liver has a remarkable capacity for regeneration, the repair process after massive liver damage is markedly impaired by the continued presence of toxins, inflammatory cytokines and other inhibitors of liver organ regeneration still present in the blood of these patients.

In liver failure patients, there is a need for an effective blood purification therapy that will clear the blood of toxins, mediators of inflammation and inhibitors of hepatic growth. SEPET™ is a novel form of such therapy developed by us in which the plasma fraction containing substances that are toxic to the brain, the liver and other internal organs and tissues are removed from patient blood and replaced with normal human plasma. In addition to demonstrating an extension of survival in large animal model testing of SEPET™, 79% of the patients in our recently completed feasibility clinical trail of SEPET™ showed full resolution or a reduction in hepatic encephalopathy (H.E., also known as liver coma) by at least two grades of H.E.

There is a further need to develop artificial means of liver replacement with the aim of either supporting patients with borderline functional liver cell mass until their liver regenerates or until a donor liver becomes available for transplantation. Such an "artificial liver" should also support patients during recovery after transplantation with marginal livers and after extended liver resections for trauma or cancer. To achieve these effects, effective liver support systems should be able to lower levels of substances toxic to the brain and liver in the patient's blood and to provide whole liver functions, which are impaired or lost.

Our founders, as well as investigators not associated with us, have demonstrated *in vitro* and in animal models of liver failure that cell-based bioartificial liver systems using viable isolated hepatocytes can provide whole liver functions, to varying degrees depending on the technology approach. Only a few bioartificial livers, however, have been tested in humans and it remains to be seen whether systems utilizing hepatocytes as the only means of liver support are effective. We believe that in order to provide the maximum support for the failing liver, primary porcine hepatocyte therapy should be combined with blood purification or detoxification using sorbent technology.

Our bioartificial liver system, the HepatAssist™ Cell-Based Liver Support System, was designed to become an advanced, effective application of the basic bioartificial liver concept. In this bioartificial liver system, liver cell therapy in the form of primary (i.e. living, non-cell line derived) porcine hepatocytes, is combined with blood detoxification, in the form of sorbent based plasma treatment. Depending on the cause of liver disease, severity of illness and deficiency of specific liver functions, the bioartificial liver mode of therapy can be provided individually, simultaneously or sequentially. Because of these features, we believe our bioartificial liver technology is well suited to treat patients with liver failure of all causes and severity, including those requiring maximum liver support.

Pre-clinical data for the HepatAssist™ Cell-Based Liver Support System indicated that this system could improve heart rate and blood pressure and provide clearance of ammonia and indocyanine green (ICG), which is a liver function test. The original HepatAssist™ Phase II/III clinical trial demonstrated a retrospective, statistically significant increase in patient survival in patients with viral and drug-induced fulminant/subfulminant (i.e. acute) hepatic failure. A new Phase III clinical trial, however, will be needed before our HepatAssist™ system, which is an enhanced version of the original HepatAssist™ system, may be commercialized.

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The Product Candidates We Are Developing

We currently are developing novel treatments for acute and chronic liver failure. We believe that our SEPET™ Liver Assist Device and our HepatAssist™ Cell-Based Liver Support System may:

- help keep liver failure patients alive and neurologically intact before, during and immediately after transplantation;
- allow other patients to recover liver functionality and to survive without a transplant (act as a "bridge" to liver regeneration);
- support patients during periods of functional recovery and regeneration after partial liver removal due to liver trauma and/or cancer;
- accelerate recovery from acute exacerbation of chronic liver disease;
- shorten length of stay in intensive care units;
- shorten overall hospital stay; and
- reduce the cost of care.

We believe that our SEPET™ Liver Assist Device and HepatAssist™ Cell-Based Liver Support System can achieve these effects because they can lower levels of substances that are toxic to both the brain and liver and other internal organs. We have obtained final results in the feasibility clinical trial of SEPET™, and we have results from Circe's Phase II/III clinical trial of HepatAssist™. However, final proof of clinical benefit in patients is lacking at this time, and the clinical utility of these product candidates still needs to be conclusively demonstrated in patients with liver failure through randomized, controlled clinical trials of each therapy.

We own certain technologies and rights related to our product candidates, and have licensed certain other technologies. See "- Patents and Proprietary Rights" below for a description of the rights that we own and have licensed.

SEPET™

The SEPET™ Liver Assist Device

We are developing the SEPET™ Liver Assist Device as a blood purification measure to provide temporary liver support for acute exacerbation of chronic liver disease. SEPET™ therapy will be provided through the sale of our single-use, disposable cartridge that contains a bundle of hollow fibers made of bio- and hemo-compatible material capable of filtering a portion of the substances in the patient's blood including albumin-bound toxins, inflammatory disease mediators, and soluble toxins. The importance of using fibers with this sieving characteristic, which allows for filtration of molecules larger than conventional renal dialysis cartridges, is that known hepatic failure toxins as well as mediators of inflammation and inhibitors of hepatic regeneration have low-to-medium sized molecular weights while "good" blood components generally have relatively high molecular weight. At present, Membrana supplies us with the hemofiltration membranes and NxStage assembles the disposable SEPET™ cartridges. See "Manufacturing" below. The SEPET™ system is designed for use with commercially available kidney dialysis instruments or other similar machines that utilize disposable hollow-fiber cartridges. Accordingly, no specialized apparatus needs to be developed or manufactured for the use of SEPET™. Accessory components for the SEPET™ system such as disposable tubing sets and connectors will mostly consist of standard components that are currently used in renal dialysis and provided by manufacturers of those systems. We expect that any new accessory components that may be required for use with

SEPET™ will be manufactured for us by qualified third-party vendors.

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During SEPET™ therapy, a patient's blood is pumped through the hollow fibers contained in the cartridge and substances normally metabolized by the liver and accumulated in the blood during liver failure are transported convectively across the porous fiber wall and an ultrafiltrate containing toxins, inhibitors of hepatic growth and mediators of inflammation is removed from the patient's blood stream by exiting the side port of the cartridge, while at the same time, intravenous electrolyte solutions, albumin solution, fresh frozen plasma, or a combination thereof will be administered to the patient. We believe that as a result of this two-step blood purification, or detoxification, process, the levels of pathological and normal blood components present in the patient's circulation will move toward normal ranges, thereby facilitating recovery from liver failure. Based on published medical literature, rapid and efficient blood detoxification is expected to protect the liver, brain and other organs against further injury, accelerate healing of the native liver and improve its residual functions.

Clinical Development

Our SEPET™ Liver Assist Device has been tested in an IDE clinical feasibility trial in the United States we completed in 2007. This single arm, uncontrolled study enrolled 15 patients at three major liver transplant hospitals (Cedars Sinai Medical Center, Los Angeles; Albert Einstein Medical Center, Philadelphia; and University of California Medical Center, San Diego) under an IDE application approved by the FDA in 2005. The study enrolled patients suffering hepatic encephalopathy (also known as liver coma), ranging from Grade I to Grade III. Of the 15 patients enrolled into the trial, 14 patients were treated with at least one (typically 5-6 hour) round of SEPET™ treatment, receiving an average of less than two, and a maximum of four, sequential daily treatments until a stable, durable disease response was achieved. Final analysis of the clinical trial results confirmed a high rate of achievement of the primary endpoint for clinical effectiveness with 11/14 (79%) subjects showing full resolution or a reduction in hepatic encephalopathy by at least two grades. The responses were generally rapid and observed within 48 hours after initiation of treatment, with many occurring during the first treatment. Thirteen of 14 (93%) patients' responses were sustained over the 30-day follow-up period, and improved overall liver function was documented as determined by biochemical measures. Just one out of the 14 patients treated proved refractory to repeated SEPET™ treatment, however, achieving a single-grade improvement in their encephalopathy. Two additional patients had treatment halted early, prior to achievement of stable response, due in one case to mild bleeding at a catheterization site and in the other to malfunction of a dialysis machine not associated with our SEPET™ liver assist device. All patients survived until the end of the 30-day follow-up period and 4 patients were subsequently transplanted with a donor liver. SEPET™ treatment was generally well-tolerated and had no negative effects on vital signs (heart rate, blood pressure and respiration) and base blood chemistries. Expected moderate reductions in blood platelets were observed, none with critical consequence. An adverse event of renewed, mild bleeding from a site of prior recent trauma, categorized as severe, was not associated with a low platelet count and was likely caused by the use of heparin for anticoagulation, which is commonly utilized in extracorporeal blood therapy. All treatment-related adverse events were expected and typical of extracorporeal blood therapy procedures, and all were resolved satisfactorily with indicated standard treatment. FDA has allowed a SEPET™ protocol amendment involving discretionary substitution of an alternative anticoagulation method, utilizing sodium citrate instead of heparin, which is anticipated to reduce bleeding risk in subsequent treatments.

Based upon the results of the feasibility study, we submitted an IDE application to the FDA seeking approval to initiate a pivotal trial of SEPET™. Following a meeting with the FDA in the summer of 2007, the FDA granted us conditional approval of the IDE application in February 2008 to begin the pivotal clinical trial while we respond to the FDA's conditions and request for additional information. After additional discussions with the FDA, we submitted a revised IDE application to the FDA and in May 2008 the FDA granted us approval of the revised IDE to begin segment one of the pivotal trial of SEPET™. Based on the revised trial design, we expect that there will be three segments to the pivotal trial of SEPET™ at up to 24 clinical sites in the United States and Europe. During the first segment of the trial, 5 non-randomized patients will be treated with SEPET™ to allow us to validate the patient selection criteria, clinical protocol, case report forms, and other trial related documents. During the second segment of the trial,

we expect to enroll 116 patients in this randomized, controlled phase of the trial. This segment is targeted to achieve the co-primary endpoints, which are (i) the percentage of patients achieving improvement in HE grade by a minimum of two grades by the end of Day 7 in the SEPET™ treatment group versus the standard medical care group, using a 1:1 randomization between the two groups; and (ii) the 30-day transplant free survival rate in all patients (i.e. control and treatment groups) who do reach a two grade HE improvement versus all patients who do not reach a two grade HE improvement. Pending review and approval by the Data Safety Monitoring Board, the third segment would permit the size of the trial to be increased by an additional 52 patients, if the co-primary efficacy endpoints are reached or have not reached statistical significance but have shown a positive trend. If the co-primary endpoints of the trial are reached upon completion of segment two, extension of the trial into segment three may result in the achievement of statistical significance of one or more secondary endpoints of the trial relating to clinical, functional, and reimbursement advantages for SEPET™-treatment over standard medical care. To be a candidate for the pivotal trial, a patient must have chronic liver disease and be experiencing an acute episode of liver failure that results in hospitalization with an HE grade of between II and IV. In addition, the patient must not be responding satisfactorily to standard medical care (e.g. fluid replacement, antibiotics, lactulose) for 20 to 26 hours prior to randomization. Patients contraindicated for a liver transplant (e.g. advanced liver cancer patients and drinking alcoholics) are excluded from the trial. We expect to begin enrolling patients for the first segment of the trial in clinical sites in Germany by the end of the second quarter of 2008.

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HepatAssist™

The HepatAssist™ Cell-Based Liver Support System

Our current bioartificial liver system is the HepatAssist™ Cell-Based Liver Support System. We have designed our HepatAssist™ Cell-Based Liver Support System to provide temporary liver support during acute liver failure and acute exacerbation of chronic liver disease. The HepatAssist™ Cell-Based Liver Support System incorporates several proprietary components and technologies into an integrated liver assist system, including a hollow fiber cartridge with porcine hepatocytes and a plasma re-circulation circuit that incorporates a cell cartridge and sorbents. The HepatAssist™ Cell-Based Liver Support System is designed to (i) provide liver cell functions by utilizing viable pig liver cells that are housed in specially designed cartridges and (ii) detoxify blood. Since it has been scientifically established that pig liver cells perform liver functions when maintained in specially designed cartridges outside of the human body, our bioartificial liver cartridge is designed to bring human plasma into contact with viable pig liver cells in a manner similar to that observed in the normal human liver inside the body in order to provide liver functions to the patient. In addition, our bioartificial liver system is designed to lower the levels of pathological blood components (through activated charcoal or other purification sorbents). Our HepatAssist™ Cell-Based Liver Support System is similar to the earlier HepatAssist™ system, and we have subsequently enhanced it by employing a larger quantity of pig cells, a change which has been authorized by the FDA for use in a new pivotal clinical trial. We have postponed further clinical development of our HepatAssist™ program until we are able to secure additional funding or a potential corporate partner for this program.

Critical to the HepatAssist™ technology is (i) the source and method of procurement of pig liver cells, (ii) the cryopreservation, or freezing, of such liver cells, (iii) the frozen storage of such liver cells, (iv) the proprietary high speed plasma re-circulation loop incorporating the cell cartridge and sorbents, and (v) the standard operating procedure protocols and quality control and programs related to the foregoing. We currently own or have licensed various proprietary technologies and methods for sourcing and using hepatocytes, which technologies and methods apply to our HepatAssist™ system and should provide competitive protection for the product candidate. The following addresses our current plans and procedures regarding viable liver cells (hepatocytes).

Hepatocyte donors. Ideally, human hepatocytes would be used in a bioartificial liver. However, there is a shortage of organ donors, and thus human hepatocytes of adequate quality. Published data demonstrate that pig liver cells can outperform other animal and human liver cell lines, including those derived from liver cancers. In addition, use of human cancer-derived cells raises safety concerns. At this time, we intend to utilize pig liver cells, which we believe to be the currently optimal source of living, functional hepatocytes.

Hepatocyte harvest. The founders of Arbios and Circe Biomedical developed certain semi-automated methods for large-scale harvest of pig hepatocytes. The methods of harvesting and collecting liver cells are covered by four patents, that we acquired from Circe Biomedical and now own or have licensed from Cedars-Sinai Medical Center.

Hepatocyte storage. Hepatocyte storage, quality control and shipment of cells to treatment sites are best achieved by use of cell freezing, or cryopreservation; other methods allow cells to lose viability (i.e. die) as well as physical integrity of their contents (DNA, organelles, etc.). Cryopreservation also provides greater protection from bacterial and viral contamination because frozen cells can be stored until microbiologic testing is completed and cells are then released for clinical use. Prior to use, cells are rapidly thawed and their viability is tested. Importantly, patented hepatocyte cryopreservation technology is now owned by us and by Cedars-Sinai Medical Center, which has licensed this technology to us.

The pig liver cells are expected to be harvested from young, purpose-bred, pathogen-free pigs raised in a facility to be certified specifically by the U.S. Department of Agriculture, or USDA, for biomedical research purposes. Each batch

of cryopreserved pig liver cells will be released for clinical use only after proper verification of biosafety and viability and functionality of the cells. We acquired all of the required laboratory and quality assurance protocols from Circe Biomedical, which protocols were previously reviewed by the FDA and deemed to be in compliance with FDA requirements.

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HepatAssist™ is designed to be used in the same manner as any other blood plasma therapy device. In a typical clinical procedure, the operator will install the bioartificial liver components, consisting of the cell cartridge, oxygenator, sorbent detoxification column(s), and tubing kit, into the blood/plasma perfusion platform. Approximately 14 billion viable pig hepatocytes will be seeded into the extra-fiber space through the cartridge side ports. At the start of treatment, the disposable tubing set will be attached to the patient and the bioartificial liver system will be perfused with the patient's oxygenated plasma. At the end of treatment, the disposables will be discarded in the normal manner that all other biohazardous waste products (such as syringes and bandages) are handled and disposed. No special governmental regulations have been required, or are expected, to dispose of the used cartridges and disposable products.

We expect to demonstrate that during HepatAssist™ therapy, when a patient's blood is pumped through the bioartificial liver system, substances normally metabolized by the liver and accumulated in the blood during liver failure move across the porous fiber walls into two sequential plasma compartments; one compartment is filled with pig liver cells and the other compartment incorporates columns that contain sorbents. The exposure of the viable pig liver cells to patient plasma causes toxic substances contained in the plasma to be metabolized, thereby reducing their concentration level. At the same time, substances produced by pig liver cells move in reverse across the porous wall back into the blood compartment. In addition, the sorbents lower the level of other pathological blood components, such as ammonia. As a result of these two processes (provision of whole liver functions by the pig liver cells and removal of toxins by the sorbents), it is anticipated that the levels of pathological and normal blood components present in the patient's circulation will move toward normal ranges, thereby facilitating recovery from liver failure. Additional therapeutic benefits may be provided by blood detoxification therapy. In this mode of therapy, small and large protein-bound toxins, which accumulate in the blood during liver failure, are expected to be removed by sorbents. Blood detoxification is believed to protect the liver, brain and other organs against further injury, accelerate healing of the native liver and improve its residual functions. Decreased blood toxicity is also expected to prolong the life and metabolic activity of pig hepatocytes in the bioartificial liver cartridge.

We do not anticipate that HepatAssist™ will use the Circe-designed proprietary perfusion platform, which is a machine through which the patient's blood is circulated, that was originally developed for the HepatAssist™ system. Instead, we have validated a perfusion platform known as the PERFORMER for use as the platform to provide bioartificial liver therapy. The PERFORMER is a multi-function integrated system capable of supporting extracorporeal blood/plasma/fluid circulation therapies that is manufactured by RanD S.r.l. (Italy) and distributed world-wide by Medtronic, Inc. The PERFORMER has been equipped with proprietary software and a specialized tubing set for use with our HepatAssist™ Cell-Based Liver Support System.

Preclinical and Clinical Development

Overall, we believe that the animal and human clinical data generated and published to date on the original HepatAssist™ system indicate that the basic concept of a bioartificial liver utilizing cryopreserved pig liver cells and blood detoxification is supported, and that repeated six-hour bioartificial liver treatments are safe and yield measurable therapeutic benefits. Accordingly, we believe that our novel, next-generation products will represent improvements and/or enhancements over earlier technologies.

The safety and efficacy of the original HepatAssist™ system were evaluated in a prospective, randomized, controlled, multi-center FDA-approved clinical trial. A total of 171 patients, 86 in the control group, and 85 in the bioartificial liver group, were enrolled. Patients with fulminant and subfulminant hepatic failure and primary non-function following liver transplantation were included. Data were analyzed with and without accounting for the following confounding factors: liver transplantation during the survival endpoint period, time to liver transplant, cause of the disease or condition, disease severity, and treatment site. For the entire patient population, survival at 30 days was 71% for bioartificial liver compared to 62% for the control group. When survival was analyzed accounting for

confounding factors such as liver transplantation and survival prior to transplantation, across the entire patient population, there was thus a trend towards improved survival but not a statistically significant difference between the two groups. However, survival in the 147 fulminant and subfulminant hepatic failure patients (i.e. excluding the primary non-function patients) was significantly higher in the HepatAssist™ Cell-Based Liver Support System group compared to the control group. Furthermore, HepatAssist™ therapy reduced the risk of pre-transplant death by 67% in patients with drug and chemical toxicity ($p<0.0140$) and by 47% in patients with rapid onset of fulminant hepatic failure ($n=121$; $p<0.0428$) These trials of the original HepatAssist™ system were the first and amongst the largest prospective, randomized, controlled multi-center trials of a liver assist technology, and, to our knowledge, the only such trial to have been successful in demonstrating a survival advantage for an extracorporeal liver assist technology, albeit via a retrospective analysis. Although treated fulminant/subfulminant hepatic failure patients with viral and drug-induced liver injury retrospectively demonstrated improved survival compared to controls when adjusted for the effect of confounding factors, the prospective primary clinical end point in the overall study population was not achieved. As a result, the HepatAssist™ system was not approved for marketing, and the FDA requested that a new Phase III clinical study be performed. A new Phase III protocol was prepared and reviewed by the FDA but Circe Biomedical did not initiate this trial before it ceased operations in 2003 and we have postponed further clinical development of our HepatAssist™ program until we are able to secure additional funding or a potential corporate partner for this program.

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Advantages of Our Product Candidates

We believe that SEPET™ as a blood purification therapy will be more effective than sorbent-based devices such as charcoal, resin and silica, and more effective than whole plasma exchange therapy, because only the plasma fraction containing known toxins of hepatic failure is being removed and discarded during SEPET™ therapy. In contrast, sorbent-based blood purification is not toxin-specific, and in the case of charcoal sorption it is limited because of the protective coating of the charcoal particles. It also fails to remove most mediators of inflammation and protein bound toxins from the blood which are associated with liver failure. Subject to the successful completion of clinical trials and FDA or other regulatory approval, we believe that SEPET™ will be able to be used with currently available hospital kidney dialysis systems, which may offer the following advantages:

- Ease of use. The systems bring user friendliness (e.g., pump integration, automation and an intuitive user interface) to traditionally complex liver support procedures.

- Simplicity. Kidney dialysis systems are routinely used in hospitals and outpatient clinics and, therefore, there may be a reduced need for extensive personnel training for use of these similar systems with SEPET™. These systems are commonly available in intensive care units and related settings where SEPET™ may be initially used for treating acute episodes of chronic liver failure.

- Reduced cost. The cost of therapy is expected to be lower than with other liver assist devices that are currently under development because the machine to which the SEPET™ cartridge can be attached is a standard machine (such as a kidney dialysis machine) with commercially available tubing. Therefore, unlike other devices, no special equipment is required.

- No intensive care unit needed to provide treatment. SEPET™ may become available for treatment of patients with a lower degree of liver failure outside of the intensive care unit setting. We do not believe that any changes will have to be made to SEPET™ or the dialysis system in order for SEPET™ to become available outside of intensive care unit settings. However further (e.g. Phase IV) clinical trials will likely be necessary to fully develop these additional indications for SEPET™.

We believe that HepatAssist™ is the only liver assist device under development that is capable of providing both liver cell functions and blood purification either simultaneously or sequentially in a versatile and customized manner depending on the cause and severity of liver failure. Drs. Demetriou and Rozga, have previously demonstrated that cryopreserved pig hepatocytes can remain alive (e.g. >80% viability) after freezing and thawing using carefully developed, patented procedures. Moreover, the hepatocytes quickly aggregate, forming liver-like 3-dimensional cellular units, and resume basic functions (e.g., drug metabolism) at levels comparable to those seen in intact livers. Drs. Demetriou and Rozga have also reported that treatment of animals and patients with fulminant hepatic failure with a bioartificial liver loaded with freshly thawed pig hepatocytes prolonged life, alleviated intracranial hypertension and improved blood chemistry. In addition, in experimental animals, bioartificial liver therapy improved native liver function and triggered mechanisms regulating liver regeneration. In addition, because porcine hepatocytes can be stored frozen at a clinical site, treatment with our bioartificial liver system can be commenced within two to three hours of patient consent and product preparation, thereby making this bioartificial liver therapy available on demand. In instances of liver failure, this rapid availability of therapy should be a critical competitive advantage. In contrast, we believe other liver assist devices under development require longer time for preparation prior to patient treatment (up to several days in some instances, including cumbersome means of shipment to the clinical site).

While these projected advantages appear supported by the clinical trial data evidence to date, some of these product functions may not be demonstrated without head-to-head trials with competitive approaches.

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Market Opportunity

Based on the number of patients with liver diseases and lack of alternative direct therapy other than liver transplantation, we believe that there is an urgent need for artificial means of liver replacement and/or assistance to facilitate recovery from liver failure without a transplant. Effective liver support therapies could also help maintain liver failure patients' lives until an organ becomes available for transplantation. The SEPET™ Liver Assist Device and HepatAssist™ Cell-Based Liver Support System can address patients with liver failure across a wide range of causes and severity, including acute exacerbation of chronic liver disease as well as acute liver failure in patients without history of chronic disease.

We believe that the patient and market opportunity is substantial and underserved. According to the American Liver Foundation, 25,000,000 persons in the United States, nearly one in every ten persons, are or have been suffering from liver and biliary diseases. According to the National Center for Health Statistics data published for 2004, there were over 500,000 hospital discharges for patients with chronic liver disease and/or cirrhosis plus additional patients categorized as suffering from other forms of liver failure. According to the American Liver Foundation, liver disease is among the top seven causes of death in adults in the United States between the ages of 25 to 64. In fact, one out of every 10 Americans has some form of liver disease. There is currently no satisfactory therapy available to treat patients in liver failure, other than maintenance and monitoring of vital functions and keeping patients stable through provision of intravenous fluids and blood products, administration of antibiotics and support of vital functions, such as respiration.

The mounting crisis of viral hepatitis B and hepatitis C is projected to continue to propel numbers of liver failure episodes as patients age and increasingly suffer hepatic decompensation. Approximately 4 million Americans are chronically infected with the hepatitis C virus, and an estimated 25,000 people each year are newly infected in the United States each year with the hepatitis C virus. At the same time, 10,000 to 12,000 deaths have occurred annually in the United States due to hepatitis C virus infection, and the number is likely rising. Hepatic decompensation, as a result of chronic hepatitis C virus infection, is now the leading cause of liver transplantation in the United States. Despite improved rates of organ donation, increased utilization of deceased donor livers and a resurgence in living donor transplants, the number of liver transplants performed yearly is now approximately 5,500. At the same time, in 2004 alone there were more than 10,000 new waitlist registrations for liver replacement. As of March 14, 2008, the liver transplant waiting list contained 16,390 individuals. Hepatitis B is less prevalent in the United States than hepatitis C - a situation that is dramatically reversed in other parts of the world where chronic hepatitis B infection is endemic or pandemic; however, according to National Institutes of Health and the American Association for the Study of Liver Diseases, 5,000 deaths occur annually in the United States as a consequence of hepatitis B virus infection.

Worldwide, hepatitis B is the leading cause of liver failure. Of the 2 billion people who have been infected with the hepatitis B virus, more than 350 million are estimated to have chronic, or lifelong, infections. These chronically infected persons are at high risk of death from cirrhosis of the liver and liver cancer. The World Health Organization estimates very large numbers of deaths worldwide from hepatitis B virus infection -- an estimated 880,000 per year from liver failure and another 320,000 per year from liver cancer (some of whom may require liver support therapy before and/or after surgical resection of the cancer). Infection is most common in Asia, Africa and the Middle East. Hepatitis C is also a major cause of liver failure worldwide. According to the World Health Organization, globally, an estimated 170 million persons are chronically infected with the hepatitis C virus. At the same time, an estimated 3 to 4 million persons are newly infected each year. Liver failure has recently been cast, worldwide, as the third leading cause of death. In China and other Asian countries, liver disease represents a pressing health problem and the need for an effective liver support therapy is most urgent. Although epidemiological data on hepatitis C virus and hepatitis B virus infection in China are not publicly available, we believe there are approximately 200 million carriers of the hepatitis virus B or C in China, and primary liver cancer is a common malignancy.

At present, no direct dependable treatment for liver failure is available and such patients must receive a liver transplant or endure prolonged hospitalization with significant mortality. Moreover, no prognostic test is available that would help predict which liver failure patient is likely to survive on medical therapy alone. Due to the critical nature of liver failure and the resulting adverse effects on other organs, the hospitalization costs can be as high as $10,000 or more per day. While liver transplants have significantly increased the chances of survival for patients with liver failure, due to a severe shortage of donor livers, far less than 10% of liver failure patients received a transplant. Further, many liver failure patients were excluded from the waiting list because of alcohol or drug abuse, cancer, cardiovascular disease or inadequate post-operative support by family or others.

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At this time, based on the preliminary information available to us, we estimate that in the United States the cost to the provider of a single treatment with the SEPET™ therapy could be within a $2,000 to $4,000 range and that the respective cost of HepatAssist™ therapy could be approximately $15,000 to $20,000. Pricing in other world regions will likely vary. We anticipate that SEPET™ and/or HepatAssist™ therapy may have to be repeated up to an average of three to five times before a satisfactory clinical outcome is obtained, although fewer treatments per patient may be sufficient depending on the severity of disease. Based on these estimates and the above mentioned projections, the potential U.S. market for SEPET™ and HepatAssist™ is significant, with similar or possibly larger opportunities in some regions outside North America. However, we have not confirmed the potential size of these markets through an independent marketing study.

If we are successful in demonstrating the clinical utility of one or both of our product candidates, liver failure patients treated with our product candidates may be spared liver transplantation and the need for life-long immune-suppression. In addition, these patients can be treated outside of the intensive care unit and could be discharged from the hospital after shorter stays, all of which would reduce costs for healthcare providers and generate a demand for the use of these product candidates.

Sales, Marketing & Distribution

We currently do not have any agreements in place to market any of our product candidates if and when those products are commercially released, and we do not currently expect to establish an in-house marketing and sales program to distribute our products, if approved, in all regions of the world. We currently expect to outsource at least a portion of the sales, marketing and distribution of our products, if approved, including SEPET™ in Europe if we obtain CE Marking approval, to third parties who specialize in the sales, marketing and distribution of medical products. Alternatively, we may enter into strategic alliances with larger medical companies or license the rights to our product candidates to such larger companies. Our direct marketing and sales operations may, in these cases, eventually be directed towards supporting sales and distribution activities of any future partner. We currently expect that our products, if approved, will be marketed in at least North America and Europe, and possibly in Asia. We are currently seeking a commercialization partner for HepatAssist™ and plan to do the same for SEPET™, for some world regions, in the next two years.

We are also moving forward on the marketing authorization process in the European Union to receive CE Marking for our SEPET™ Liver Assist Device. CE Marking indicates that the product complies with the essential requirements of the relevant European health, safety and environmental protection legislation and allows sale of the product within the European Union (28 countries) and the European Free Trade Association (3 countries).

Manufacturing & Supply

With respect to cartridges that we expect will be needed for SEPET™, we expect that such cartridges will be commercially manufactured by NxStage, and the membrane inside the cartridge will be produced by Membrana. Additional disposable components, such as tubing connectors, may also be manufactured by third party subcontractors.

We currently do not have a finalized manufacturing arrangement for the cartridges used in the HepatAssist™ system. The HepatAssist™ cartridge is based on a conventional single-bundle hollow-fiber technology and a number of third party manufacturers could produce these cartridges for us under contract.

Supply Agreement with Membrana GmbH

On September 14, 2007, we entered into a supply agreement with Membrana, a company organized under the laws of Germany, for the provision of membranes for use in SEPET™. The agreement provides that following the first commercial sale of our product that contains Membrana membranes, Membrana will be our exclusive supplier of certain identified membranes for use in certain of our products. In addition, the agreement provides that following the first commercial sale of our product that contains Membrana membranes, Membrana shall not supply certain identified membranes for use in certain of our products to any other third party that will incorporate such membranes into a product whose composition, method of manufacture or method of use falls within a claim of one of our issued U.S. patents. Such exclusivity may last for up to five years based upon our fulfillment of certain minimum purchase thresholds. The agreement also provides for pre-established per-unit pricing of Membrana membranes, including progressive quantity discounts.

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The agreement will terminate following the six-year anniversary of the date of the first commercial sale of our product that contains Membrana membranes. The agreement may be terminated by either party upon 90 days notice in the event of a material breach by the other party that remains uncured for 90 days, or upon 60 days notice if the other party becomes insolvent or becomes the subject of any voluntary or involuntary proceeding in bankruptcy, liquidation, dissolution, receivership, or general assignment for the benefit of creditors that is not dismissed within 60 days. In addition, upon 60 days notice, we may terminate the agreement or terminate the exclusivity of the agreement, upon Membrana's failure to meet certain delivery requirements.

Manufacturing & Supply Agreement with NxStage Medical, Inc.

On October 19, 2007, we entered into a manufacturing & supply agreement with NxStage Medical, Inc. for the manufacture and supply of our SEPET™ Liver Assist Device for use in clinical trials and for commercial sale, if it is approved. The agreement provides that NxStage will be our exclusive manufacturer and supplier of the SEPET™ Liver Assist Device for commercial sale until the fifth anniversary of regulatory approval of the device. Under the agreement, NxStage will not manufacture, supply or sell our device to other parties and if NxStage manufactures, supplies or sells a competing product, as defined in the agreement, subject to certain exceptions, we may terminate the arrangement or convert it into a non-exclusive arrangement. In addition, if we purchase more than a certain number of devices in one calendar year, we will be subject to an annual minimum purchase requirement for the remainder of the agreement, which minimum will be subject to adjustment each year. The agreement provides for pre-established per-unit pricing, including quantity discounts and yearly adjustments.

The agreement will terminate upon the earlier of (i) the seventh anniversary of regulatory approval of the device or (ii) the seventh anniversary of the date of the agreement if regulatory approval of the device is not obtained by such date. The agreement may be terminated by either party (i) upon an extended prior notice period, (ii) upon a material breach by the other party that remains uncured, or (iii) upon notice if the other party becomes insolvent, files for bankruptcy, goes into liquidation or a receiver is appointed over all or a major part of the other parties' assets. In addition, we may terminate the agreement or terminate the exclusivity of the agreement, upon the occurrence of certain events.

Platforms used for SEPET™ and HepatAssist™ Devices

The kidney dialysis systems that will be used as a platform for SEPET™ therapy are not expected to require any technical adjustments. Since pressure monitors and hemoglobin detectors are standard in kidney dialysis systems, additional safety features are not likely to be required. Since the existing kidney dialysis instruments will not be affected, only the kidney dialysis cartridge will be replaced by a SEPET™ cartridge, we do not anticipate that consents will have to be obtained from the manufacturers of those open platform units, and no additional insurance is expected to be required to use those units. Nevertheless, manufacturers of such instruments may in the future have incentives to form partnerships with us for marketing and distribution of disposables, either as stand-alone products or as integrated systems of disposables for use on their instruments.

The platform we currently expect to use for the HepatAssist™ bioartificial liver therapy is a perfusion platform known as the PERFORMER. The PERFORMER is a multi-function integrated system capable of supporting extracorporeal blood/plasma/fluid circulation therapies that is manufactured by RanD S.r.l. (Italy) and distributed by Medtronic, Inc. The PERFORMER may be equipped with proprietary software, which has already been developed by RanD for us, and a tubing set for use with our HepatAssist™ system.

Cell Procurement

The pig liver cells will be harvested from young purpose-bred, pathogen-free pigs raised in a USDA certified facility specifically designed for biomedical research purposes. The liver cells will be harvested and cryopreserved under

aseptic conditions using our proprietary technology as well as commercially available equipment.

With regard to cell procurement and cryopreservation for bioartificial liver use, we do not yet own or lease our own specialized and certified bio-secure porcine liver cell manufacturing plant. Prior to Phase III clinical testing of HepatAssist™, we will determine whether to build a cell procurement facility to meet the expected requirements for commercial sales, which will likely require a substantial lease obligation and/or capital investment. This decision will be based on technical evaluation of the project as well as an economic evaluation of company performance.

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Patents and Proprietary Rights

Liver Assist Device Rights. Our intellectual property rights relating to the SEPET™ Liver Assist Device consist of a U.S. patent application plus pending foreign counterpart applications, a family of in-licensed U.S. patents plus foreign counterparts and pending patent applications, and certain related trade secrets.

Our U.S. patent application and foreign counterparts regarding our selective plasma filtration therapy (SEPET™) technology was filed in August 2002 with the U.S. Patent and Trademark Office and European Patent Office and subsequently in other countries and is currently under review for possible issuance. The applications contain claims for the use of various hemofiltration apparatus to treat liver failure and related diseases, as well as claims covering the hemofiltration apparatus itself.

In March 2007, we in-licensed a family of issued U.S. patents and various U.S. and foreign patent applications from Immunocept, LLC which include broad claims for methods of treating liver failure, multi-organ failure, multi-organ dysfunction syndrome, sepsis, septic shock, systemic inflammatory response syndrome, and related inflammatory disorders by selective blood filtration. The patents and applications relate to the use of blood filtration devices which remove, from the blood of patients with the above disease conditions, a broad spectrum of inflammatory and other disease mediators ranging from small molecules through intermediate size blood proteins with molecular weights up to the size of beneficial immunoglobulins. Such devices are capable of removing known “bad actor” compounds associated with liver failure, multi-organ failure and sepsis while preserving critical immunogloblins, clotting factors, lipids, and other beneficial large proteins in the circulating blood of afflicted patients. The patents and/or applications also relate to the combined use of replacement fluids including human serum albumin or combined uses of secondary selective plasma adsorption devices and/or certain classes of anti-inflammatory therapeutic drugs, and to apparatus suitable for the above uses.

Included in this in-licensed family are five issued U.S. patents, four pending U.S. patents, and two pending European patents. We will owe royalties on net sales of products which are covered by the license, including potentially the SEPET™ Liver Assist Device, ranging from low- to mid-single digit percentages of net sales. We will also owe maintenance fees and certain other minimum spending obligations under the license and may owe contingent milestone fees. Our fixed obligations under the license will total less than $500,000 over the next 4 years, a portion of which includes spending on future product development possibly leading to future sales revenues for us. Our contingent obligations under the license will total less than $500,000 over approximately the same period (dependent, however, on the pace of potential future patent issuances).

Bioartificial Liver Rights. We originally obtained exclusive, worldwide rights from Cedars-Sinai Medical Center and Spectrum Laboratories to seven issued U.S. patents protecting our bioartificial liver technology and accompanying cell procurement/cryopreservation technologies. One of the patents we licensed from Spectrum Laboratories, Inc., patent #5,015,585 “Method and Apparatus for Culturing and Diffusively Oxygenating Cells on Isotropic Membranes” has expired.

Our founders, Drs. Rozga and Demetriou, are co-inventors of both the semi-automated methods for large-scale production of isolated pig/human hepatocytes and cryopreservation of isolated pig/human hepatocytes. Currently, the key proprietary bioartificial liver technologies that we intend to use include the following licensed patents:

(1) A bioartificial liver system in which liver cell therapy and blood detoxification are integrated in a single fiber-in-fiber module (US Patent # 6,582,955 B2 for “Bioreactor With Application as Blood Therapy Device” issued in June 2003). We licensed this patent from Spectrum Laboratories.

(2)

Semi-automated large-scale liver cell procurement technology (US Patent #5,888,409 for “Methods for Cell Isolation and Collection” issued on March 30, 1999). We licensed this patent from Cedars-Sinai Medical Center.

(3) Liver cell procurement technology (US Patent #5,968,356 for “System for Hepatocyte Cell Isolation and Collection” issued on October 19, 1999, and related European Patent #0 830 099 for “Apparatus and Method for Cell Isolation and Collection”). We licensed this patent from Cedars-Sinai Medical Center.

(4) Liver cell cryopreservation technology (US Patent #6,140,123 for “Method for Conditioning and Cryopreserving Cells” issued on October 31, 2000). We licensed this patent from Cedars-Sinai Medical Center.

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Cedars-Sinai Medical Center Licenses. On June 19, 2001, we entered into an agreement with Cedars-Sinai Medical Center pursuant to which Cedars-Sinai granted us exclusive and worldwide rights to patents (2) through (4) above and to certain other technical information. These rights are and remain exclusive over the legal life of the various patents and include, subject to limitations, the right to sublicense the patent rights to third parties. In order to maintain its rights under the license, we were required to expend an aggregate amount of $1,760,000 in research and development expenses toward the development and promotion of products derived from the patents. As of the end of the fiscal year ended December 31, 2004, we had expended more than the minimum required $1,760,000 and have, therefore, fully satisfied the research and development expenditure requirement of this license. Cedars-Sinai Medical Center will have nonexclusive rights to any products derived from the patents. We will have to initially pay Cedars-Sinai Medical Center royalty fees equal to 1.5% of the gross sales price of royalty bearing products. From the third to tenth years of the license, the royalty fee percent will phase out evenly to 0%. Cedars-Sinai Medical Center is also a stockholder of this company. See Note 4 “Patent Rights” and 6 “Stockholder’s Equity - Junior Preferred Stock” of the financial statements included elsewhere in the prospectus.

Circe Biomedical Properties. In April 2004, we acquired from Circe Biomedical a portfolio of intellectual properties, including certain U.S. and foreign patents applicable to the HepatAssist™ bioartificial liver that Circe Biomedical was developing, including various patents related to the harvesting and handling of cells to be used in the bioartificial liver. We also acquired a number of other patents and rights related to Circe Biomedical’s bioartificial liver program that we will not be using, as well as patents on other technologies that we do not intend to pursue (such as patents to Circe Biomedical’s’s artificial pancreas system and three patents for cholesterol removal membranes). The following is a list of U.S. patents and patent applications that we acquired from Circe Biomedical and that we expect to maintain and use with our bioartificial liver system:

(1) Apparatus for Bioprocessing a Circulating Fluid. US Patent #5643794 (issued on July 1, 1997).

(2) Cryopreserved Hepatocytes and High Viability and Metabolic Activity. US Patent #5795711 (issued on August 18, 1998).

(3) Closed System for Processing Cells. US Patent #5858642 (issued on January 12, 1999).

(4) Cell Innoculation Device. US Patent #5,891,713 (issued on April 6, 1999).

(5) Method of Thawing Cryopreserved Cells. US Patent #5895745 (issued on April 20, 1999).

(6) High Flow Technique for Harvesting Mammalian Cells. US Patent #5912163 (issued on June 15, 1999).

(7) Removal of Agent From Cell Suspension. US Patent #6068775 (issued on May 30, 2000).

(8) Method for Cryopreserving Hepatocytes. US Patent #6136525 (issued on October 24, 2000).

Many of these issued U.S. patents have issued foreign counterparts including in Europe and in Japan.

Pending Patent Applications

Patent No.	Country	Title of Patent Application
515326/97	JP	Cryopreserved Hepatocytes & High Viability and Metabolic Activity

In addition to the foregoing Circe Biomedical patents, we acquired other rights to Circe Biomedical's HepatAssist™ bioartificial liver and related technologies, such as clinical and marketing data and over 400 manufacturing and quality assurance/control standard operation protocols that the FDA had previously reviewed. The Phase I through III clinical data that we acquired is expected to be useful in the preparation of future FDA submissions, since the data is based on pig liver cells from the same source. We also acquired an FDA Phase III IND for an enhanced version of the HepatAssist™ system. We are currently evaluating the possibility of conducting clinical studies of the HepatAssist™ system under a modified version of the FDA-approved Phase III IND protocol that we acquired, but must raise additional funds for this project. In connection with our acquisition of the foregoing patents, we also assumed Circe Biomedical's obligations to make the following royalty payments:

(a) We assumed the obligation to pay a royalty of 2% of "net sales" of any product that utilizes or incorporates the bioartificial liver patents, technology, inventions, and technical or scientific data that Circe Biomedical acquired from W.R. Grace & Co. pursuant to that certain Royalty Agreement, dated as of January 29, 1999, between Circe Biomedical (as a wholly-owned subsidiary of W.R. Grace & Co.) and Circe Acquisition Corp. Since the assets that we acquired from Circe Biomedical are expected to be used in the HepatAssist™ system, it is likely that we will have to pay this royalty with respect of sales of those parts of our HepatAssist™ Cell-Based Liver Support System that incorporate the W.R. Grace & Co. technology. Net sales include revenues received from our licensees and sublicensees from third parties. The obligation to pay royalties on the net sales of certain parts of our bioartificial liver systems will continue for at least ten years after the date on which we have obtained all required regulatory approvals and have received $100,000 of net sales and will expire after the ten year period or last patent right has terminated.

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(b) We are obligated to make royalty payments equal to 1% of the "net sales" price for that portion of a liver assist system sold by us or any of our sublicensees that comprises or incorporates a cartridge having a combination of porcine hepatocytes with hollow fiber membranes pursuant to that certain Restated License Agreement dated as of August 1, 1999 between Circe Biomedical and Cedars-Sinai Medical Center. Since our HepatAssist™ Cell-Based Liver Support System may utilize this type of cartridge, we will have to pay this royalty with respect of sales of all cartridges used in our bioartificial liver system. Our obligation to pay these royalties will begin with the first commercial sale of a bioartificial liver and continue thereafter for ten years. The royalty obligations shall continue until either ten years have elapsed from the first commercial sale date or the last to expire Circe Biomedical patent right has occurred. The royalty obligations expire after the ten year period has elapsed.

Under U.S. law, utility patents filed before June 8, 1995 are valid for 20 years from the filing date, or 17 years from date of issuance, whichever period is longer. Patents filed on or after June 8, 1995 are good for 20 years from the date of filing.

We have filed for U.S. trademark protection for our product candidate names, SEPET™ and HepatAssist™, which marks may become registered only upon commercialization of the products.

Research and Development

We spent approximately $2,300,000 on research and development during the fiscal year ended December 31, 2007, $1,823,000 on research and development during the fiscal year ended December 31, 2006 and $8,113,000 on research and development from inception (August 23, 2000) through December 31, 2007.

Competition

Our product candidates will compete with several other products and technologies that are currently used or are being developed by companies, academic medical centers and research institutions. These competitors consist of both large established companies as well as small, single product development stage companies. We expect substantial competition from these companies as they develop different and/or novel approaches to the treatment of liver disease. Some of these approaches may directly compete with the product candidates that we are currently developing.

Other therapies currently available include whole plasma exchange therapy, a procedure involving massive plasma transfusions that is being used primarily for correction of coagulopathy in patients with severe acute liver failure. In addition, two extracorporeal blood detoxification systems are currently available in the United States for treatment of liver failure: (1) the Adsorba column (Gambro, Hechingen, Germany) which contains activated charcoal and (2) the BioLogic-DT system (HemoCleanse, West Lafayette, Indiana) utilizing a mixture of charcoal, silica and exchange resins. Published data indicate that in limited, uncontrolled clinical trials utilizing these systems, only a transient improvement in neurological status was observed with no effect on patients' survival.

Other technologies offered by competing companies include the following:

Gambro's MARS system (molecular adsorbents recirculating system) combines the specific removal of the toxins of liver failure (albumin bound toxins) using a hollow-fiber cartridge impregnated with albumin, and sorbent columns placed in a dialysis circuit filled with 20% albumin solution. Albumin in the dialysate is "regenerated" during continuous recirculation in the closed loop system through sorbent columns (charcoal, resin). In addition, standard hemodialysis is performed during MARS treatment. In Europe, initial results in patients with acute liver failure were encouraging. In November 2004, Gambro announced that in a completed Phase II controlled study, which was conducted in 79 patients with acute exacerbation of chronic liver disease, MARS treatment improved hepatic encephalopathy and lowered blood levels of certain toxins implicated in the pathophysiology of liver failure.

Controlled clinical trials are needed to establish if the technology has any therapeutic value and also needed for registration of the product in the United States.

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Fresenius's PROMETHEUS system is a variant of the MARS system and also combines albumin dialysis with sorbent based blood detoxification and dialysis. In Europe, initial results in a small group of patients with acute exacerbation of chronic liver failure appeared encouraging. Controlled clinical trials are needed to establish if the technology has any therapeutic value and also needed for registration of the product in the United States.

Vital Therapies, Inc. uses technology developed by predecessor companies Hepatix and VitaGen, Inc. Its bioartificial liver ELAD® utilizes a cell line derived from human liver cancer tissue and a conventional hollow fiber bioreactor. A Phase I clinical study of the newest ELAD® version was reported at the annual meeting of the American Association for the Study of Liver Disease in November 2004 in Boston. In patients with acute liver failure, treatment with ELAD® had no effect on survival when compared to patients receiving standard therapy. In January 2006, Vital Therapies, Inc. announced that it had received guidance from the FDA to allow it to begin shipment of its ELAD® cartridges to China in anticipation of pivotal clinical trials scheduled to begin in China in early 2006. This trial has been reported to be initiated with early positive results.

Several other technologies could potentially compete with our bioartificial liver systems. These include xenotransplantation, which is the use of pig or other animal organs in humans, transplantation of isolated hepatocytes and ex vivo whole liver perfusions. While major progress has been made in the area of xenotransplantation and transgenic pigs are now available, attempts at xenotransplantation have resulted only in short-term survival of grafted organs. Ex vivo whole liver perfusion is impractical because it is cumbersome and requires maintenance of multiple pathogen-free pig colonies due to direct cell-cell contact between pig liver and human blood cells. Although transplantation of hepatocytes showed great promise in animal models of liver failure, there is no adequate supply source of human cells due to shortage of organ donors.

Government Regulation

In order to clinically test, manufacture, and market products for therapeutic use, we will have to satisfy mandatory procedures and safety and effectiveness standards established by various regulatory bodies. In the United States, the Public Health Service Act and the Federal Food, Drug, and Cosmetic Act, as amended, and the regulations promulgated thereunder, and other federal and state statutes and regulations govern, among other things, the testing, manufacture, labeling, storage, record keeping, approval, advertising, and promotion of our products. Product development and approval within this regulatory framework take a number of years and involve the expenditure of substantial resources. After laboratory analysis and preclinical testing in animals, an IDE (in the case of a medical device such as SEPET™) or an IND (in the case of a drug or a combination product such as HepatAssist™) is filed with the FDA to begin human testing. Typically, a two-phase (for devices) or a three-phase (for drugs/biologics) clinical testing program is then undertaken. In Phase I or feasibility phase, small clinical trials are conducted to determine the safety of the product candidate. In Phase II (typically not required for devices), clinical trials are conducted to assess safety and gain preliminary evidence of the efficacy of the product candidate. In Phase III or pivotal phase, clinical trials are conducted to provide sufficient data for the statistically valid proof of safety and efficacy. Variations on these paths can also occur, and repetition of particular phases may be required.

The time and expense required to perform this clinical testing can vary and be very substantial. No action can be taken to market any new device, drug or combination product in the United States until an appropriate marketing application has been approved by the FDA. Even after initial FDA approval has been obtained, further clinical trials may be required to provide additional data on safety and effectiveness and are required to gain clearance for the use of a product as a treatment for indications other than those initially approved. In addition, side effects or adverse events that are reported during clinical trials can delay, impede, or prevent marketing approval. Similarly, adverse events that are reported after marketing approval can result in additional limitations being placed on the product's use and, potentially, withdrawal of the product from the market. Any adverse event, either before or after marketing approval, can result in product liability claims against us.

In addition to regulating and auditing clinical trials, the FDA regulates and usually inspects equipment, facilities, and processes used in the manufacturing and testing of such products prior to providing approval to market a product. If, after receiving clearance from the FDA, a material change is made in manufacturing equipment, location, or process, additional regulatory review may be required. We will also have to adhere to current Good Manufacturing Practice and product-specific regulations enforced by the FDA through its facilities inspection program. The FDA also conducts regular, periodic visits to re-inspect equipment, facilities, laboratories, and processes following the initial approval. If, as a result of these inspections, the FDA determines that any equipment, facilities, laboratories, or processes do not comply with applicable FDA regulations and conditions of product approval, the FDA may seek civil, criminal, or administrative sanctions and/or remedies against us, including the suspension of the manufacturing operations.

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The FDA has separate review procedures for medical devices before such products may be commercially marketed in the United States. There are two basic review procedures for medical devices in the United States. Certain products may qualify for a Section 510(k) procedure, under which the manufacturer gives the FDA a Pre-Market Notification, or 510(k) Notification, of the manufacturer's intention to commence marketing of the product at least 90 days before the product will be introduced into interstate commerce. The manufacturer must obtain written clearance from the FDA before it can commence marketing the product. Among other requirements, the manufacturer must establish in the 510(k) Notification that the product to be marketed is "substantially equivalent" to another legally-marketed, previously existing product. If a device does not qualify for the 510(k) Notification procedure, the manufacturer must file a Pre-Market Approval Application. The Pre-Market Approval, or PMA, application requires more extensive pre-filing testing than the 510(k) Notification procedure and involves a significantly longer FDA review process, although the process is typically less than for a new drug or combination product (in part because of the two-phase versus three-phase clinical trial process described above).

SEPET™ may be regulated in the United States as a Class III medical device requiring a PMA review process, similar to medical devices for conducting plasma exchange; however, the FDA may classify it as a Class II device suitable for Section 510(k) approval described above. We are currently in the process of finalizing the design of and preparing for a pivotal clinical trial to demonstrate the safety and efficacy of SEPET™ in treating patients with chronic liver failure, which we believe will be required for FDA approval of SEPET™ in case of either a PMA or a 510(k) review process. Accordingly, it is likely to be subject to a two-step approval process starting with a submission of an IDE and subsequent amendments to conduct human studies, followed by the submission of a PMA application. The steps required before a product such as SEPET™ is likely to be approved by the FDA for marketing in the United States generally include (i) preclinical laboratory and animal tests; (ii) the submission to the FDA of an IDE for human clinical testing, which must become effective before human clinical trials may commence; (iii) adequate and well-controlled human clinical trials to establish the safety and efficacy of the product candidate; and (iv) the submission to the FDA of a product application. Preclinical tests include laboratory evaluation of the product candidate, as well as animal studies to assess the potential safety and efficacy of the product candidate. The results of the preclinical tests, together with analytical data, are submitted to the FDA as part of an IDE, which must become effective before human clinical trials may commence. The sponsor and the FDA must resolve any outstanding concerns before clinical trials can proceed. As discussed above, human clinical trials typically involve two sequential phases. Each trial must be reviewed and approved by the FDA before it can begin. The feasibility phase involves the initial introduction of the experimental product into human subjects to evaluate its safety and, if possible, to gain early indications of efficacy. The pivotal phase typically involves further evaluation of clinical efficacy and testing of product safety of a product in final form within an expanded patient population. The results of preclinical testing and clinical trials, together with detailed information on the manufacture and composition of the product, are submitted to the FDA in the form of an application requesting approval to market the product.

HepatAssist™ is classified by the FDA as a combination product comprising a biological therapeutic and a Class III medical device. Accordingly, it is subject to a two-step approval process starting with a submission of an IND to conduct human studies followed by the submission of applications for PMA and Biologic License Approval, or BLA. The steps required before a product such as HepatAssist™ may be approved by the FDA for marketing in the United States generally include (i) preclinical laboratory and animal tests; (ii) the submission to the FDA of an IND for human clinical testing, which must become effective before human clinical trials may commence; (iii) adequate and well-controlled human clinical trials to establish the safety and efficacy of the product candidate; and (iv) the submission to the FDA of a product application. Preclinical tests include laboratory evaluation of the product candidate, as well as animal studies to assess the potential safety and efficacy of the product candidate. The results of the preclinical tests, together with analytical data, are submitted to the FDA as part of an IND, which must become effective before human clinical trials may commence. The sponsor and the FDA must resolve any outstanding concerns before clinical trials can proceed. As discussed above, human clinical trials typically involve three sequential phases. Each trial must be reviewed and approved by the FDA before it can begin. Phase I involves the initial

introduction of the experimental product into human subjects to evaluate its safety and, if possible, to gain early indications of efficacy. Phase II usually involves a trial in a limited patient population to (i) evaluate preliminarily the efficacy of the product for specific, targeted indications; (ii) determine dosage tolerance and optimal dosage; and (iii) identify possible adverse effects and safety risks. Phase III typically involves further evaluation of clinical efficacy and testing of product safety of a product in final form within an expanded patient population. The results of preclinical testing and clinical trials, together with detailed information on the manufacture and composition of the product, are submitted to the FDA in the form of an application requesting approval to market the product. In the case of HepatAssist™, the product may be available for Phase III testing once the new platform to provide therapy (which we currently believe will be the PERFORMER) is found to be equivalent as a plasma perfusion apparatus to the original platform used in previous Phase I/II/III studies, and the FDA agrees to amend the previous IND to use the PERFORMER in a new Phase III clinical study. No assurance can be given that the results of the equivalency studies, when conducted, will show that the PERFORMER is a suitable platform for the HepatAssist™ Cell-Based Liver Support System. Finally, we will also have to re-establish an approved cell manufacturing capability or engage an approved third party provider of pig cells.

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In addition to obtaining FDA approval, we will have to obtain the approval of the various foreign health regulatory agencies of the foreign countries in which we may wish to market our products. In Europe, we plan on seeking approval to market SEPET™ under the CE Mark and related device regulations which often require less clinical testing than comparable approval processes in the United States. Label claims for medical devices marketed under the CE Mark are restricted to what has been proven in clinical trials. This can have an adverse impact on marketability of products.

Certain health regulatory authority (including those of Japan, France and the United Kingdom) have objected in the past, and other countries regulatory authorities could potentially object, to the marketing of any therapy that uses pig liver cells (which our bioartificial liver system is expected to utilize) due to safety concerns relating to porcine endogenous viruses. If we are unable to obtain the approval of the health regulatory authorities in any country, the potential market for our products will be reduced.

Employees

As of March 31, 2008, we employed four full-time employees and one part-time employee. We have also engaged five independent contractors under consulting agreements who provide services to us on a substantial part-time basis. Of the foregoing employees and contractors, three are primarily engaged in administration or management, and the remaining seven persons are involved in scientific research, product development, clinical development, manufacturing development and/or regulatory compliance matters. On March 29, 2008, we terminated one part-time employee, one full-time employee, and one independent contractor to help preserve our existing cash reserves. Our employees are not represented by a labor organization or covered by a collective bargaining agreement. We have not experienced work stoppages and we believe that our relationship with our employees is good.

Glossary of Terms

"**Dialysate**" is a cleansing liquid used in the two forms of dialysis—hemodialysis and peritoneal dialysis.

"**Dialysis**" is the process of cleaning wastes from the blood artificially. This job is normally done by the kidney and liver.

"**Extracorporeal**" means situated or occurring outside the body.

"**Ex vivo**" pertains to a biological process or reaction taking place outside of a living cell or organism.

"**Fulminant**" means occurring suddenly, rapidly, and with great severity or intensity.

"**Hemodialysis**" pertains to the use of a machine to clean wastes from blood after the kidneys have failed. The blood flows through a device called a dialyzer, which removes the wastes. The cleaned blood then flows back into the body.

"**Hemofiltration/Hemofiltrate "Hemofiltration**" is a continuous dialysis therapy in which blood is pumped through a hollow-fiber cartridge and the liquid portion of blood containing substances are removed into the sink compartment. The liquid portion of the blood ("hemofiltrate") is discarded.

"**Hepatitis**" is an inflammation of the liver caused by infectious or toxic agents.

"**Hepatocytes**" are the organ tissue cells of the liver.

"**IND**" means Investigational New Drug application.

"**IDE**" means Investigational Device Exemption.

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"**In vitro**" pertains to a biochemical process or reaction taking place in a test-tube (or more broadly, in a laboratory) as opposed to taking place in a living cell or organism.

"**In vivo**" pertains to a biological process or reaction taking place in a living cell or organism.

"**PERV**" means the porcine endogenous retrovirus.

"**Plasma**" is the clear, yellowish fluid portion of blood. Plasma differs from serum in that it contains fibrin and other soluble clotting elements.

"**Porcine**" means of or pertaining to swine; characteristic of the hog.

"**Regeneration**" means regrowth of lost or destroyed parts or organs.

"**Sorbent**" means to take in and adsorb or absorb.

Property

We currently maintain our research offices and laboratories in Medford, Massachusetts where we lease 1,783 square feet at $5,044 per month with a term of one year that was entered into on September 15, 2007. We maintain an administrative office in Pasadena, California and our corporate headquarters is located in Waltham, Massachusetts. The Pasadena office is leased on a month-to-month basis for approximately $1,500 per month for 640 square feet of space, and the Waltham office is leased for a term of six months ending on July 31, 2008 for approximately $3,900 per month for 600 square feet of space. We believe our laboratory and office space is adequate for our current operating needs.

Legal Proceedings

We are not a party to any material legal proceedings.

We may occasionally become subject to legal proceedings and claims that arise in the ordinary course of our business. It is impossible for us to predict with any certainty the outcome of pending disputes, and we cannot predict whether any liability arising from pending claims and litigation will be material in relation to our consolidated financial position or results of operations.

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DIRECTORS, EXECUTIVE OFFICERS, PROMOTERS AND CONTROL PERSONS

Directors and Executive Officers of Arbios Systems, Inc.

The following table sets forth the name, age and position held by each of our directors and executive officers as of March 29, 2008. Directors are elected at each annual meeting and thereafter serve until the next annual meeting (currently expected to be held during the third calendar quarter of 2008) at which their successors are duly elected by the stockholders.

Name	Age	Position
Shawn P. Cain	41	Interim President and Chief Executive Officer
Jacek Rozga, M.D., Ph.D.	59	Co-founder and Chief Scientific Officer
Scott L. Hayashi	36	Vice President of Administration, Chief Financial Officer and Secretary
Susan Papalia, RN, BSN	50	Vice President of Clinical Affairs
John M. Vierling, M.D., FACP (2)	62	Director, Chairman of the Board
Amy Factor	50	Director, Vice Chairman of the Board
Jack E. Stover (1)	55	Director
Thomas C. Seoh (1)(3)	50	Director
Thomas M. Tully (1)(2)(3)	62	Director
Dennis Kogod (2)(3)	48	Director

(1) Member of Audit Committee.
(2) Member of Compensation Committee
(3) Member of Nominating and Corporate Governance Committee.

Business Experience and Directorships

The following describes the backgrounds of our current executive officers and directors.

Shawn P. Cain. Mr. Cain is currently our Interim President and Chief Executive Officer and has served in this capacity since September 2007. He joined us as our Vice President of Operations in April 2005 and was previously employed by us as a part-time consultant from December 2003 to March 2005. From June 2003 to March 2005, Mr. Cain was employed at Becton Dickinson's Discovery Labware, Biologics Business, where he was responsible for the operation of two manufacturing facilities that produced over 900 biologics products. From January 1997 through May 2003, Mr. Cain was the Vice President of Operations for Circe Biomedical, Inc., where he was instrumental in the early development of the bioartificial liver technology, including development our HepatAssist™ product candidate.

Jacek Rozga, MD, Ph.D. Dr. Rozga is our co-founder and has been our Chief Scientific Officer since our organization in August 2000. Dr. Rozga served as our President from August 2000 until November 2005. From October 2003 until March 2005, Dr. Rozga also acted as our Chief Financial Officer. Dr. Rozga is Chairman and Chief Executive Officer of OncoTx, Inc., a private California corporation since October 2005. Since 1992, Dr. Rozga has been a professor of Surgery at UCLA School of Medicine. Dr. Rozga was previously a research scientist at Cedars-Sinai Medical Center from 1992 to 2005.

Scott L. Hayashi. Mr. Hayashi has been our Chief Financial Officer since March 2005. Mr. Hayashi joined us as our Chief Administrative Officer in February 2004, became our Secretary in July 2004 and was appointed as the Vice President of Administration in November 2004. Prior to joining us, Mr. Hayashi was a Manager of Overseas Development for Cardinal Health, Inc. from July 2000 to April 2002. Mr. Hayashi worked in finance, mergers and acquisitions for Northrop Grumman Corporation from March 1997 to July 2000 and Honeywell, Inc. from July 1994 to December 1996.

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Susan Papalia, RN, BSN. Ms. Papalia has been our Vice President of Clinical Affairs since November 2007 and brings more than 20 years of clinical research expertise to Arbios Systems, Inc. From August 2006 to August 2007, Ms. Papalia worked for Mitralign, Inc. (Tewksbury, MA) as Director of Clinical Affairs where she was successful in implementing a strategic clinical plan and obtaining international regulatory approvals for Mitralign's feasibility study of a novel percutaneous mitral valve repair system. From February 1990 to December 2005, Ms. Papalia worked for Boston Scientific, Inc. where she held management positions in United States and International Clinical Research.

John M. Vierling, M.D., FACP. Dr. Vierling has served as a director since February 2002. In April 2005, Dr. Vierling assumed the position of Professor of Medicine and Surgery, Director of Baylor Liver Health and Chief of Hepatology at the Baylor College of Medicine and Director, Advanced Liver Therapies at St. Luke's Episcopal Hospital in Houston, Texas. Dr. Vierling had been a Professor of Medicine at the David Geffen School of Medicine at UCLA from 1996 to 2005 and was the Director of Hepatology and Medical Director of Multi-Organ Transplantation Program at Cedars-Sinai Medical Center from 1990 until 2004. Dr. Vierling is also currently the President of the American Association for the Study of Liver Diseases. Dr. Vierling was the Chairman of the Board of the American Liver Foundation from 1994 to 2000, and the President of the Southern California Society for Gastroenterology from 1994 to 1995. Dr. Vierling has also been a member of numerous National Institutes of Health study sections and advisory committees, including the NIDDK Liver Tissue Procurement and Distribution Program. He is currently Chairman of the Data Safety Monitoring Board for the National Institute of Health, NIDDK ViraHep C Multicenter Trial. Dr. Vierling's research has focused on the immunological mechanisms of liver injury caused by hepatitis B and C viruses and autoimmune and alloimmune diseases.

Amy Factor. Ms. Factor was appointed as a director and Vice Chairman in September 2007. Prior to this, Ms. Factor served as a director from March 2005 until July 2006, and she was our interim Chief Executive Officer from April 2005 until November 2005. Ms. Factor has provided us with strategic and financial consulting services from November 2003 until the present. Since 1999, Ms. Factor has been President of AFO Advisors, LLC and the President of AFO Capital Advisors, LLC since 1996. Ms. Factor began her career with the public accounting firm KPMG and has been involved in the biotechnology industry since 1988 serving as the Chief Financial Officer of Immunomedics, Inc.

Jack E. Stover. Mr. Stover has served as a director since November 2004. Mr. Stover is also a director of PDI, Inc. and Antares Pharma, Inc. Mr. Stover was elected the President and Chief Operating Officer of Antares Pharma, Inc., (a public specialty pharmaceutical company) in July 2004. In September 2004, he was named President, CEO and was appointed as a director of that company. Prior thereto, for approximately two years Mr. Stover was Executive Vice President, Chief Financial Officer and Treasurer of SICOR, Inc., a Nasdaq traded injectable pharmaceutical company that was acquired by Teva Pharmaceutical Inc. Prior to that, Mr. Stover was Executive Vice President and Director for Gynetics, Inc., a private women's drug company, and the Senior Vice President, Chief Financial Officer, Chief Information Officer and Director for B. Braun Medical, Inc., a private global medical device and pharmaceutical company. For over 16 years, Mr. Stover was an employee and then a partner with PricewaterhouseCoopers (then Coopers & Lybrand), working in their bioscience industry division. Mr. Stover is also a CPA.

Thomas C. Seoh. Mr. Seoh has served as a director since March 2005. Since February 2006, Mr. Seoh has served as Chief Executive Officer of Faust Pharmaceuticals S.A., a clinical stage product company focused on drugs for neurological diseases and conditions. From 2005 to 2006, Mr. Seoh was Managing Director of Beyond Complexity Ventures, LLC, engaged in life science start-up and business development consulting activities. From 1995 to 2005, Mr. Seoh was Senior Vice President, Corporate and Commercial Development, and previously Vice President, General Counsel and Secretary, with NASDAQ-listed Guilford Pharmaceuticals Inc., engaged in research, development and commercialization of CNS, oncology and cardiovascular products. Previous positions included Vice President and Associate General Counsel of ICN Pharmaceuticals, Inc., General Counsel and Secretary of Consolidated Press U.S., Inc. and corporate attorney in the New York City and London offices of Lord Day & Lord,

Barrett Smith.

Thomas M. Tully. Mr. Tully has served as a director since May 2005. Since January 2006, Mr. Tully has served as Chairman and Chief Executive Officer of IDev Technologies, a medical device company focused on the development and marketing of innovative minimally invasive devices for the treatment of peripheral vascular disease. From August 2000 until April 2005, Mr. Tully was the President and Chief Executive Officer of Neothermia Corporation, a medical device company. Prior thereto, from June 1995 to April 2000, Mr. Tully was the President and Chief Executive Officer of Nitinol Medical Technologies, Inc., a medical device company. Mr. Tully was the President of Organogenesis Inc., from 1991 to 1994, and the President of Schneider (USA) Inc. from 1988 to 1991. From 1980 through 1988 he held various positions with Johnson & Johnson, including President, Johnson & Johnson Interventional Systems and Vice President Marketing and Sales at the Johnson & Johnson Cardiovascular division.

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Dennis L. Kogod. Mr. Kogod has served as a director since May 2005. Mr. Kogod is Division President, Western Group for Davita, Inc., a leading provider of dialysis services for patients suffering from chronic kidney failure. Mr. Kogod joined Davita when that company acquired Gambro Healthcare in October 2005. Prior to the acquisition, Mr. Kogod was President and Chief Operating Officer of the West Division of Gambro Healthcare USA, which he joined in July 2000. Before that, Mr. Kogod spent 13 years with Teleflex Corporation, a NYSE-traded company. While there, he served as Division President of the Teleflex Medical Group from December 1999 to July 2000.

There are no family relationships between any of the executive officers and directors.

Key Employees and Consultants

Ulrich Baurmeister, Ph.D. Dr. Baurmeister, age 64, has been our Chief Technology Officer since November, 2006. He is an expert in the field of semi-permeable polymer membrane development. From 1982 until 2000, Dr. Baurmeister served in various senior research and development, marketing and business development roles at Membrana GmbH, a leading supplier of semi-permeable membranes for dialysis and water purification, and its parent companies, Akzo Nobel and Acordis AG. He was most recently Managing Director, Business Development, overseeing Membrana's extension into new areas of business and technology. From 2000 to 2004, he continued at Membrana while also serving as Chief Executive Officer of MAT Adsorption Technologies GmbH & Co. KG, a Membrana spin-off venture that developed selective adsorption membrane technology. Dr. Baurmeister serves us on a half-time contractor basis, alongside his role as Advisor and Senior Visiting Scientist at the University Hospital Charite in Berlin, Germany. He also serves on the boards of the Society of Artificial Organs, the International Society of Blood Purification, and the International Society for Apheresis, and he participates in various working groups in the fields of biocompatibility of materials and organ failure.

Jan Stange, MD. Prof. Stange, age 43, has been our Senior Clinical Advisor since early 2006 and he is currently assisting us with our clinical development program. He is an expert in the clinical development of products for the treatment of liver failure, having managed pivotal phase, multi-center clinical trials for various liver failure indications in both the United States and Europe. From 2000 to 2005, he was a founder and the Medical Director of Teraklin GmbH, where he directed clinical trials of that company's MARS Liver Assist system, currently owned by Gambro AS. Since 1992, Dr. Stange has held academic, clinical and research positions at the University of Rostock, Germany and the University of California, San Diego and has founded other medical products companies in addition to Teraklin. He is currently Professor of Bioartificial Therapies at the University of Rostock. He serves on the board of directors of Forum Liver Dialysis. Dr. Stange serves us on a part-time contractor basis.

Independence of Directors and Audit, Compensation and Nominating Committees

A majority of our directors are "independent directors" as defined by the listing standards of the Nasdaq Stock Market LLC, and the Board of Directors has determined that our independent directors have no relationship with us that would interfere with the exercise of their independent judgment in carrying out the responsibilities of a director. The independent directors are Messrs. Kogod, Seoh, Stover and Tully and Dr. Vierling.

In February 2004, our Board of Directors established an Audit Committee. According to the Audit Committee Charter, the Audit Committee is to meet periodically with our management and independent accountants to, among other things, review the results of the annual audit and quarterly reviews and discuss the financial statements, recommend to the Board of Directors the independent accountants to be retained, and receive and consider the accountants' comments as to controls, adequacy of staff and management performance and procedures in connection with audit and financial controls. The Audit Committee is also authorized to review related party transactions for potential conflicts of interest. The Audit Committee consists of three persons and is currently composed of Mr. Stover, Mr. Seoh and Mr. Tully. Each of these individuals is a non-employee director and, in the opinion of our Board of

Directors, is independent as defined under the Nasdaq Stock Market's listing standards. Mr. Stover is our "audit committee financial expert" as defined under Item 407(d)(5) of Regulation S-K of the Exchange Act. The Audit Committee operates under a formal charter that governs its duties and conduct.

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In November 2004, we established a Compensation Committee and a Nomination Committee. The Compensation Committee is authorized to review and make recommendations to the full Board of Directors relating to the annual salaries and bonuses of our senior executive officers. The Compensation Committee evaluates management performance goals with the Chief Executive Officer periodically and considers appropriate bonuses and salary adjustments based on achievement of objectives. The Compensation Committee can retain outside consultants to assist in determining compensation if needed. The Compensation Committee is currently composed of Mr. Tully, Dr. Vierling and Mr. Kogod.

The Nomination Committee assists the Board of Directors in identifying qualified candidates, selecting nominees for election as directors at meetings of stockholders and selecting candidates to fill vacancies on our Board of Directors, and developing criteria to be used in making such recommendations. The Nomination Committee evaluates relevant experience and leadership skills for director candidates. The Nomination Committee is currently comprised of Mr. Tully, Mr. Seoh and Mr. Kogod.

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EXECUTIVE AND DIRECTOR COMPENSATION

Summary Compensation Table

The following table set forth certain information concerning the annual and long-term compensation for services rendered to us in all capacities for the fiscal years ended December 31, 2007 and 2006 of (i) all persons who served as our principal executive officer during the fiscal year ended December 31, 2007, (ii) our other two most highly compensated executive officers serving on December 31, 2007 whose total annual compensation during the fiscal year ended December 31, 2007 exceeded $100,000 and (iii) our former Vice President of Product Development. The principal executive officer and the other named officers are collectively referred to as the "Named Executive Officers."

Name and Principal Position	Year	Salary	Bonus	Option Awards(1)	All Other Compens-ation(2)	Total
Shawn P. Cain(3)	2007	$ 170,624	$ 10,000	$ 39,104	$ 4,818	$ 224,546
Interim President and Chief Executive Officer	2006	$ 160,000	$ -	$ 22,385	$ 5,505	$ 187,890
Jacek Rozga, M.D., Ph.D. (4)	2007	$ 155,000	$ -	$ 14,126	$ 23,177	$ 192,303
Chief Scientific Officer	2006	$ 183,333	$ -	$ 7,575	$ 6,220	$ 197,128
Scott L. Hayashi	2007	$ 121,250	$ 10,000	$ 23,662	$ 3,506	$ 158,418
Vice President of Administration, Chief Financial Officer and Secretary	2006	$ 109,167	$ -	$ 8,656	$ 3,759	$ 121,582
Walter C. Ogier(5)	2007	$ 221,252	$ -	$ 279,850	$ 64,115	$ 565,217
Former President and Chief Executive Officer	2006	$ 300,000	$ -	$ 289,114	$ 7,980	$ 597,094
David J. Zeffren(6)	2007	$ 76,354	$ -	$ 11,192	$ 41,256	$ 128,802
Former Vice President of Product Development	2006	$ 117,000	$ -	$ 3,939	$ 3,479	$ 124,418

(1) Represents the compensation expense incurred by us in the applicable fiscal year in connection with option grants to the applicable Named Executive Officer, calculated in accordance with SFAS 123R disregarding the estimate of forfeitures for service-based vesting conditions. See our audited consolidated financial statements included elsewhere in this prospectus for details as to the assumptions used to determine the fair value of the option awards. Our Named Executive Officers will not realize the value of these awards in cash until these awards are exercised and the underlying shares are subsequently sold.

(2) Includes company matching contributions in the Arbios 401(k) Plan and group life insurance premium gross ups, severance, and consulting fees.

(3) In September 2007, Mr. Cain was appointed as the Company's Interim President and Chief Executive Officer.

(4) Dr. Rozga worked as a consultant to the Company during January to March 2007 and was converted to full-time employment in April 2007. In Other Compensation for 2007, Dr. Rozga earned $10,000 as a consultant and had $3,500 of Company matching contributions in his 401(k) and had $9,677 of relocation allowance to move him from Los Angeles to Boston.

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(5) Mr. Ogier resigned from the Company in September 2007. Under the terms of Mr. Ogier's separation agreement, the Company will pay him $25,000 per month for a period of one year from November 2007. Other Compensation for 2007 includes $8,603 for accrued vacation, $50,000 for severance payments for November and December 2007, and $5,512 for Company matching contributions in the 401(k) Plan.

(6) Mr. Zeffren resigned as an executive officer and was converted from a full-time employee to a consultant in September 2007. Mr. Zeffren received $1,840 of company matching and $39,416 of consulting fees for the period September 2007 to December 2007.

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Outstanding Equity Awards At Fiscal Year-End

The following table sets forth the number and value of unexercised options held by the Named Executive Officers as of December 31, 2007. There were no exercises of options by the Named Executive Officers in fiscal year 2007.

Name	Number of Securities Underlying Unexercised Options Exercisable	Number of Securities Underlying Unexercised Options Unexercisable	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Unearned Options	Option Exercise Price	Option Expiration Date
Shawn P. Cain	30,000	70,000	100,000(1)	$ 0.49	9/21/2014
	21,875	128,125	150,000(2)	$ 0.82	5/10/2014
	24,792	45,208	70,000(3)	$ 0.85	7/31/2013
	30,000	-	30,000(4)	$ 1.65	3/31/2010
Jacek Rozga, M.D., Ph.D.	10,000	30,000	40,000(5)	$ 0.49	9/21/2014
	14,583	85,417	100,000(6)	$ 0.82	5/10/2014
	12,000	-	12,000(7)	$ 2.22	7/7/2012
	30,000	-	30,000(8)	$ 2.25	2/9/2011
	18,000	-	18,000(9)	$ 0.15	7/23/2012
	18,000	-	18,000(10)	$ 1.00	4/20/2010
Scott L. Hayashi	5,000	65,000	70,000(11)	$ 0.49	9/21/2014
	21,875	128,125	150,000(12)	$ 0.82	5/10/2014
	14,167	25,833	40,000(13)	$ 0.85	7/31/2013
	10,000	-	10,000(14)	$ 1.85	3/24/2010
	12,000	-	12,000(15)	$ 2.90	3/1/2010
	10,000	-	10,000(16)	$ 2.25	2/9/2009
Walter C. Ogier	60,000	-	60,000(17)	$ 0.80	7/12/2014
	500,000	-	500,000(18)	$ 1.85	11/8/2010
David J. Zeffren	5,000	25,000	30,000(19)	$ 0.49	9/21/2014
	15,000	-	15,000(20)	$ 0.82	5/10/2014
	12,000	-	12,000(21)	$ 2.90	3/1/2010
	10,000	-	10,000(22)	$ 2.00	2/9/2009

(1) The option to purchase 100,000 shares of common stock was granted on 09/21/2007 and vests based on achievement of performance based milestones during 2007 and 2008.

(2) The option to purchase 150,000 shares of common stock was granted on 05/10/2007 and vests on a pro-rata monthly basis for a period of 48 months from the date of grant.

(3) The option to purchase 70,000 shares of common stock was granted on 7/31/2006 and vests on a pro-rata monthly basis for a period of 48 months from the date of grant.

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(4) The option to purchase 30,000 shares of common stock was fully vested on 4/22/2007.

(5) The option to purchase 40,000 shares of common stock was granted on 9/21/2007 and vests according to achievement of performance based milestones during 2007 and 2008.

(6) The option to purchase 100,000 shares of common stock was granted on 5/10/2007 and vests on a pro-rata monthly basis for a period of 48 months from the date of grant.

(7) The option to purchase 12,000 shares of common stock was fully vested on 7/7/2006.

(8) The option to purchase 30,000 shares of common stock was fully vested on 2/11/2005.

(9) The option to purchase 18,000 shares of common stock was fully vested on 7/24/2003.

(10) The option to purchase 18,000 shares of common stock was fully vested on 4/21/2004.

(11) The option to purchase 70,000 shares of common stock was granted on 9/21/2007 and vests according to achievement of performance based milestones during 2007 and 2008.

(12) The options to purchase 150,000 shares of common stock were granted on 5/10/2007 and vest on a pro-rata monthly basis for a period of 48 months from the date of grant.

(13) The option to purchase 40,000 shares of common stock was granted on 7/31/2006 and vests on a pro-rata monthly basis for a period of 48 months from the date of grant.

(14) The option to purchase 10,000 shares of common stock was fully vested on 3/24/2006.

(15) The option to purchase 12,000 shares of common stock was fully vested on 2/1/2006.

(16) The option to purchase 10,000 shares of common stock was fully vested on 2/11/2005.

(17) Of the original stock grant to purchase 200,000 shares of common stock, 60,000 option shares are exercisable at 11/13/2007, and the remaining 140,000 option shares were cancelled per the terms of the severance agreement with Mr. Ogier.

(18) The option to purchase 500,000 shares of common stock became fully exercisable as of 11/13/2007.

(19) The option to purchase 30,000 shares of common stock was granted on 9/21/2007 and vests according to achievement of performance based milestones during 2007 and 2008.

(20) The option to purchase 15,000 shares of common stock was fully vested on 9/30/2007.

(21) The option to purchase 12,000 shares of common stock was fully vested on 2/1/2006.

(22) The option to purchase 10,000 shares of common stock was fully vested on 8/11/2004.

Employment Contracts and Termination of Employment, and Change-In-Control Arrangements

In September 2007, we appointed Mr. Cain our Interim President and Chief Executive Officer. Mr. Cain remained an at-will employee under our existing 2005 agreement with him. In connection with this appointment he will receive an annual salary of $185,000 and was granted options to purchase 100,000 shares of our common stock at an exercise price of $0.49 which vest in accordance with predefined milestones along specific timeframes. Pursuant to our 2005 agreement with Mr. Cain, we granted Mr. Cain a five-year incentive stock option to purchase 30,000 shares of our common stock. The options have an exercise price of $1.65 per share and vest in monthly installments of 1,250 shares commencing on May 1, 2005. The agreement also provides that we will match Mr. Cain's contributions to a 401(k) plan at a rate of 50% up to 6% of total compensation per year. The agreement also offers to pay Mr. Cain's COBRA costs for an 18-month period commencing on April 15, 2005. Mr. Cain is also eligible to receive an annual discretionary cash bonus of up to 15% of his base annual salary. The agreement provides that Mr. Cain's employment is "at will" and can be terminated at any time. If we wish to terminate his employment, we must provide him three months' notice.

On April 27, 2007, we appointed Dr. Jacek Rozga, M.D., Ph.D. to serve as our Chief Scientific Officer. Pursuant to Dr. Rozga's offer letter he will receive an annual base salary of $200,000. In addition, he will be eligible to receive an annual cash bonus of up to 15% of his base salary for each calendar year that he is employed by us. The final amount of the annual bonus will be determined at the discretion of the Chief Executive Officer and Compensation Committee based upon conditions and criteria that he considers to be appropriate. The bonus, if paid, generally will be paid within the first quarter of each calendar year, but the timing of any bonus payment will ultimately depend upon an assessment of our financial condition and other circumstances by management. Dr. Rozga's performance will be reviewed annually by the Chief Executive Officer, and at that time adjustments in his compensation may be made. He will be eligible for reimbursement of up to $10,000 of the documented cost of moving his household belongings from California to Massachusetts. Dr. Rozga will be an at-will employee and his employment with us may be terminated at any time by him or us, with or without cause.

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We have entered into an agreement with Scott Hayashi, dated March 29, 2005, pursuant to which Mr. Hayashi serves as Chief Financial Officer. The agreement provides for a salary of $105,000 per year that is subject to annual review and adjustment. Mr. Hayashi is eligible to receive an annual discretionary bonus of up to 15% of his salary based on achieving certain goals. The agreement also offered Mr. Hayashi a five-year qualified stock option to purchase 10,000 shares of our common stock. The shares are exercisable at $1.85 per share; 50% of the shares vested immediately and 50% of the shares vested one year from the grant date of the option. The agreement provides that Mr. Hayashi's employment is "at will" and can be terminated at any time.

On November 13, 2007, we entered into a separation agreement with our former President and Chief Executive Officer, Walter C. Ogier. Pursuant to the terms of the separation agreement, Mr. Ogier acknowledged that his employment and all positions held by him were terminated as of September 21, 2007 (the "Separation Date"). As consideration for Mr. Ogier performing consulting services for us for a period of 12 months following the Separation Date, we will pay Mr. Ogier monthly payments of $25,000 and will allow Mr. Ogier to continue to utilize our health insurance plan for the lesser of 12 months following the Separation Date or the time that he becomes eligible to receive health insurance from another employer. In addition, certain of Mr. Ogier's unvested options vested and will remain exercisable for a period of 12 months following the Separation Date. Furthermore, Mr. Ogier agreed to release us from any and all legal claims or causes of action that he may have had arising from any event occurring prior to the Separation Date.

On November 8, 2007, we entered into a consulting agreement with David Zeffren, our former Vice President of Product Development. Pursuant to the terms of the consulting agreement, we will pay Mr. Zeffren $10,400 per month and Mr. Zeffren will advise and support us with our regulatory and clinical affairs. Mr. Zeffren will also be reimbursed for reasonable and customary expenses incurred by him on our behalf. During the term of the consulting agreement and for a period of one year following the termination of the consulting agreement, Mr. Zeffren has agreed not to compete with us in the field the commercialization of medical devices or cell therapies for the treatment of liver disease, viral hepatitis or septic shock. Both we and Mr. Zeffren have the right to terminate the consulting agreement at anytime upon written notice.

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Director Compensation

Name	Fees Earned or Paid in Cash	Stock Awards(2)	Option Awards(1)	All Other Compensation	Total
John M.Vierling, M.D., FACP(3)	-	$ 29,610	$ 7,660	-	$ 37,270
Jack E. Stover(4)	-	$ 29,610	$ 7,660	-	$ 37,270
Thomas C. Seoh(5)	-	$ 16,203	$ 9,576	-	$ 25,779
Thomas M. Tully(6)	-	$ 16,203	$ 11,491	-	$ 27,694
Dennis Kogod(7)	-	$ 19,766	$ 9,576	-	$ 29,342
Amy Factor(8)	$ 47,500	$ 24,500	-	-	$ 72,000

1. Represents the compensation expense incurred by us in 2007 in connection with awards of restricted stock to the director, calculated in accordance with SFAS 123R, disregarding the estimate of forfeitures for service-based vesting conditions, and thus includes amounts from awards in and prior to 2007. See our audited financial statements included elsewhere in this prospectus for details as to the calculation based on the closing price of the Company's common stock on the date of issuance used to determine the fair value of the restricted stock awards. Our directors will not realize the value of these awards in cash until these awards are fully vested and the shares are subsequently sold.

2. Represents the compensation expense incurred by us in 2007 in connection with option grants to the director, calculated in accordance with SFAS 123R, disregarding the estimate of forfeitures for service-based vesting conditions, and thus includes amounts from awards in and prior to 2007. See our audited financial statements included elsewhere in this prospectus for details as to the calculation based on the closing price of the Company's common stock on the date of issuance used to determine the fair value of the option awards. Amounts include aggregate charge to financial statements. Our directors will not realize the value of these awards in cash until these awards are exercised and the underlying shares are subsequently sold. All options awarded to Directors in 2007 remained outstanding at fiscal year-end.

3. As of December 31, 2007, the last day of our fiscal year, there are outstanding 67,188 shares of restricted stock, 26,563 of which are vested, and options for the purchase of 210,957 shares of common stock, 93,290 of which are vested, issued to John M. Vierling, M.D., FACP. During 2007, Dr. Vierling received (1) options to purchase 20,000 shares of common stock with a grant date fair value of $7,660, and (2) a restricted stock grant of 40,625 shares of common stock with a grant date fair value of $33,719.

4. As of December 31, 2007, the last day of our fiscal year, there are outstanding 67,188 shares of restricted stock, 26,563 of which are vested, and options for the purchase of 124,957 shares of common stock, 123,290 of which are vested, issued to Jack E. Stover. During 2007, Mr. Stover received (1) options to purchase 20,000 shares of common stock with a grant date fair value of $7,660, and (2) a restricted stock grant of 40,625 shares of common stock with a grant date fair value of $33,719.

5. As of December 31, 2007, the last day of our fiscal year, there are outstanding 36,719 shares of restricted stock, 14,844 of which are vested, and options for the purchase of 117,856 shares of common stock, 115,773 of which are vested, issued to Thomas C. Seoh. During 2007, Mr. Seoh received (1) options to purchase 25,000 shares of common stock with a grant date fair value of $9,576, and 2) a restricted stock grant of 21,875 shares of common stock with a grant date fair value of $18,156.

6. As of December 31, 2007, the last day of our fiscal year, there are outstanding 36,719 shares of restricted stock, 14,844 of which are vested, and options for the purchase of 133,613 shares of common stock, 131,113 of which are vested, issued to Thomas M. Tully. During 2007, Mr. Tully received (1) options to purchase 30,000 shares of

common stock with a grant date fair value of $11,491 and (2) a restricted stock grant of 21,875 shares of common stock with a grant date fair value of $18,156.

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7. As of December 31, 2007, the last day of our fiscal year, there are outstanding 31,650 shares of restricted stock, 22,275 of which are vested, and options for the purchase of 100,294 shares of common stock, 98,211 of which are vested, issued to Dennis Kogod. During 2007, Mr. Kogod received (1) options to purchase 25,000 shares of common stock with a grant date fair value of $9,576 and (2) a restricted stock grant of 24,619 shares of common stock with a grant date fair value of $20,281.

8. As of December 31, 2007, the last day of our fiscal year, there are outstanding 144,118 shares of restricted stock, 44,118 of which are vested, options for the purchase of 520,000 shares of common stock, all of which are vested, issued to Amy Factor, and warrants to purchase 300,000 shares of common stock. During 2007, Ms. Factor received (1) cash compensation of $47,500, (2) a restricted stock grant of 100,000 shares of common stock with a grant date fair value of $49,000 for services rendered as a director and Vice Chairman of the Company. Additionally, Ms. Factor earned $40,000 in cash compensation and received a restricted stock grant of 44,118 shares of common stock with a grant date fair value of $22,500 for services rendered as a consultant to the Company during FY 2007 (See also footnote 1 above).

Compensation of Board of Directors

Equity Compensation

On March 24, 2005, the Board of Directors approved a plan for compensating our directors. On May 16, 2005, the Board of Directors amended the plan for the 2005 fiscal year and later renewed the plan on January 11, 2006. The plan consists of the following:

Non-employee directors will receive annual grants of stock options to purchase 15,000 shares of our common stock. The options will be granted on January 1 of each year. The options will have a term of seven years and will have an exercise price equal to the market price on the trading day preceding the grant date. The options will vest in equal monthly installments over the 12-month period following the grant date.

Upon election to the Board of Directors, each new director will be granted a stock option to purchase 30,000 shares of our common stock. The option will have a term of seven years and will have an exercise price equal to the market price on the trading day preceding the date of grant. One half of the options will vest on the date of grant, and the balance will vest on the first anniversary of the grant date.

On January 1 of each year, committee members receive an annual grant of a stock option to purchase 5,000 shares of common stock for each committee for which they are a member. The option will have a term of seven years and will have an exercise price equal to the market price on the trading day preceding the grant date. The option will vest in equal monthly installments over the 12-month period following the grant date.

On June 30, 2006, the Board of Directors resolved to suspend cash compensation discussed below for independent members and to issue restricted stock instead to help us maintain our cash reserves.

Cash Compensation

Effective March 24, 2005, all non-employee directors were paid $1,500 for each day they attend a Board of Directors meeting in person ($1,000 if they attend a meeting by telephone), and $500 for each telephonic Board of Directors meeting ($1,000 for each telephonic meeting if the meeting lasts longer than two hours). In addition, the Chairman of the Board and Chairman of the Audit Committee would receive $25,000 annually (payable quarterly), and the Chairman of the Nomination Committee and the Chairman of the Compensation Committee would receive $10,000 annually (payable quarterly). Effective June 30, 2006, this policy was amended and we terminated all cash

compensation payments to non-employee directors and issued equivalent amounts of restricted stock in lieu of cash compensation. We reimburse all directors for any expenses incurred by them in attending meetings of the Board of Directors.

Compensation in 2007

During the fiscal year ended December 31, 2007, each of our directors was granted an annual grant of stock options to purchase 15,000 shares of common stock at an exercise price of $0.51 per share. In addition, members of committees of the Board or Directors received an annual grant of stock options to purchase 5,000 shares of common stock at an exercise price of $0.51 per share for each committee they are a member for the first half of 2007. All director and committee member options were granted at the market price on the day preceding the date of grant and have a term of seven years and vest on a monthly basis from the date of grant. In May 2007, a director received a restricted stock grant of 15,244 shares of common stock for additional consulting services rendered to the Company. In July 2007, all non-employee members of the Board of Directors received a total of 134,375 shares of restricted stock in lieu of cash compensation for services rendered during the second half of 2007 for serving on board committees and attendance at meetings. In September 2007, a newly appointed director received a restricted stock grant of 100,000 shares of common stock and cash compensation of $47,500 for serving as Vice Chairman of the Board of Directors.

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SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information regarding beneficial ownership of our common stock as of March 20, 2008 (a) by each person known by us to own beneficially 5% or more of any class of our common stock, (b) by each of our Named Executive Officers, (c) by each of our directors and (d) by all of our current executive officers and directors as a group. As of March 20, 2008 there were 25,603,461 shares of our common stock issued and outstanding. Unless otherwise noted, we believe that all persons named in the table have sole voting and investment power with respect to all the shares beneficially owned by them. Except as otherwise indicated, the address of each stockholder is c/o Arbios Systems, Inc. at 1050 Winter Street, Suite 1000, Waltham, MA 02451.

Name and Address of Beneficial Owner	Shares Beneficially Owned (1)	Percentage of Class
Jacek Rozga, M.D., Ph.D.	2,165,083(2)	8.4%
Achilles A. Demetriou, M.D., Ph.D and Kristin P. Demetriou	2,500,000(3)	9.8%
John M. Vierling, M.D., FACP	274,395(4)	1.1%
Amy Factor	1,102,868(5)	4.2%
Walter C. Ogier(6)	565,000(6)	2.2%
Jack E. Stover	189,395(7)	*
Thomas C. Seoh	148,325(8)	*
Dennis Kogod	135,694(9)	*
Thomas Tully	161,582(10)	*
Scott L. Hayashi	107,355(11)	*
David Zeffren(12)	92,000(12)	*
Shawn Cain	131,250(13)	*
LibertyView Funds, LP 111 River Street - Suite 1000 Hoboken, NJ 07030-5776	1,851,488(14)	7.0%
LibertyView Special Opportunities Fund, LP 111 River Street - Suite 1000 Hoboken, NJ 07030-5776	2,331,008(15)	8.8%
Neuberger Berman LLC 111 River Street - Suite 1000 Hoboken, NJ 07030-5776	4,842,428(16)	17.7%

MicroCapital Fund LP 623 Fifth Avenue, Suite 2502 New York, New York 10022	3,000,000(17)	11.1%
Dolphin Offshore Partners, LP 129 East 17th Street New York, New York 10003	2,000,000(18)	7.5%
All current executive officers and directors as a group (10 persons)	4,430,947(19)	16.2%

* Less than 1%.

(1) Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission and generally includes voting or investment power with respect to securities. Shares of common stock subject to options, warrants and convertible securities currently exercisable or convertible, or exercisable or convertible within 60 days, are deemed outstanding, including for purposes of computing the percentage ownership of the person holding such option, warrant or convertible security, but not for purposes of computing the percentage of any other holder.

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(2) Consists of (i) 2,050,000 shares of common stock owned by Jacek Rozga and Joanna Rozga JTTEN and (ii) currently exercisable options to purchase 115,083 shares of common stock.

(3) Consists of 2,500,000 shares of common stock owned by the A & K Demetriou Family Trust, of which Achilles A. Demetriou, M.D., Ph.D. and Kristin P. Demetriou each are co-trustees with the right to vote or dispose of the trust's shares.

(4) Consists of (i) 26,563 shares of common stock, (ii) currently exercisable options to purchase 207,207 shares of common stock and (iii) 40,625 shares of restricted common stock.

(5) Consists of (i) currently exercisable options to purchase 518,750 shares of common stock, (ii) warrants to purchase 200,000 shares exercisable by AFO Advisors, LLC, (iii) warrants to purchase 100,000 shares exercisable by AFO Capital Advisors, LLC, (iv) 5,000 shares owned by the Jay H. Oyer and Amy Factor Foundation, (v) 5,000 shares owned by the Melissa H. Oyer Trust, (vi) 5,000 shares owned by the Zachary D. Oyer Trust, (vii) 100,000 shares owned by AFO Capital Advisors, LLC, (viii) 25,000 shares of performance based restricted common stock, (ix) 100,000 shares of restricted common stock owned by AFO Advisors LLC, and (x) 44,118 shares of common stock. Amy Factor is the owner and President of AFO Capital Advisors, LLC and AFO Advisors, LLC. She is also the trustee of The Jay H. Oyer and Amy Factor Family Foundation, The Melissa H. Oyer Trust, and The Zachary D. Oyer Trust and has voting and investment control of the securities of these entities.

(6) Consists of (i) 5,000 shares of common stock, (ii) currently exercisable options to purchase 560,000 shares of common stock. Mr. Ogier is our former President and Chief Executive Officer.

(7) Consists of (i) 27,563 shares of common stock, (ii) currently exercisable options to purchase 121,207 shares of common stock and (iii) 40,625 shares of restricted common stock.

(8) Consists of (i) 14,844 shares of common stock, (ii) currently exercisable options to purchase 111,606 shares of common stock and (iii) 21,875 shares of common stock.

(9) Consists of (i) 32,275 shares of common stock, (ii) currently exercisable options to purchase 94,044 shares of common stock and (iii) 9,375 shares of restricted common stock.

(10) Consists of (i) 14,844 shares of common stock, (ii) currently exercisable options to purchase 124,863 shares of common stock and (iii) 21,875 shares of common stock.

(11) Consists of (i) 4,615 shares of common stock owned by Hannah Hayashi, Scott Hayashi's wife, (ii) 3,000 shares of common stock owned by Scott Hayashi, (iii) currently exercisable options held by Scott Hayashi to purchase 95,125 shares of common stock and (iv) warrants to purchase 4,615 shares of common registered in the name of Hannah Hayashi.

(12) Consists of (i) 25,000 shares owned by Mira Zeffren, David Zeffren's wife, (ii) warrants to purchase 25,000 shares registered in the name of Mira Zeffren and (iii) currently exercisable options held by David Zeffren for the purchase of 42,000 shares of common stock. Mr. Zeffren is our former Vice President of Product Development.

(13) Consists of currently exercisable options to purchase 131,250 shares of common stock.

(14) Consists of (i) 1,185,243 shares of common stock and (ii) currently exercisable warrants to purchase 666,245 shares of common stock. LibertyView Funds, LP, LibertyView Special Opportunities Fund, LP and Trust D for a Portion of the Assets of the Kodak Retirement Income Plan have a common investment

advisor, Neuberger Berman, LLC, that has voting and dispositive power over the shares held by them, which is exercised by Richard A. Meckler. Since they have hired a common investment advisor, these entities are likely to vote together. Additionally, there may be common investors within the different accounts managed by the same investment advisor. The General Partner of LibertyView Special Opportunities Fund, LP and LibertyView Funds, LP is Neuberger Berman Asset Management, LLC, which is affiliated with Neuberger Berman, LLC, a registered broker-dealer. LibertyView Capital Management, a division of Neuberger Berman, LLC, is affiliated with the General Partner of the LibertyView Health Sciences Fund, LP. The shares were purchased for investment in the ordinary course of business and at the time of purchase, there were no agreements or understandings, directly or indirectly, with any person to distribute the shares. Trust D for a Portion of the Assets of the Kodak Retirement Income Plan is not in any way affiliated with a broker-dealer.

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(15) Consists of (i) 1,424,912 shares of common stock and (ii) currently exercisable warrants to purchase 906,096 shares of common stock. LibertyView Special Opportunities Fund, LP, LibertyView Funds, LP and Trust D for a Portion of the Assets of the Kodak Retirement Income Plan have a common investment advisor, Neuberger Berman, LLC, that has voting and dispositive power over the shares held by them, which is exercised by Richard A. Meckler. Since they have hired a common investment advisor, these entities are likely to vote together. Additionally, there may be common investors within the different accounts managed by the same investment advisor. The General Partner of LibertyView Special Opportunities Fund, LP and LibertyView Funds, LP is Neuberger Berman Asset Management, LLC, which is affiliated with Neuberger Berman, LLC, a registered broker-dealer. LibertyView Capital Management, a division of Neuberger Berman, LLC, is affiliated with the General Partner of the LibertyView Health Sciences Fund, LP. The shares were purchased for investment in the ordinary course of business and at the time of purchase, there were no agreements or understandings, directly or indirectly, with any person to distribute the shares. Trust D for a Portion of the Assets of the Kodak Retirement Income Plan is not in any way affiliated with a broker-dealer.

(16) Includes shares of common stock and currently exercisable warrants to purchase shares of common stock held by LibertyView Funds, LP and LibertyView Special Opportunities Fund, LP (see footnotes 14 and 15). Also includes (i) 432,843 shares of common stock held by Trust D for a Portion of the Assets of the Kodak Retirement Income Fund and (ii) currently exercisable warrants to purchase 213,238 shares of common stock held by Trust D for a Portion of the Assets of the Kodak Retirement Income Plan and (iii) 13,851 shares of common stock held by LibertyView Health Sciences Fund, LP. LibertyView Funds, LP, LibertyView Special Opportunities Fund, LP and Trust D for a Portion of the Assets of the Kodak Retirement Income Plan have a common investment advisor, Neuberger Berman, LLC, that has voting and dispositive power over the shares held by them, which is exercised by Richard A. Meckler. Since they have hired a common investment advisor, these entities are likely to vote together. Additionally, there may be common investors within the different accounts managed by the same investment advisor. The General Partner of LibertyView Special Opportunities Fund, LP and LibertyView Funds, LP is Neuberger Berman Asset Management, LLC, which is affiliated with Neuberger Berman, LLC, a registered broker-dealer. LibertyView Capital Management, a division of Neuberger Berman, LLC, is affiliated with the General Partner of the LibertyView Health Sciences Fund, LP. The shares were purchased for investment in the ordinary course of business and at the time of purchase, there were no agreements or understandings, directly or indirectly, with any person to distribute the shares. Trust D for a Portion of the Assets of the Kodak Retirement Income Plan is not in any way affiliated with a broker-dealer.

(17) Ian P. Ellis has voting and investment control over the securities owned by MicroCapital Fund LP. Consists of 1,500,000 of common stock and warrants to purchase 1,500,000 shares of common stock.

(18) Consists of 1,000,000 share of common stock and warrants to purchase 1,000,000 shares of common stock.

(19) Consists of the shares of common stock set forth in footnotes 2, 4, 5, 7 through 11 and 13 and currently exercisable options to purchase 15,000 shares of common stock held by one executive officer not named in the table.

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SELLING STOCKHOLDERS

Selling Stockholder Table

This prospectus relates to (i) the sale or other disposition of up to 7,478,462 shares of our currently outstanding shares of common stock that are owned by some of our stockholders, (ii) 8,055,077 shares of our common stock issuable upon the exercise of currently outstanding common stock purchase warrants held by some of our stockholders, and (iii) 2,050,000 shares of our common stock owned by Jacek Rozga, M.D., Ph.D, our co-founder and Chief Scientific Officer, that we are contractually obligated to include in this prospectus. The shares to be offered by the selling stockholders are "restricted" securities under applicable federal and state securities laws and are being registered under the Securities Act to give the selling stockholders the opportunity to publicly sell or otherwise dispose of those shares. The registration of these shares does not require that any of the shares be offered or sold by the selling stockholders. The shares included in this prospectus may be disposed of by the selling stockholders or their transferees on any stock exchange, market, or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. We will not control or determine the price at which a selling stockholder decides to dispose of its shares.

No estimate can be given as to the amount or percentage of our common stock that will be held by the selling stockholders after any sales or other dispositions made pursuant to this prospectus because the selling stockholders are not required to sell any of the shares being registered under this prospectus. The following table assumes that the selling stockholders will sell all of the shares listed in this prospectus. The percentages in the following table are based on 25,144,086 shares of our common stock issued and outstanding as of May 31, 2007.

The following table sets forth the beneficial ownership of the selling stockholders:

	Beneficial Ownership Before Offering[1]			Beneficial Ownership After Offering[1]	
Selling Stockholder	Number of Shares	Percent	Number of Shares Being Offered	Number of Shares	Percent
MicroCapital Fund LP(2)	3,000,000(3)	11.26%	3,000,000	-	*
MicroCapital Fund LP(2)	1,000,000(4)	3.90%	1,000,000	-	*
Dolphin Offshore Partners, L.P.(5)	2,000,000(6)	7.65%	2,000,000	-	*
Palo Alto Healthcare Master Fund, L.P.(7)	286,200(8)	1.13%	286,200	-	*
Palo Alto Healthcare Fund II, L.P.(7)	21,600(9)	*	21,600	-	*
Palo alto Fund II, L.P.(7)	307,677(10)	1.22%	307,677	-	*
Micro Cap Partners, L.P.(7)	283,000(11)	1.12%	283,000	-	*
UBTI Free, L.P.(7)	24,600(12)	*	24,600	-	*
Moss forest Ventures(13)	923,077(14)	3.60%	923,077	-	*
Bristol Investment Fund, Ltd.(15)	923,077(16)	3.60%	923,077	-	*
Triremes 9 LLC(17)	923,077(18)	3.60%	923,077	-	*
David B. Musket(19)	1,146,615(20)	4.43%	1,146,615	-	*
V2M Life Sciences Fund, L.P.(21)	800,000(22)	3.13%	800,000	-	*
Alpha Capital Austalt(23)	769,231(24)	3.01%	769,231	-	*
Philip Klein	769,231(25)	3.01%	769,231	-	*
Balestra Spectrum Partners, LLC(26)	615,385(27)	2.42%	615,385	-	*
LibertyView Funds, LP(28)	123,077(29)	*	123,077	-	*

LibertyView Special Opportunities Fund, LP(30)	92,308(31)	*	92,308	-	*
Trust D for a portion of the assets of the Kodak Retirement Income Plan(32)	92,308(33)	*	92,308	-	*
Morris Klein	307,692(34)	1.22%	307,692	-	*
Westfield Capital Microcap Fund(35)	307,692(36)	1.22%	307,692	-	*
Centurion Capital LLC(37)	153,846(38)	*	153,846	-	*
Cahr 1999 Dynastic Trust, Michael E. Cahr, Trustee(39)	153,846(40)	*	153,846	-	*

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Selling Stockholder	Beneficial Ownership Before Offering[1] Number of Shares	Percent	Number of Shares Being Offered	Beneficial Ownership After Offering[1] Number of Shares	Percent
Alexander & Judith Angerman TTE 98 Family Trust(41)	153,846(42)	*	153,846	-	*
T Morgen Capital LLC(43)	76,923(44)	*	76,923	-	*
Thomas J. Quinlan	40,000(45)	*	40,000	-	*
Hannah Hayashi(46)	9,231(47)	*	9,231	-	*
Richard Wehby(48)	230,000(49)	*	230,000	-	*
Jacek Rozga, M.D., Ph.D.(50)	2,165,083(50)	8.6%	2,050,000	115,083	*

*Less than 1%

(1) Beneficial ownership is determined in accordance with the rules of the Securities and Exchange Commission and generally includes voting or investment power with respect to securities. Shares of common stock subject to options, warrants and convertible securities currently exercisable or convertible, or exercisable or convertible within 60 days, are deemed outstanding, including for purposes of computing the percentage ownership of the person holding the option, warrant or convertible security, but not for purposes of computing the percentage of any other holder.

(2) Ian P. Ellis has voting and investment control over the securities owned by MicroCapital Fund LP and MicroCapital Fund Ltd.

(3) Includes currently exercisable warrants to purchase 1,500,000 shares of common stock.

(4) Includes currently exercisable warrants to purchase 500,000 shares of common stock.

(5) Peter E. Salas has voting and investment control over the securities owned by Dolphin Offshore Partners, L.P.

(6) Includes currently exercisable warrants to purchase 1,000,000 shares of common stock.

(7) Mark Shamia has voting and investment control over the securities owned by Palo Alto Healthcare Master Fund, L.P., Palo Alto Healthcare Fund II, L.P., Palo Alto Fund II, L.P., Micro Cap Partners, L.P. and UBTI Free, L.P.

(8) Includes currently exercisable warrants to purchase 143,100 shares of common stock.

(9) Includes currently exercisable warrants to purchase 10,800 shares of common stock.

(10) Includes currently exercisable warrants to purchase 153,838 shares of common stock.

(11) Includes currently exercisable warrants to purchase 141,500 shares of common stock.

(12) Includes currently exercisable warrants to purchase 12,300 shares of common stock.

(13) Frank Montgomery has voting and investment control over the securities owned by Moss Forest Ventures.

(14) Includes currently exercisable warrants to purchase 461,538 shares of common stock.

(15) Paul Kessler, manager of Bristol Capital Advisors LLC, the investment advisor to Bristol Investment Fund, Ltd., has voting and investment control of the securities held by Bristol Investment Fund, Ltd. Paul Kessler disclaims beneficial ownership of these securities.

(16) Includes currently exercisable warrants to purchase 461,538 shares of common stock.

(17) Anastasios Parafesias has voting and investment control over the securities owned by Triremes 9 LLC.

(18) Includes currently exercisable warrants to purchase 461,538 shares of common stock.

(19) David B. Musket is the principal of Musket Research Associates, Inc., which acted as placement agent for the April 23, 2007 private placement.

(20) Includes currently exercisable warrants to purchase 746,615 shares of common stock.

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(21) J. Misha Petkevich has voting and investment control over the securities owned by V2M Life Sciences Fund, L.P.

(22) Includes currently exercisable warrants to purchase 400,000 shares of common stock.

(23) Konrad Ackerman and Ira Lindenberg have voting and investment control over the securities owned by Alpha Capital Austalt.

(24) Includes currently exercisable warrants to purchase 384,615 shares of common stock.

(25) Includes currently exercisable warrants to purchase 384,615 shares of common stock.

(26) James Melcher and Jeff Margolis have voting and investment control of the securities held by Balestra Spectrum Partners, LLC.

(27) Includes currently exercisable warrants to purchase 307,692 shares of common stock.

(28) Neuberger Berman Asset Management, LLC is the general partner of LibertyView Funds, LP. Neuberger Berman LLC is the investment adviser to LibertyView Funds, LP and is responsible for the selection, acquisition and disposition of the portfolio securities by this fund. LibertyView Funds, LP is an affiliate of a registered broker-dealer. We have been informed by LibertyView Funds, LP that it acquired the securities offered by this prospectus for its own account in the ordinary course of business, and that, at the time it acquired such securities, it had no agreement or understanding, direct or indirect, with any person to distribute such securities.

(29) Includes currently exercisable warrants to purchase 61,538 shares of common stock.

(30) Neuberger Berman Asset Management, LLC is the general partner of LibertyView Special Opportunities Fund, LP. Neuberger Berman LLC is the investment adviser to LibertyView Special Opportunities Fund, LP and is responsible for the selection, acquisition and disposition of the portfolio securities by this fund. LibertyView Special Opportunities Fund, LP is an affiliate of a registered broker-dealer. We have been informed by LibertyView Special Opportunities Fund, LP that it acquired the securities offered by this prospectus for its own account in the ordinary course of business, and that, at the time it acquired such securities, it had no agreement or understanding, direct or indirect, with any person to distribute such securities.

(31) Includes currently exercisable warrants to purchase 46,154 shares of common stock.

(32) Boston Safe Deposit and Trust Company and Mellon Bank (DE) N.A. are the co-trustees of Trust D for a Portion of the Assets of the Kodak Retirement Income Plan (“Trust D”). Neuberger Berman, LLC is the investment manager of Trust D and is responsible for the selection, acquisition and disposition of the portfolio securities by Trust D pursuant to an investment management agreement. Trust D is not affiliated with a broker-dealer. Neuberger Berman, LLC, is a registered broker-dealer. We have been informed by Trust D that it acquired the securities offered by this prospectus for its own account in the ordinary course of business, and that, at the time it acquired such securities, it had no agreement or understanding, direct or indirect, with any person to distribute such securities.

(33) Includes currently exercisable warrants to purchase 46,154 shares of common stock.

(34) Includes currently exercisable warrants to purchase 153,846 shares of common stock.

(35)

William A. Muggia and Jamie Nissen have voting and investment control over the securities owned by Westfield Capital Microcap Fund.

(36) Includes currently exercisable warrants to purchase 153,846 shares of common stock.

(37) William A. Wolkstein, M.D. has voting and investment control over the securities owned by Centurion Capital LLC.

(38) Includes currently exercisable warrants to purchase 76,923 shares of common stock.

(39) Michael E. Cahr is the Trustee of the Cahr 1999 Dynastic Trust and has voting and investment control over the securities owned by the Trust.

(40) Includes currently exercisable warrants to purchase 76,923 shares of common stock.

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(41) Alexander Angerman and Judith Angerman Trustees have voting and investment control over the securities owned by the Angerman Family Trust.

(42) Includes currently exercisable warrants to purchase 76,923 shares of common stock.

(43) Arnold Lippa has voting and investment control of the securities owned by T Morgen Capital LLC.

(44) Includes currently exercisable warrants to purchase 38,462 shares of common stock.

(45) Includes currently exercisable warrants to purchase 20,000 shares of common stock.

(46) Hannah Hayashi is the wife of Scott Hayashi, the Company's Chief Financial Officer. Scott Hayashi disclaims beneficial ownership of securities held by Hannah Hayashi, as reported on a Form 4.

(47) Includes currently exercisable warrants to purchase 4,615 shares of common stock.

(48) Richard Wehby is the principal of Musket Research Associates, Inc., which acted as placement agent for the April 23, 2007 private placement.

(49) Consists of currently exercisable warrants to purchase 230,000 shares of common stock.

(50) Consists of (i) 2,050,000 shares of common stock owned by Jacek Rozga and Joanna Rozga JTTEN and (ii) currently exercisable options to purchase 115,083 shares of common stock.

Relationships with Selling Stockholders

Other than David B. Musket and Richard Wehby, all stockholders are investors who acquired their securities from us in one or more private placements and who have had no position, office, or other material relationship (other than as purchasers of securities) with us or any of our affiliates within the past three years.

On January 11, 2005, two affiliates of LibertyView Health Sciences Fund, LP (LibertyView Special Opportunities Fund, LP and LibertyView Funds, LP) purchased a total of 1,357,466 shares of our common stock and warrants to purchase an additional 678,733 shares of our common stock. The foregoing purchases were part of a $6,611,905 private equity financing to a group of institutional investors and accredited investors. In that offering, we sold 2,991,812 shares of our common stock at a price of $2.21 per share to the investors and issued to them warrants to purchase an additional 1,495,906 shares of our common stock at an exercise price of $2.90 per share.

Hannah Hayashi is the wife of Scott Hayashi, the Company's Chief Financial Officer. Hannah Hayashi purchased 4,615 shares of common stock and warrants to purchase 4,615 shares of common stock in our April 23, 2007 private placement.

We paid Musket Research Associates, Inc., the principals of which are David B. Musket and Richard Wehby, a cash fee of $267,000 at the closing of our April 23, 2007 private placement and issued to David B. Musket warrants to purchase 346,615 shares of our common stock and to Richard Wehby warrants to purchase 230,000 shares of our common stock, which shares are included in this prospectus. The warrants issued to Mr. Musket and Mr. Wehby have a term of five years, exercise price of $0.65 per share, cashless exercise provisions and other terms and conditions similar to the warrants issued to the investors in the private placement.

Jacek Rozga, M.D., Ph.D. is our co-founder and Chief Scientific Officer.

The information in the above table is as of the date of this prospectus. Information concerning the selling stockholders may change from time to time and any such changed information will be described if and when necessary in supplements to this prospectus or, if appropriate, a post-effective amendment to the registration statement of which this prospectus is a part.

PLAN OF DISTRIBUTION

The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

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The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales effected after the date the registration statement of which this prospectus is a part is declared effective by the SEC;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the sale of our common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed

purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering. Upon any exercise of the warrants by payment of cash, however, we will receive the exercise price of the warrants.

The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, provided that they meet the criteria and conform to the requirements of that rule.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be “underwriters” within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling stockholders who are “underwriters” within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

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To the extent required, the shares of our common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. In addition, we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the selling stockholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

We have agreed with the selling stockholders to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (1) such time as all of the shares covered by this prospectus have been disposed of pursuant to and in accordance with the registration statement or (2) the date on which the shares may be sold pursuant to Rule 144 of the Securities Act.

CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Amy Factor is the President of AFO Advisors LLC, and provides investor relations, strategic, and management services to the Company in her current role as a director and Vice Chairman of the Board. The Company pays AFO Advisors LLC a monthly retainer of $12,500 pursuant to a verbal agreement and had paid a total of $87,500 in FY 2007 as well as a restricted stock grant to purchase 44,118 shares of common stock. Additionally, Ms. Factor was granted a restricted stock grant of 100,000 shares of common stock of which 50% of the shares would vest on January 1, 2008 and the remaining 50% would vest on pro-rata monthly basis during the period January 1, 2008 through June 30, 2008.

DESCRIPTION OF SECURITIES

We are presently authorized to issue 100,000,000 shares of $0.001 par value common stock and 5,000,000 shares of $0.001 par value preferred stock. As of April 18, 2008, we had 25,603,461 shares of common stock issued and outstanding and no preferred stock issued and outstanding.

Common Stock

The holders of our common stock are entitled to equal dividends and distributions per share with respect to the common stock when, as and if declared by the board of directors from funds legally available therefore. No holder of any shares of common stock has a preemptive right to subscribe for any of our securities, nor are any common shares subject to redemption or convertible into other securities. Upon liquidation, dissolution or winding-up of our company, and after payment of creditors and preferred stockholders, if any, the assets will be divided pro rata on a share-for-share basis among the holders of the shares of common stock. All shares of common stock now outstanding

are fully paid, validly issued and non-assessable. Each share of our common stock is entitled to one vote with respect to the election of any director or any other matter upon which stockholders are required or permitted to vote. We have not paid any dividends on our common stock to date and do not anticipate that we will be paying dividends in the foreseeable future. Any payment of cash dividends on our common stock in the future will be dependent upon the amount of funds legally available, our earnings, if any, our financial condition, our anticipated capital requirements and other factors that the Board of Directors may think are relevant. However, we currently intend for the foreseeable future to follow a policy of retaining all of our earnings, if any, to finance the development and expansion of our business and, therefore, do not expect to pay any dividends on our common stock in the foreseeable future.

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Preferred Stock

Under our articles of incorporation, the board of directors has the power, without further action by the holders of the common stock, to designate the relative rights and preferences of the preferred stock, and to issue the preferred stock in one or more series as designated by the board of directors. The designation of rights and preferences could include preferences as to liquidation, redemption and conversion rights, voting rights, dividends or other preferences, any of which may be dilutive of the interest of the holders of the common stock or the preferred stock of any other series. The issuance of preferred stock may have the effect of delaying or preventing a change in control of the company without further stockholder action and may adversely affect the rights and powers, including voting rights, of the holders of the common stock.

Warrants

As of April 18, 2008, there were outstanding warrants to purchase 17,152,156 shares of common stock held by 129 investors. Such warrants expire between July and October 2008 and March 2013 and have an adjusted exercise prices of between $0.15 per share and $3.50 per share. The number of shares for which the warrants are exercisable is subject to adjustment for stock splits, combinations or dividends and reclassifications, exchanges or substitutions. In addition, the exercise price of some of the warrants may be subject to adjustment in the event that we issue any shares of common stock, or securities convertible into or exercisable for shares of common stock, at a purchase price that is less than such exercise price.

Registration Rights

In 2003, we entered into registration rights agreements with the investors who, in the aggregate, purchased 4,400,000 Units. Each Unit consisted of one share of common stock and one common stock purchase warrant. In those registration rights agreements, we agreed to file a registration statement, at our expense, to register the resale of the 4,400,000 shares of our common stock that are issuable upon the exercise of the warrants held by those investors. Our Board of Directors has also approved the registration of the 4,400,000 shares that were included in the Units. The registration statement is required to be filed after January 31, 2004 if (i) requested in writing by the holders of a majority of the then outstanding warrants (including any shares previously issued upon the exercise of the warrants), and (ii) the closing price of our common stock has exceeded $2.50 for 20 consecutive trading days. We have registered the shares that we are obligated to register under the foregoing registration rights agreements.

The warrant that we issued to Wolfe Axelrod Weinberger Associates LLC for the purchase of 75,000 shares of our common stock granted the holder of that warrant “piggyback registration” rights. Under the piggyback registration provisions, we are required, subject to certain limited exceptions, to register the 75,000 shares of our common stock in any registration statement that we file. We have registered the 75,000 shares that we are obligated to register under the registration rights provision of the warrant.

In connection with the organization and initial capitalization of ATI, we granted certain “piggy-back” registration rights to The A & K Demetriou Family Trust, Jacek Rozga, and Cedars-Sinai Medical Center, our initial three stockholders. Under these agreements, subject to certain customary conditions and exceptions, the foregoing three stockholders have the right to include in any future registration statement filed by this company some or all of their shares of the common stock. The shares of common stock owned by Cedars-Sinai Medical Center have been included in a prior, currently effective, registration statement. Accordingly, unless that prior registration statement is withdrawn before Cedars-Sinai sells its shares under that registration statement, we will have no further obligation to register the shares of Cedars-Sinai. The A & K Demetriou Family Trust has waived its rights to have its shares included in this prospectus and Jacek Rozga’s shares are included in this prospectus under this agreement.

On January 11, 2005, we sold 2,991,812 shares of our common stock and issued warrants to purchase 1,495,906 shares of our common stock. In connection with the sale of these securities, we entered into a registration rights agreement with the investors pursuant to which we agreed to file a registration statement, at our expense, to register the resale of the foregoing 2,991,812 shares of our common stock as well as the 1,495,906 shares of our common stock that are issuable upon exercise of the stock purchase warrants. This registration statement was prepared and filed as required by the foregoing registration rights agreement (to date, we believe that approximately 921,188 of the 2,991,812 shares that were covered by this prospectus have been sold by the holders thereof). We were required to use commercially reasonable efforts to have the registration statement declared effective by the SEC as soon as practicable. If sales cannot be made by the investors under this prospectus for any reason (including without limitation by reason of a stop order, or our failure to update the prospectus), then we will be required to pay each investor, as liquidated damages and not as a penalty, an amount equal to 1.5% of the aggregate purchase price paid by such investor for his shares for each 30-day period or a pro rata payment for any portion thereof following the date by which the prospectus should have been effective.

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On March 6, 2006, we announced that we have signed binding agreements and closed a private placement financing of Units, consisting of common stock and warrants, for gross proceeds of $1.35 million. Each Unit consists of one share of our common stock and one warrant to purchase 0.50 of a share of our common stock, comprising a total of 1,227,272 shares of our common stock and warrants to purchase 613,634 shares of our common stock. The offering was made to accredited investors, as defined in applicable SEC regulations. Under the terms of the purchase agreement, the Units were sold at a price of $1.10 per Unit, and the warrants will be exercisable for a period of five years at a price of $1.50 per share. Under the terms of the registration rights agreement, we agreed to file a registration statement with the SEC for the resale of the shares of common stock and the shares of common stock underlying the warrants sold in the private placement within 60 days of the March 6, 2006 closing. We have registered all of shares that we are obligated to register under the foregoing registration rights agreement. In the event that the resale registration statement has not been declared effective within certain time periods or if sales cannot be made pursuant to the registration statement following its effectiveness, each as described in the registration rights agreement, we will be obligated to pay to each investor liquidated damages, subject to certain limitations set forth in the registration rights agreement.

On April 23, 2007, we completed a $4,861,000 private equity financing to a group of current and new accredited investors. In the offering, we sold 3,739,231 Units. Each Unit was sold at a price of $1.30 per Unit. Each Unit consists of: i) two shares of our common stock, ii) one warrant to purchase one share of our common stock exercisable for a period of 2.5 years at an exercise price of $1.00 (“A Warrants”) and iii) one warrant to purchase one share of our common stock exercisable for a period of 5 years at an exercise price of $1.40 (“B Warrants”), comprising a total of 7,478,462 shares of our common stock and warrants to purchase 7,478,462 shares of our common stock. The warrants have no provision for cashless exercise and, subject to certain requirements, may be called by us provided that our common stock trades above $1.50 for the A Warrants and above $2.80 for the B Warrants for a specified time period. Under the terms of the registration rights agreement, we agreed to file a registration statement with the SEC for the resale of the shares of common stock and the shares of common stock underlying the warrants sold in the private placement within 60 days of the April 23, 2007 closing. This prospectus includes all shares that we are obligated to register under the foregoing registration rights agreement. In the event that the resale registration statement has not been declared effective within certain time periods or if sales cannot be made pursuant to the registration statement following its effectiveness, each as described in the registration rights agreement, we will be obligated to pay to each investor liquidated damages, subject to certain limitations set forth in the registration rights agreement. In connection with this private equity financing, we also granted piggyback registration rights to Musket Research Associates, Inc. with respect to 576,615 shares of our common stock issuable upon exercise of warrants issued in compensation for financial advisor and placement agent services performed in connection with the financing. This prospectus includes their 576,615 shares.

Delaware Law and Certain Charter and By-law Provisions

The provisions of Delaware law and of our Certificate of Incorporation and By-laws discussed below could discourage or make it more difficult to accomplish a proxy contest or other change in our management or the acquisition of control by a holder of a substantial amount of our voting stock. It is possible that these provisions could make it more difficult to accomplish, or could deter, transactions that stockholders may otherwise consider to be in their best interests or our best interests.

Business Combinations. We are subject to the provisions of Section 203 of the General Corporation Law of the State of Delaware. Section 203 prohibits a publicly-held Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. A “business combination” includes mergers, asset sales and other transactions resulting in a financial benefit to the interested stockholder. Subject to specified exceptions, an “interested stockholder” is a person who, together with affiliates and

associates, owns, or within three years did own, 15% or more of the corporation's voting stock.

Limitation of Liability; Indemnification. Our charter contains provisions permitted under the General Corporation Law of the State of Delaware relating to the liability of directors. The provisions eliminate a director's liability for monetary damages for a breach of fiduciary duty as a director, except in circumstances involving wrongful acts, such as the breach of a director's duty of loyalty or acts or omissions which involve intentional misconduct or a knowing violation of law. The limitation of liability described above does not alter the liability of our directors and officers under federal securities laws. Furthermore, our charter and by-laws contain provisions to indemnify our directors and officers to the fullest extent permitted by the General Corporation Law of the State of Delaware. These provisions do not limit or eliminate our right or the right of any stockholder of ours to seek non-monetary relief, such as an injunction or rescission in the event of a breach by a director or an officer of his duty of care to us. We believe that these provisions will assist us in attracting and retaining qualified individuals to serve as directors.

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Special Meeting of Stockholders. Our by-laws provide that special meetings of our stockholders may be called only by our chairman of the board, chief executive officer or by our board of directors.

Advance Notice Requirements for Stockholder Proposals and Director Nominations. Our by-laws provide that stockholders seeking to bring business before an annual meeting of stockholders, or to nominate candidates for election as directors at an annual or special meeting of stockholders, must meet specified procedural requirements. These provisions may preclude stockholders from bringing matters before an annual meeting of stockholders or from making nominations for directors at an annual or special meeting of stockholders.

Preferred Stock Issuances. Our Certificate of Incorporation provides that, without stockholder approval, we can issue up to 5,000,000 shares of preferred stock with rights and preferences determined by our board of directors.

Shares Eligible for Future Sale

As of the date of this prospectus, we had 25,603,461 shares of common stock outstanding. That number does not include (i) the 3,115,677 shares that are reserved for issuance under outstanding options and that may be issued if and when the options are exercised, or (ii) 17,152,156 shares that may be issued upon the exercise of currently outstanding warrants (including the warrants to purchase 8,055,077 shares that are owned by the selling stockholders listed in this prospectus).

Freely Tradeable Shares After Offering. As of the date of this prospectus, excluding the shares that are covered by this prospectus, 13,574,999 shares of our 25,603,461 currently outstanding shares can be publicly resold without restriction under the Securities Act. Upon the re-sale of the 9,528,462 currently outstanding shares covered by this prospectus, and the exercise and sale of the 8,055,077 warrant shares included in this prospectus, all of these 17,583,539 shares will also be freely tradable without restriction or limitation under the Securities Act. As a result, after the completion of this offering, there will be a total of 31,158,538 shares of our common stock that will be tradable without restriction under the Securities Act.

Rule 144. In general, under Rule 144, a person, or persons whose shares are aggregated, other than any affiliate of ours, who owns shares that were purchased from us or any affiliate of ours at least six months previously, is entitled to sell such shares as long as current public information about us is available. In addition, our affiliates who own shares that were purchased from us or any affiliate of ours at least six months previously are entitled to sell within any three-month period a number of shares that does not exceed the greater of (1) one percent of our then-outstanding shares of common stock (approximately 256,034 shares if the currently outstanding warrants and options are not exercised, or 463,181 shares if all outstanding options and warrants are exercised), and (2) the average weekly trading volume of our common stock on the OTC Bulletin Board during the four calendar weeks preceding the filing of a notice of the sale on Form 144, or, if no such notice is required, the date of the receipt of the order to execute the sale. Sales under Rule 144 by our affiliates are also subject to manner of sale provisions, notice requirements in specified circumstances and the availability of current public information about us. Furthermore, under Rule 144, a person who is not deemed to have been one of our affiliates at any time during the three months preceding a sale, and who owns shares within the definition of “restricted securities” under Rule 144 that were purchased from us, or any affiliate, at least one year previously, would be entitled to sell shares under Rule 144 without regard to the volume limitations, manner of sale provisions, public information requirements or notice requirements described above.

Form S-8 Registration of Options. We have registered on Form S-8 all of the 1,000,000 shares of our common stock that are eligible for sale under options granted under our 2001 Stock Option Plan. In addition, we have also registered on Form S-8 3,000,000 of the 4,000,000 shares of common stock that have been reserved for issuance under our 2005 Stock Incentive Plan, which would permit the resale of such shares in the public marketplace.

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Transfer Agent

Our transfer agent currently is The Nevada Agency and Trust Company, 50 West Liberty Street, Suite 880, Reno, Nevada 89501.

EXPERTS

The financial statements for the years ended December 31, 2007 and 2006 included in this prospectus have been audited by Stonefield Josephson, Inc. to the extent and for the periods indicated in their report thereon. Such financial statements have been included in this prospectus and registration statement in reliance upon the report of Stonefield Josephson, Inc. and upon the authority of such firm as experts in auditing and accounting.

LEGAL MATTERS

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts, will provide us with an opinion as to the legal matters in connection with the securities we are offering.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the Securities and Exchange Commission a registration statement on Form S-1 under the Securities Act for the common stock offered under this prospectus. We are subject to the informational requirements of the Exchange Act, and file annual reports, quarterly reports, current reports, proxy statements and other information with the Commission. These reports, proxy statements and other information filed by Arbios Systems, Inc. can be inspected and copied at the public reference facilities of the Commission at 100 F Street, N.E., Washington, D.C. 20549 on official business days between the hours of 10:00 a.m. to 3:00 p.m. Copies of these materials can be obtained from the Public Reference Room of the Commission at 100 F Street, N.E., Washington, D.C. 20549, at prescribed rates. You may obtain information on the operation of the Public Reference Room by calling the Commission at 1-800-SEC-0330. The Commission also maintains a Web site that contains reports, proxy statements, information statements and other information concerning Arbios Systems, Inc. at the site located at *http://www.sec.gov*. You may also access reports that we file with the Commission through our Web site at *http://www.arbios.com*. This prospectus does not contain all the information in the registration statement and its exhibits, which we have filed with the Commission under the Securities Act and to which reference is made.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors
Arbios Systems, Inc.
Boston, Massachusetts

We have audited the accompanying balance sheets of Arbios Systems, Inc. (a development stage enterprise) as of December 31, 2007 and 2006 and the related statements of operations, stockholders' equity and cash flows for each of the two years in the period ended December 31, 2007 and 2006 and the years from August 23, 2000 (inception) to December 31, 2007. 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 audit.

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. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit 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, 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 financial position of Arbios Systems, Inc. as of December 31, 2007 and 2006 and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2007 and 2006 and the years from August 23, 2000 (inception) to December 31, 2007, in conformity with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 of the financial statements, the Company has suffered recurring losses from operations including a net loss of $5,552,650 for the year ended December 31, 2007 and has an accumulated deficit of $19,314,972 as of December 31, 2007, and has been dependent solely on obtaining outside equity to finance operations, all of which raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/Stonefield Josephson, Inc.

Los Angeles, California
March 28, 2008

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ARBIOS SYSTEMS, INC.
(A development stage company)
BALANCE SHEETS
December 31, 2007 and 2006

ASSETS	December 31, 2007	2006
Current assets		
Cash and cash equivalents	$ 2,735,944	$ 2,054,280
Prepaid expenses	37,546	147,163
Total current assets	2,773,490	2,201,443
Net property and equipment	45,450	73,110
Patent rights, net of accumulated amortization of $134,374 and $113,894, respectively	132,293	152,773
Other assets	86,993	62,827
Total assets	$ 3,038,226	$ 2,490,153
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 434,727	$ 310,162
Accrued expenses	483,617	132,073
Total current liabilities	918,344	442,235
Long term contract obligations	250,000	
Accrued warrant liability	-	763,654
Total liabilities	1,168,344	1,205,889
Stockholders' equity		
Preferred stock, $.001 par value; 5,000,000 shares authorized:		
none issued and outstanding	-	-
Common stock, $.001 par value; 100,000,000 and 60,000,000 shares authorized; 25,578,461 and 17,460,181 shares issued and outstanding at December 31, 2007 and 2006, respectively	25,578	17,460
Additional paid-in capital	21,159,276	14,507,939
Deficit accumulated during the development stage	(19,314,972)	(13,241,135)
Total stockholders' equity	1,869,882	1,284,264
Total liabilities and stockholders' equity	$ 3,038,226	$ 2,490,153

The accompanying notes are an integral part of these financial statements.

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ARBIOS SYSTEMS, INC.
(A development stage company)
STATEMENTS OF OPERATIONS

	For the years ended December 31,		Inception to December 31,
	2007	2006	2007
Revenues	$ -	$ -	$ 320,966
Operating expenses:			
General and administrative	3,420,048	3,315,174	11,742,137
Research and development	2,299,632	1,822,614	8,112,808
Total operating expenses	5,719,680	5,137,788	19,854,945
Loss before other income (expense)	(5,719,680)	(5,137,788)	(19,533,979)
Other income (expense):			
Change in fair value of warrant liability	-	521,187	-
Interest income	167,030	154,697	463,145
Interest expense	-	-	(244,138)
Total other income (expense)	167,030	675,884	219,007
Net loss	$ (5,552,650)	$ (4,461,904)	$ (19,314,972)
Net loss per share:			
Basic and diluted	$ (0.24)	$ (0.26)	
Weighted-average shares:			
Basic and diluted	22,918,181	17,244,988	

The accompanying notes are an integral part of these financial statements.

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ARBIOS SYSTEMS, INC.
(A Development Stage Company)
CONDENSED STATEMENTS OF CASH FLOWS

	For the year ended December 31,		Inception to December 31,
	2007	2006	2007
Cash flows from operating activities:			
Net loss	$ (5,552,650)	$ (4,461,904)	$ (19,314,972)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:			
Amortization of debt discount	-	-	244,795
Depreciation and amortization	50,045	52,442	302,264
Change in fair value of warrant liability	-	(521,187)	-
Patent rights impairment	-	-	91,694
Interest earned on discounted short term investments	-	8,652	-
Issuance of common stock, options and warrants for compensation	813,513	1,186,803	3,613,447
Issuance of warrants for patent acquistion	74,570	-	74,570
Settlement of accrued expense	-	-	54,401
Deferred compensation costs	-	-	319,553
Loss on disposition of fixed assets	2,766	-	2,766
Changes in operating assets and liabilities:			
Prepaid expenses	109,617	48,678	(37,548)
Other assets	(24,166)	(7,054)	(86,993)
Accounts payable	124,565	149,513	434,727
Accrued expenses	351,544	(20,289)	390,115
Other liabilities	-	-	64,695
Contractual obligation	250,000	-	250,000
Net cash used in operating activities	(3,800,196)	(3,564,346)	(13,596,486)
Cash flows from investing activities:			
Additions of property and equipment	(4,671)	(3,447)	(149,467)
Purchase of short term investments	-	(12,889,073)	(21,866,787)
Maturities of short term investments	-	14,876,421	21,866,787
Net cash (used in) provided from investing activities	(4,671)	1,983,901	(149,467)
Cash flows from financing activities:			
Proceeds from issuance of convertible debt	-	-	400,000
Proceeds from common stock option/warrant exercise	2,700	-	67,900
	4,483,831	1,254,987	15,797,080

Net proceeds from issuance of common stock and warrants			
Net proceeds from issuance of preferred stock	-	-	238,732
Payments on capital lease obligation, net	-	-	(21,815)
Net cash provided by financing activities	4,486,531	1,254,987	16,481,897
Net increase (decrease) in cash	681,664	(325,458)	2,735,944
Cash at beginning of period	2,054,280	2,379,738	-
Cash at end of period	$ 2,735,944	$ 2,054,280	$ 2,735,944
Supplemental disclosures of non-cash financing activity			
Issuance of securities for obligation related to finder's fees	-	-	$ 47,500
Accrued warrant liability	-	$ 763,654	$ 763,654

The accompanying notes are an integral part of these condensed financial statements.

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ARBIOS SYSTEMS, INC.
(A Development Stage Company)
CONDENSED STATEMENT OF STOCKHOLDERS' EQUITY
PERIOD FROM AUGUST 23, 2000 (INCEPTION) TO DECEMBER 31, 2007

	Preferred Stock Shares	Preferred Stock Amount	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Deferred Costs	Deficit Accumulated During the Development Stage	Total
Balance, August 23, 2000 (inception) restated for effect of reverse merger with Historical Autographs U.S.A. Inc.	-	$ -	-	$ -	$ -	$ -	$ -	$ -
Stock issuance in exchange for cash			5,000,000	50	4,950			5,000
Net loss							(9,454)	(9,454)
Balance, December 31, 2000, as restated	-	-	5,000,000	50	4,950	-	(9,454)	(4,454)
Issuance of junior preferred stock for cash of $250,000 and in exchange for $400,000 in patent rights, research and development costs, and employee loanout costs less issuance expenses of $11,268, June 29, 2001	681,818	7			958,278	(343,553)		614,732
Issuance of common stock in exchange								

for patent rights and deferred research and development costs			362,669	4	547,284			547,288
Services receivable						(550,000)		(550,000)
Deferred employee loan-out costs receivable earned						82,888		82,888
Net loss							(237,574)	(237,574)
Balance, December 31, 2001	681,818	7	5,362,669	54	1,510,512	(810,665)	(247,028)	452,880

The accompanying notes are an integral part of these condensed financial statements.

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ARBIOS SYSTEMS, INC.
(A Development Stage Company)
CONDENSED STATEMENT OF STOCKHOLDERS' EQUITY
PERIOD FROM AUGUST 23, 2000 (INCEPTION) TO DECEMBER 31, 2007

	Preferred Stock Shares	Preferred Stock Amount	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Deferred Costs	Deficit Accumulated During the Development Stage	Total
Amendment of December 31, 2001 agreement for the issuance of common stock agreement in exchange for research and development services					(495,599)	550,000		54,401
Deferred employee loan out costs receivable earned						171,776		171,776
Issuance of common stock for compensation			70,000	1	10,499			10,500
Issuance of common stock for cash			999,111	9	149,857			149,866
Net loss							(494,780)	(494,780)
Balance, December 31, 2002	681,818	7	6,431,780	64	1,175,269	(88,889)	(741,808)	344,643
Issuance of common stock for cash less issuance expense of $2,956			417,000	417	246,827			247,244
Issuance of common stock in								

private placement for cash less issuance expense of $519,230	4,000,000	4,000	3,476,770	3,480,770
Issuance of common stock for convertible debenture less issuance expense of $49,500	400,000	400	350,100	350,500
Shares issued in connection with acquisition of Historical Autographs U.S.A., Inc. on October 30, 2003	1,220,000	8,263	(8,263)	-

The accompanying notes are an integral part of these condensed financial statements.

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ARBIOS SYSTEMS, INC.
(A Development Stage Company)
CONDENSED STATEMENT OF STOCKHOLDERS' EQUITY
PERIOD FROM AUGUST 23, 2000 (INCEPTION) TO DECEMBER 31, 2007

	Preferred Stock Shares	Preferred Stock Amount	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Deferred Costs	Deficit Accumulated During the Development Stage	Total
Value of warrants and beneficial conversion feature of bridge loan					244,795			244,795
Deferred employee loan-out costs receivable earned						88,889		88,889
Preferred Stock converted to Common Stock	(681,818)	(7)	681,818	7				
Net loss							(885,693)	(885,693)
Balance, December 31, 2003	-	-	13,150,598	13,151	5,485,498	-	(1,627,501)	3,871,148
Issuance of common stock options and warrants for compensation					972,430			972,430
Exercise of common stock options			18,000	18	2,682			2,700
Issuance of securities for payable			47,499	47	47,451			47,498
Net loss							(3,327,827)	(3,327,827)
Balance, December 31,	-	-	13,216,097	13,216	6,508,061	-	(4,955,328)	1,565,949

2004				
Issuance of common stock in private placement for cash less issuance expense of $384,312	2,991,812	2,992	6,224,601	6,227,593
Issuance of common stock options and warrants for compensation			557,080	557,080
Exercise of common stock options	25,000	25	62,475	62,500

The accompanying notes are an integral part of these condensed financial statements.

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ARBIOS SYSTEMS, INC.
(A Development Stage Company)
CONDENSED STATEMENT OF STOCKHOLDERS' EQUITY
PERIOD FROM AUGUST 23, 2000 (INCEPTION) TO DECEMBER 31, 2007

	Preferred Stock Shares	Amount	Common Stock Shares	Amount	Additional Paid-In Capital	Deferred Costs	Accumulated During the Development Stage	Total
Net loss							(3,823,903)	(3,823,903)
Balance, December 31, 2005	-	-	16,232,909	16,233	13,352,217	-	(8,779,231)	4,589,219
Issuance of common stock in private placement for cash less issuance expense of $95,013			1,227,272	1,227	1,253,760			1,254,987
Issuance of common stock options and warrants for compensation					703,839			703,839
Stock warrant term extension			-		482,964			482,964
Warrant liability					(1,284,841)			(1,284,841)
Net loss							(4,461,904)	(4,461,904)
Balance, December 31, 2006	-	-	17,460,181	17,460	14,507,939	-	(13,241,135)	1,284,264
Cumulative effect of change in accounting principle:								
Adjust retained earnings at January 1, 2007 for change in accounting principle							(521,187)	(521,187)
Reclassification of warrants					1,284,841			1,284,841

Issuance of common stock and warrants in private placement for cash less issuance expense of $377,169	7,478,462	7,479	4,476,352	4,483,831
Exercise of common stock warrants	18,000	18	2,682	2,700
Stock option based compensation expense			438,263	438,263

The accompanying notes are an integral part of these condensed financial statements.

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ARBIOS SYSTEMS, INC.
(A Development Stage Company)
CONDENSED STATEMENT OF STOCKHOLDERS' EQUITY
PERIOD FROM AUGUST 23, 2000 (INCEPTION) TO DECEMBER 31, 2007

	Preferred Stock Shares	Preferred Stock Amount	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Deferred Costs	Accumulated During the Development Stage	Total
Stock warrant term extension			-		59,025			59,025
Restricted stock based compensation expense			621,818	621	315,604			316,225
Issuance of warrants for patent acquistion					74,570			74,570
Net loss							(5,552,650)	(5,552,650)
Balance, December 31, 2007	-	-	25,578,461	$ 25,578	$ 21,159,276	-	($19,314,972)	$ 1,869,882

The accompanying notes are an integral part of these condensed financial statements.

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ARBIOS SYSTEMS, INC.

(A DEVELOPMENT STAGE COMPANY)
NOTES TO FINANCIAL STATEMENTS
FOR THE YEARS ENDED DECEMBER 31, 2007 AND 2006

(1) Summary of Significant Accounting Policies:

General:

Arbios Systems, Inc., a Delaware corporation (the "Company"), seeks to develop, manufacture and market liver assist devices to meet the urgent need for therapy of liver failure.

The Company has a lead product under development, the SEPET™ Liver Assist Device, which is a blood purification therapy device for patients with liver failure. The Company has a second product candidate, the HepatAssist™ Cell-Based Liver Support System, which is a bioartificial liver; whose development is currently on hold pending raising of additional funds or entering into a corporate partnership for this project.

On October 30, 2003, Historical Autographs U.S.A., Inc. and Arbios Technologies, Inc. ("ATI") consummated a reverse merger, in which ATI became the wholly owned subsidiary of Historical Autographs U.S.A., Inc. Concurrently with the merger, Historical Autographs U.S.A., Inc. changed its name to Arbios Systems, Inc. and is herein referred to as "Arbios Systems". The stockholders of ATI transferred ownership of one hundred percent of all the issued and outstanding shares of their capital stock of ATI in exchange for 11,930,598 newly issued shares, or approximately 91%, of the common stock, $.001 par value, of Arbios Systems. At that time, the former management of Arbios Systems resigned and was replaced by the same persons who served as officers and directors of ATI. Inasmuch as the former owners of ATI controlled the combined entity after the merger, the combination was accounted for as a purchase by ATI as acquirer, for accounting purposes in accordance with Statement of Financial Accounting Standards, ("SFAS") No. 141, "Business Combinations" using reverse merger accounting, and no adjustments to the carrying values of the assets or liabilities of the acquired entity were required. Proforma operating results, as if the acquisition had taken place at the beginning of the period, have not been presented as the operations of the acquiree were negligible. The financial position and results of operations of Arbios Systems is included in the statements of the Company from the date of acquisition.

On July 25, 2005, Arbios Systems completed its reincorporation as a Delaware corporation by merging with and into Arbios Systems, Inc., a Delaware corporation ("Arbios"). The foregoing merger was approved by the Company's stockholders at the annual meeting of stockholders held on July 7, 2005. In order to consolidate the functions and operations of Arbios and ATI, on July 26, 2005, ATI merged into Arbios. As a result, Arbios now owns all of the assets of ATI and all of the operations of the two companies have been consolidated into Arbios. Unless the context indicates otherwise, references herein to the "Company" during periods prior to July 26, 2005 include Arbios Systems, a Nevada corporation and ATI.

Development Stage Enterprise:

The Company is a development stage enterprise as defined in SFAS No. 7, "Accounting and Reporting by Development Stage Enterprises." The Company is devoting substantially all of its present efforts to establish a new business. Its planned principal commercial operations have not yet commenced. Research and development, which were initiated in 2000 is being vigorously pursued including conducting of human clinical trials. All losses accumulated since inception, have been considered as part of the Company's development stage activities.

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ARBIOS SYSTEMS, INC.

(A DEVELOPMENT STAGE COMPANY)
NOTES TO FINANCIAL STATEMENTS
FOR THE YEARS ENDED DECEMBER 31, 2007 AND 2006

(1) Summary of Significant Accounting Policies, Continued:

Going Concern:

The Company's financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America, which contemplate continuation of the Company on a going concern basis, and which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. The Company has incurred a net operating loss of $5,552,650 for the year ended December 31, 2007 and an accumulated deficit of $19,314,972 at December 31, 2007. This factor raises substantial doubt about the Company's ability to continue as a going concern.

If the Company is unsuccessful in its efforts to raise additional funds through the sale of additional equity securities or if the level of cash and cash equivalents falls below anticipated levels, the Company will not have the ability to continue as a going concern. While the Company intends to pursue development of its product candidates, any significant continued development is contingent upon additional funding or a strategic partnership. The amount and timing of future capital requirements will depend on numerous factors, including the number and characteristics of product candidates that the Company pursues, the conduct of preclinical tests and clinical studies, the status and timelines of regulatory submissions, the costs associated with protecting patents and other proprietary rights, the ability to complete strategic collaborations and the availability of third-party funding, if any. The Company may also seek additional funding through corporate collaborations and other financing vehicles. If funds are obtained through arrangements with collaborative partners or others, the Company may be required to relinquish rights to its technologies or product candidates.

Management's plans include the sale of additional equity securities through a private placement or other financing method. However, no assurance can be given that the Company will be successful in raising additional capital. Furthermore, there can be no assurance, assuming the Company successfully raises additional capital, that the Company will achieve profitability or positive cash flow. If management is unable to raise additional capital and expected significant revenues do not result in positive cash flow, the Company will not be able to meet its obligations and will have to cease operations. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Use of Estimates:

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant estimates were used in the calculation of stock option valuation, warrant liability valuation, property and equipment, and amortization of patents.

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ARBIOS SYSTEMS, INC.

(A DEVELOPMENT STAGE COMPANY)
NOTES TO FINANCIAL STATEMENTS
FOR THE YEARS ENDED DECEMBER 31, 2007 AND 2006

(1) Summary of Significant Accounting Policies, Continued:

Comprehensive Income:

· SFAS No. 130, "Reporting Comprehensive Income", establishes standards for the reporting and display of comprehensive income and its components in the financial statements. As of December 31, 2007 and 2006, the Company has no items that represent comprehensive income and therefore, the Company has not included a schedule of comprehensive income in the financial statements.

Property and Equipment:

Property and equipment are stated at cost. Depreciation is provided using the straight-line method over the estimated useful lives of the assets of five to seven years.

Patent Rights:

In accordance with SFAS No. 2, “Accounting for Research and Development Costs” the costs of intangible assets that are purchased from others for use in research and development activities and that have alternative future uses are capitalized and amortized. The Company capitalizes certain patent rights that are believed to have future economic benefit. The licensed capitalized patents costs were recorded based on the estimated value of the equity security issued by us to the licensor. The value ascribed to the equity security took into account, among other factors, our stage of development and the value of other companies developing extracorporeal bioartificial liver assist devices. These patent rights are amortized using the straight-line method over the remaining life of the patent. Certain patent rights received in conjunction with purchased research and development costs have been expensed. Legal costs incurred in obtaining, recording and defending patents are expensed as incurred.

The Company periodically evaluates whether events or circumstances have occurred that may affect the estimated useful lives or the recoverability of the remaining balance of the patents. Impairment of the assets is triggered when the estimated future undiscounted cash flows do not exceed the carrying amount of the intangible assets. If the events or circumstances indicate that the remaining balance of the assets may be permanently impaired, such potential impairment will be measured based upon the difference between the carrying amount of the assets and the fair value of such assets, determined using the estimated future discounted cash flows generated.

Fair Value of Financial Instruments:

The Company’s financial instruments include cash, short-term investments, accounts payable, accrued expenses, and warrant liability, some of which have carrying amounts which approximate fair value due to their short maturities.

Cash and Cash Equivalents:

The Company considers highly liquid debt instruments with original maturities of 90 days or less to be cash equivalents.

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ARBIOS SYSTEMS, INC.

(A DEVELOPMENT STAGE COMPANY)
NOTES TO FINANCIAL STATEMENTS
FOR THE YEARS ENDED DECEMBER 31, 2007 AND 2006

(1) Summary of Significant Accounting Policies, Continued:

Short Term Investments:

Short-term investments generally mature between three and twelve months. Short-term investments consist of U.S. Government Agency Notes purchased at a discount with interest accruing to the notes full value at maturity. All of the Company's short-term investments are classified as available-for-sale and are carried at fair market value which approximates cost plus accrued interest.

Income Taxes:

The Company accounts for income taxes under SFAS No. 109, "Accounting for Income Taxes" ("SFAS 109"). This statement requires the recognition of deferred tax assets and liabilities for the future consequences of events that have been recognized in the Company's financial statements or tax returns. The measurement of the deferred items is based on enacted tax laws. In the event the future consequences of differences between financial reporting bases and the tax bases of the Company's assets and liabilities result in a deferred tax asset, SFAS No. 109 requires an evaluation of the probability of being able to realize the future benefits indicated by such asset. A valuation allowance related to a deferred tax asset is recorded when some portion or the entire deferred tax asset will not be realized on a more likely than not basis. Based on the Company's assessment of all available evidence, the Company has concluded that its deferred tax assets are not more likely than not to be realized. This conclusion is based primarily on our history of net operating losses, and the need to generate significant amounts of taxable income in future periods on a consistent and prolonged basis in order to utilize the deferred tax assets.

In July 2006, the Financial Accounting Standards Board ("FASB") issued FASB Interpretation Number 48, "Accounting for Uncertainty in Income Taxes, an Interpretation of FASB Statement No. 109," ("FIN 48"). FIN 48 provides guidance on recognition, derecognition, measurement, classification, interest and penalties, accounting in interim periods, disclosure and transition. FIN 48 requires an entity to recognize the financial statement impact of a tax position when it is more likely than not that the position will be sustained upon examination. The amount recognized is measured as the largest amount of benefit that is greater than fifty percent likely of being realized upon ultimate settlement. In addition, FIN 48 permits an entity to recognize interest and penalties related tax uncertainties either as income tax expenses or operating expenses. Accordingly, the Company recognizes interest and penalties related to tax uncertainties as income tax expense.

The Company has concluded that there are no significant uncertain tax positions requiring recognition in its financial statements and did not record any unrecognized tax benefits. As a result, the adoption of FIN 48 did not have a material impact on the Company's results of operation and financial position as of December 31, 2007.

The Company is subject to U.S. federal income tax as well as to income tax of multiple state jurisdictions. Federal income tax returns of the Company are subject to IRS examination for the 2004 through 2006 tax years. State income tax returns are subject to examination for a period of three to four years after filing.

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(1) Summary of Significant Accounting Policies, Continued:

Stock-Based Compensation:

Commencing January 1, 2006, the Company adopted SFAS No. 123R, "Share Based Payment," ("SFAS 123R") which requires all share-based payments, including grants of stock options, to be recognized in the income statement as an operating expense, based on fair values.

Under SFAS 123R, forfeitures are estimated at the time of valuation and reduce expense ratably over the vesting period. This estimate is adjusted periodically based on the extent to which actual forfeitures differ, or are expected to differ, from the previous estimate. The Company utilized a 5% forfeiture rate based upon historical forfeitures. Under SFAS 123 and APB 25, the Company elected to account for forfeitures when awards were actually forfeited, at which time all previous pro forma expense was reversed to a reduced pro forma expense for the period in which the forfeiture occurred.

For non-employee stock based compensation, the Company recognizes an expense in accordance with SFAS 123 and values the equity securities based on the fair value of the security on the date of grant with subsequent adjustments based on the fair value of the equity security as it vests. The fair value of expensed options is estimated using the Black Scholes option-pricing model.

As of December 31, 2007, there was $289,000 of total unrecognized compensation cost related to non-vested share-based compensation arrangements granted under existing stock option plans. This cost is expected to be recognized over a weighted average period of 2.86 years. The total fair value of shares vested and unvested during the twelve months ended December 31, 2007 was $404,000, of which all are attributed to employee options.

The fair value of options granted to employees was estimated using the Black Scholes option-pricing model. The options granted vest based upon the vesting schedule determined at the time of grant or the achievements of performance-based milestones. These same assumptions are also used in applying the Black Scholes option-pricing model for any stock based option and warrant compensation paid to non-employees. The fair value of options and warrants at the date of grant and the assumptions utilized are indicated in the following table:

	For the Year Ended December 31 ,	
	2007	2006
Weighted average of fair value at date of grant for options granted during the period	$0.55	$0.87
Risk-free interest rates	3.67% - 4.88%	4.35% - 5.04%
Expected option life in years	7	7
Expected stock price volatility	.79 - .85	.72 - .77
Expected dividend yield	0%	0%

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Stock-Based Compensation, Continued:

Risk-Free Interest Rate. The interest rate used in valuing awards is based on the yield at the time of grant of the U.S. Treasury security 5 year constant maturity rate.

Expected Term. The expected term is based on historical observations of employee exercise patterns during the Company's history.

Expected Volatility. The Company calculates the expected volatility of its stock options using historical volatility of weekly stock prices.

Dividend Yield. The Company has never paid cash dividends, and does not currently intend to pay cash dividends, and thus has assumed a 0% dividend yield.

Net Loss Per Common Share:
The Company utilizes SFAS No. 128, "Earnings per Share." Basic loss per share is computed by dividing loss available to common shareholders by the weighted-average number of common shares outstanding. Diluted loss per share is computed similar to basic loss per share except that the denominator is increased to include the number of additional common shares that would have been outstanding if the potential common shares had been issued and if the additional common shares were dilutive. The computation of diluted loss per share does not assume conversion, exercise or contingent exercise of securities that would have an anti-dilutive effect on losses. For the years ended December 31, 2007 and 2006, potential common shares aggregating 20,469,000 and 10,694,000, respectively, were excluded in computing the per share amounts because they are anti-dilutive.

Recent Accounting Pronouncements:

In September 2006, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 108, "Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements" ("SAB 108"), to address diversity in practice in quantifying financial statement misstatements. SAB 108 requires that the Company quantify misstatements based on their impact on each of our financial statements and related disclosures. SAB 108 is effective for the first fiscal year ending after November 15, 2006, allowing a one-time transitional cumulative effect adjustment to retained earnings as of January 1, 2006 for errors that were not previously deemed material, but are material under the guidance in SAB 108. The Company adopted provisions of SAB 108 in the quarter ended December 31, 2006 without any impact on the financial statements.

In September 2006, the FASB issued SFAS 157, "Fair Value Measurements" ("SFAS 157"). SFAS 157 defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles and expands disclosures about fair value measurements. SFAS 157 is effective for financial statements issued for fiscal years beginning after November 15, 2007 with earlier application encouraged. We are evaluating the impact of adopting SFAS 157 on our financial statements.

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(1) Summary of Significant Accounting Policies Continued:

Recent Accounting Pronouncements Continued:

In December 2006, the FASB issued FASB Staff Position ("FSP") EITF 00-19-2, “Accounting for Registration Payment Arrangements.” This FSP addresses how to account for registration payment arrangements and clarifies that a financial instrument subject to a registration payment arrangement should be accounted for in accordance with other generally accepted accounting principles without regard to the contingent obligation to transfer consideration pursuant to the registration payment arrangement. This accounting pronouncement further clarifies that a liability for liquidated damages resulting from registration statement obligations should be recorded in accordance with SFAS No. 5, “Accounting for Contingencies,” when the payment of liquidated damages becomes probable and can be reasonably estimated. This FSP was effective immediately for registration payment arrangements and the financial instruments subject to those arrangements that are entered into or modified subsequent to the date of issuance of this FSP. For registration payment arrangements and financial instruments subject to those arrangements that were entered into prior to the issuance of this FSP, this guidance shall be effective for financial statements issued for fiscal years beginning after December 15, 2006, and interim periods within those fiscal years. The Company is currently assessing the impact that this FSP may have in its financial statements.

In February 2007, the FASB issued SFAS No. 159, “The Fair Value Option for Financial Assets and Financial Liabilities-Including an amendment of FASB Statement No. 115” (“SFAS 159”). SFAS 159 permits companies to measure many financial instruments and certain other items at fair value at specified election dates. SFAS 159 will be effective beginning January 1, 2008. The Company is currently assessing the impact of SFAS 159 on its financial statements.

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(1) Summary of Significant Accounting Policies Continued:

Recent Accounting Pronouncements Continued:

On June 27, 2007, the FASB reached a final consensus on Emerging Issues Task Force Issue 07-3, "Accounting for Advance Payments for Goods or Services to Be Used in Future Research and Development Activities" ("EITF 07-03"). Currently, under SFAS No. 2, "Accounting for Research and Development Costs," nonrefundable advance payments for future research and development activities for materials, equipment, facilities, and purchased intangible assets that have no alternative future use are expensed as incurred. EITF 07-03 addresses whether such non-refundable advance payments for goods or services that have no alternative future use and that will be used or rendered for research and development activities should be expensed when the advance payments are made or when the research and development activities have been performed. The consensus reached by the FASB requires companies involved in research and development activities to capitalize such non-refundable advance payments for goods and services pursuant to an executory contractual arrangement because the right to receive those services in the future represents a probable future economic benefit. Those advance payments will be capitalized until the goods have been delivered or the related services have been performed. Entities will be required to evaluate whether they expect the goods or services to be rendered. If an entity does not expect the goods to be delivered or services to be rendered, the capitalized advance payment will be charged to expense. The consensus on EITF 07-03 is effective for financial statements issued for fiscal years beginning after December 15, 2007, and interim periods within those fiscal years. Earlier application is not permitted. Entities are required to recognize the effects of applying the guidance in EITF 07-03 prospectively for new contracts entered into after the effective date. The Company is in the process of evaluating the expected impact of EITF 07-03 on its financial position and results of operations following adoption.

(2) Cumulative Effect of a Change in Accounting Principle:

In accordance with SFAS No. 154: "Accounting Changes and Error Corrections," ("FASB 154") the Company is recording a change in accounting principal related to FASB's Emerging Issues Task Force Issue No. 00-19-2, "Accounting for Registration Payment Arrangements," ("EITF 00-19-2"). EITF 00-19-2 was issued December 21, 2006 and is effective for fiscal periods beginning after December 15, 2006, and requires the registration rights agreement and any registration rights payments to be considered separately from the financial instruments. In accordance with EITF 00-19-2, the Company reversed the classification of the warrant liability associated with the warrants issued in the 2005 and 2006 financings from debt to equity during the period ended March 31, 2007. The warrants and registration rights agreement were previously accounted for as a single instrument, and without the consideration of the registration rights payments the warrants are properly classified as equity in accordance with EITF 00-19. The Company reviewed the instruments entered into in connection with the April 2007 financing discussed in Note 6 below and determined that the financing did not have any embedded derivatives requiring derivative accounting treatment.

(3) Property and Equipment:

Property and equipment consisted of the following:

	2007	**2006**

Office equipment	$	8,589	$	8,589
Office furniture		7,297		7,297
Computer equipment		38,546		45,915
Medical equipment		107,993		107,993
		162,425		169,794
Less: accumulated depreciation		(116,975)		(96,684)
	$	45,450	$	73,110

Depreciation expense was $29,565, $31,966 and $116,975 for the years ended December 31, 2007 and 2006, and the period from August 23, 2000 (inception) to December 31, 2007, respectively.

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(4) Patent Rights:

In June 2001, the Company acquired, in exchange for junior preferred stock, exclusive rights to five existing patents, at which time the aggregate value of these rights was $400,000. At December 31, 2007 and 2006, the accumulated amortization of these rights was $134,374 and $113,894, respectively, and the estimated remaining life was 5 years. Amortization expense was $20,480 for the year ended December 31, 2007 and $20,476 for the year ended December 31, 2006 and $176,013 for the period from August 23, 2000 (inception) to December 31, 2007.

Future estimated amortization expense in each of the years from 2008 through 2012 is $20,476 and $29,914 thereafter.

In conjunction with certain patents rights described above, the Company committed to the licensor to spend a total of $1,760,000 in research and development expenses toward the development and promotion of products, commencing from the acquisition date until June 30, 2008. The Company has made expenditures to date to satisfy the entire research and development costs obligation of the agreement.

The Company is also subject to paying royalty fees to the licensor initially equal to 1.5% of the gross sales price of royalty bearing products. From year three to the tenth year of the license, the royalty fee percent will phase out evenly to 0%. As of December 31, 2007 and 2006, the Company had not paid any royalty fees since it did not have any sales of royalty bearing products.

In April 2004, the Company purchased patents and other selected assets from Circe Biomedical, Inc. In connection with the acquisition of these patents, the Company assumed a Royalty Agreement dated as of January 29, 1999, between Circe Biomedical, Inc. and Circe Acquisition Corp. The Company assumed the obligation to pay a royalty of 2% of “net sales” of any product that utilizes or incorporates the bioartificial liver patents, technology, inventions, and technical or scientific data that the Company acquired from Circe Biomedical. As of December 31, 2007 and 2006, the Company had not paid any royalty fees to Circe Biomedical Inc. since it did not have any sales of royalty bearing products.

In March, 2007, the Company in-licensed a family of U.S. patents plus foreign counterparts and pending patent applications, and certain related trade secrets. The issued patents include broad claims for methods of treating liver failure, multi-organ failure, multi-organ dysfunction syndrome, sepsis, septic shock, systemic inflammatory response syndrome, and related inflammatory disorders by selective blood filtration. The patents and applications relate to the use of blood filtration devices which remove, from the blood of patients with the above disease conditions, a broad spectrum of inflammatory and other disease mediators ranging from small molecules through intermediate size blood proteins with molecular weights up to the size of beneficial immunoglobulins. The patents and/or applications also relate to the combined use of replacement fluids including human serum albumin or combined uses of secondary selective plasma adsorption devices and/or certain classes of anti-inflammatory therapeutic drugs, and to apparatus suitable for the above uses.

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(4) Patent Rights Continued:

Included in this in-licensed family are five issued U.S. patents, four pending U.S. patents, and two pending European patents. The Company will owe royalties on net sales of products which are covered by the license, including potentially the SEPET™ Liver Assist Device, ranging from low- to mid-single digit percentages of net sales. The Company will also owe maintenance fees and certain other minimum spending obligations under the license and may owe contingent milestone fees. The Company's fixed obligations under the license will total less than $500,000 over the next 4 years, a portion of which includes spending on future product development possibly leading to future sales revenues for the Company. The Company's contingent obligations under the license will total less than $500,000 over approximately the same period: however, payments will be dependent on the pace of potential future patent issuances. The Company must raise $5.2M by the end of 2008 in order to maintain the exclusivity of the patent portfolio per the terms of the licensing agreement.

In connection with the license, the Company has also issued a warrant to the licensor for 225,000 common shares with an exercise price of $1.50 per share and a 6-year term expiring in March, 2013. The Company is further obligated to issue 50,000 stock options to a medical consultant in July, 2008, at the then fair market price of the Company's common stock, with a reasonable vesting term to be defined by Arbios.

(5) Commitments and Contingencies:

Description of Property

The Company currently maintains its research offices and laboratories in Medford, Massachusetts where it leases 1,783 square feet at $5,044 per month with a term of one year that was entered into on September 15, 2007. The Company maintains 640 square feet of administrative office space in Pasadena, California which is leased on a month-to-month basis for approximately $1,500 per month, and our corporate headquarters is located in Waltham, Massachusetts which is leased for approximately $3,900 per month under a lease with a six month term that was entered into on February 1, 2008 for approximately 600 square feet of space.

Rent expense was $186,236, $312,239, and $878,730 for the years ended December 31, 2007 and 2006, and the period from August 23, 2000 (inception) to December 31, 2007, respectively.

Agreements

On September 14, 2007, the Company entered into a Supply Agreement (the "Supply Agreement") with Membrana GmbH, a company organized under the laws of Germany ("Membrana"), for the provision of membranes for use in the Company's SEPET™ therapeutic blood filtration products for the treatment of liver failure and sepsis. The Supply Agreement provides that following the first commercial sale of the Company's product that contains Membrana membranes, Membrana will be the Company's exclusive supplier of certain identified membranes for use in certain of the Company's products. In addition, the agreement provides that following the first commercial sale of the Company's product that contains Membrana membranes, Membrana shall not supply certain identified membranes for use in one of the Company's products to any third party that will incorporate such membranes into a product whose composition, method of manufacture or method of use falls within a claim of one of the Company's issued U.S. Such exclusivity

may last for up to five years based upon the fulfillment of certain minimum purchase thresholds by the Company. The agreement also provides for pre-established per-unit pricing of Membrana membranes, including progressive quantity discounts.

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(5) Commitments and Contingencies:

The Supply Agreement will terminate following the six-year anniversary of the date of the first commercial sale of the Company's product that contains Membrana membranes. The Supply Agreement may be terminated by either party upon ninety days notice in the event of a material breach by the other party that remains uncured for ninety days, or upon sixty days notice if the other party becomes insolvent or becomes the subject of any voluntary or involuntary proceeding in bankruptcy, liquidation, dissolution, receivership, or general assignment for the benefit of creditors that is not dismissed within sixty days. In addition, upon sixty days notice, the Company may terminate the Supply Agreement or terminate the exclusivity of the Supply Agreement, upon Membrana's failure to meet certain delivery requirements.

On October 19, 2007, the Company entered into a Manufacturing & Supply Agreement (the "Supply Agreement") with NxStage Medical, Inc. ("NxStage") for the manufacture and supply of the Company's SEPET™ Liver Assist Device for use in clinical trials and for commercial sale. The Supply Agreement provides that NxStage will be the Company's exclusive manufacturer and supplier of the SEPET™ Liver Assist Device for commercial sale until the fifth anniversary of regulatory approval of the device. Under the Supply Agreement, NxStage will not manufacture, supply or sell the Company's device to other parties and if NxStage manufactures, supplies or sells a competing product, as defined in the Supply Agreement, subject to certain exceptions, the Company may terminate the arrangement or convert it into a non-exclusive arrangement. In addition, if the Company purchases more than a certain number of devices in one calendar year, the Company will be subject to an annual minimum purchase requirement for the remainder of the agreement, which minimum will be subject to adjustment each year. The Supply Agreement provides for pre-established per-unit pricing, including quantity discounts and yearly adjustments.

The Supply Agreement will terminate upon the earlier of (i) the seventh anniversary of regulatory approval of the device or (ii) the seventh anniversary of the date of the Supply Agreement if regulatory approval of the device is not obtained by such date. The Supply Agreement may be terminated by either party (i) upon an extended prior notice period, (ii) upon a material breach by the other party that remains uncured, or (iii) upon notice if the other party becomes insolvent, files for bankruptcy, goes into liquidation or a receiver is appointed over all or a major part of the other parties' assets. In addition, the Company may terminate the Supply Agreement or terminate the exclusivity of the Supply Agreement, upon the occurrence of certain events.

(6) Stockholders' Equity:

Preferred Stock

The Company has 5,000,000 shares of preferred stock authorized. There are no shares of preferred stock issued or outstanding. The Board of Directors has the authority to set by resolution the particular designation, preferences and other special rights and qualification of preferred stock.

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(6) Stockholders' Equity:

Junior Preferred Stock

In June 2001, ATI issued 681,818 shares of junior preferred stock in exchange for $250,000 in cash, exclusive rights to certain patents and one pending patent valued at $400,000 (see Note 4), and future services of certain employees valued at $319,553 (see Note 5). In October 2003, all issued and outstanding shares of the junior preferred stock were converted into 681,818 shares of common stock.

Common Stock

In August 2000, ATI issued 5,000,000 shares of common stock, $0.001 par value, to the Company's two founders in exchange for $5,000 in cash.

In December 2001, ATI issued 362,669 shares of common stock in exchange for future research costs valued at $550,000, an exclusive license, a manufacturing and supply agreement, and exclusive rights to two patents. The manufacturing and supply agreement has ended and one of the patents has expired.

In June 2002, ATI issued 70,000 shares of common stock to a Board member as compensation for services rendered valued at $10,500.

In July 2002, ATI issued 999,111 shares of common stock to investors in exchange for $149,866 in cash, or $0.15 per share.

In July 2002, ATI issued options to purchase 18,000 shares of common stock to each of its five Board members for services rendered. The options are exercisable at $0.15 per share. The options vested 50% in six months and 50% in 12 months from the beginning date of service provided by the respective Board members. Three Board members have resigned and had their options expire as of December 31, 2007.

In July 2002, ATI issued a warrant to purchase 100,000 shares of common stock to a Board member for services rendered to the Company. The warrant is exercisable at $0.15 per share and has a 7-year life. The warrant also has conversion rights in lieu of payment of the exercise price and is not transferable.

In January 2003, ATI issued 417,000 shares of common stock and a three year warrant to purchase 600,000 shares of common stock at an exercise price of $1.00 per share to an investor in exchange for $250,200 in cash. The Company recognized $2,956 in stock issuance costs. The warrant expiration date of January 23, 2006 was extended to February 15, 2010 in exchange for the investor's agreement to not sell his Company stock holdings until February 15, 2009.

In July 2003, ATI issued a warrant to purchase 50,000 shares of common stock to a Board member for services rendered to the Company. The warrant is exercisable at $1.00 per share and has a five-year life. The warrant grant resulted in a non-cash charge of $7,180 determined utilizing the Black Scholes pricing model and the following economic assumptions: dividend yield 0%, volatility .05, risk free interest rate 3% and an expected life of 5 years.

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(6) Stockholders' Equity Continued:

In September 2003, convertible promissory notes totaling $400,000 were converted into 400,000 shares of the Company's common stock. The Company also issued warrants to purchase 300,000 shares of common stock. The warrants are exercisable at $1.00 per share and have a three-year life. The warrant expiration date of September 29, 2006 was extended until February 15, 2010 in exchange for the investors' agreements to not sell their stock until February 15, 2009.

In September and October 2003, ATI issued 4,000,000 shares of common stock and warrants to purchase 4,000,000 shares of common stock at an exercise price of $2.50 in exchange for $4,000,000 in cash. The warrant expiration date of October 29, 2006 was extended until October 29, 2008 in exchange for lowering the call provision of the warrant. The Company recognized $519,230 in stock issuance costs, which was comprised of $505,500 in third party fees and $13,730 in related legal fees. These costs were charged against additional paid in capital.

In October 2003, ATI entered into a reorganization transaction wherein the stockholders of Arbios Systems retained 1,220,000 shares of the reorganized entity after the transaction. Since Arbios Systems was treated as the acquired company for accounting purposes, those shares were accounted for as being issued as of that date.

In January 2004, Arbios Systems issued 40,000 shares of common stock and warrants to purchase 40,000 shares of common stock to a director as compensation for finder's fees. The warrant has a three-year life and is exercisable at $2.50 per share. The warrant grant resulted in a non-cash charge of $16,000 determined utilizing the Black Scholes pricing model and the economic assumptions listed in Note 1, Stock Based Compensation.

In February 2004, Arbios Systems issued 7,500 shares of common stock and a warrant to purchase 7,500 shares of common stock to a son of a director as compensation for finder's fees. The warrant has a three-year life and is exercisable at $2.50 per share. The warrant grant resulted in a non-cash charge of $11,000 determined utilizing the Black Scholes pricing model and the following economic assumptions: dividend yield 0%, volatility .86-.96, risk free interest rate 3.53%-3.0% and an expected life of 3-7 years.

In March 2004, Arbios Systems entered into a retainer agreement with an investor relations firm and issued a warrant to purchase 150,000 shares of common stock as compensation. The warrant has a five year life and is exercisable at $3.40 per share. Pursuant to the terms of the warrant, the number of shares that can be purchased under the warrant was reduced in December 2004 to 75,000 shares. The warrant grant resulted in a non-cash charge of $203,000 determined utilizing the Black Scholes pricing model and the following economic assumptions: dividend yield 0%, volatility .86-.96, risk free interest rate 3.53%-3.0% and an expected life of 3-7 years.

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(6) Stockholders' Equity Continued:

In July 2004, Arbios Systems entered into an agreement with an investor relations firm based in Switzerland to perform investor relation services for the Company in Europe. The Company issued two warrants to purchase an aggregate of 100,000 shares of common stock. The first warrant for 50,000 shares vested immediately with an exercise price of $1.50 per share and has a five-year expiration term. The second warrant for 50,000 shares vested ratably each month over one year with an exercise price of $3.50 per share and has a five-year expiration term. The warrant grants resulted in a non-cash charge of $298,000 determined utilizing the Black Scholes pricing model and the following economic assumptions: dividend yield 0%, volatility .86-.96, risk free interest rate 3.53%-3.0% and an expected life of 3-7 years.

In October 2004, an option holder exercised his option to purchase 18,000 shares of common stock at an exercise price of $0.15 per share.

In January 2005, the Company completed a $6,611,905 private equity financing to a group of institutional investors and accredited investors. In the offering, 2,991,812 shares of the Company's common stock was sold, at a price of $2.21 per share and the investors also received warrants to purchase an additional 1,495,906 shares of our common stock at an exercise price of $2.90 per share. The warrants are exercisable for five years and can be redeemed by the Company after January 11, 2007 if the average trading price of our common stock for 20 consecutive trading days is equal to or greater than $5.80 and the average trading volume of the common stock is at least 100,000 shares during those 20 days. The placement agent in the offering was issued warrants to purchase 114,404 shares of common stock.

On March 6, 2006, we completed a $1,350,000 private equity financing to a group of institutional investors and accredited investors. In the offering, we sold 1,227,272 shares of our common stock at a price of $1.10 per share to the investors and issued to them warrants to purchase an additional 613,634 shares of our common stock at an exercise price of $1.50 per share. The warrants are exercisable for a period of five years.

The Company also entered into a Registration Rights Agreement with the investors in the January 2005 and March 2006 private placements pursuant to which the Company agreed to register and to maintain an effective registration statement for the shares of common stock issued in the private placement and for the common stock to be issued upon the exercise of warrants issued in the transaction. The Registration Rights Agreement provides for liquidated damages of 1.5% of the aggregate purchase price for each 30 day period, with a maximum of eight 30 day periods (12% maximum liquidating damages), if the Company fails to maintain the effectiveness of such registration statement. In accordance with "Emerging Issues Task Force Issue 00-19,": Accounting for Derivative Financial Instruments Indexed to, and Potentially Settled in, a Company's Own Stock"("EITF 00-19") and other authoritative literature, it was determined that the warrants issued in the January 2005 private placement and the Registration Rights Agreement are free standing derivative financial instruments as defined in EITF 00-19. Further, as of the closing date of the private placement, and as of March 31, 2005, June 30, 2005, September 30, 2005, and December 31, 2005, the warrants meet the requirements of equity classification as specified in EITF 00-19 since the maximum amount of liquidating damages was less than the value ascribed to the difference between the fair value of registered versus unregistered common stock.

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(6) Stockholders' Equity Continued:

On April 23, 2007, the Company completed a private equity financing of $4,861,000 to a group of current and new accredited investors which was reduced by $377,000 in fund raising costs resulting in net proceeds of $4,484,000 to the Company. In the offering, the Company sold 3,739,231 Units. Each Unit was sold at a price of $1.30 per Unit. Each Unit consists of: i) two shares of common stock, ii) one warrant to purchase one share of common stock exercisable for a period of 2.5 years at an exercise price of $1.00 ("A Warrants") and iii) one warrant to purchase one share of the Company's common stock exercisable for a period of 5 years at an exercise price of $1.40 ("B Warrants"), comprising a total of 7,478,462 shares of common stock and warrants to purchase 7,478,462 shares of common stock. The warrants have no provision for cashless exercise and, subject to certain requirements, may be called by the Company provided that the Company's common stock trades above $1.50 for the A Warrants and above $2.80 for the B Warrants for a specified time period. The placement agent received: 1) a cash fee of $252,000, 2) a warrant to purchase 576,615 shares of common stock with an exercise price of $0.65 and a term of five years with a Black Scholes valuation of $275,845 utilizing the following assumptions: risk free interest rate 4.59%, stock price volatility 0.80, expected life 5 years, dividend yield 0%, and 3) a contingent cash fee of 7% of cash proceeds generated in connection with any additional payments, equity purchases or warrant exercises originating from investors from the April 2007 financing within 12 months of the closing of the financing. As a result of the April 2007 financing and pursuant to certain anti-dilution terms of the Company's prior equity financings, the Company increased the number of shares issuable under the warrants issued in the 2005 and 2006 financing by approximately 702,000 shares.

In April 2007, an option holder exercised his option to purchase 18,000 shares of common stock at an exercise price of $0.15 per share.

Restricted Common Stock

In November 2006, the Company issued an aggregate of 89,845 shares of restricted stock to members of the Company's Board of Directors in lieu of cash compensation for services rendered during the second half of 2006. The restricted stock vested 100% on June 30, 2007 and had a market price of $0.64 per share on the date of grant.

In the quarter ended March 31, 2007, the Company issued 82,354 shares of restricted stock to consultants at a price of $0.01 per share. The value of restricted shares issued, based on the closing price of the Company's common stock on the date of issuance, was recorded as a consulting expense of approximately $42,000 during the period the services were provided with a corresponding increase in additional paid in capital.

In May 2007, the Company issued 15,244 shares of restricted stock to a director at a price of $0.01 per share valued at approximately $12,000 which fully vest six months after issuance.

In July 2007, the Company issued 134,375 shares of restricted stock to Board members as compensation for services at a price of $0.01 per share. The value of restricted shares issued, based on the closing price of the Company's common stock on the date of issuance, was expensed for approximately $112,000 with a corresponding increase in additional paid in capital. The Company also issued 200,000 shares of restricted stock to an investor relations consultant at a price of $0.01 per share. The value of such restricted shares issued was approximately $166,000.

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(6) Stockholders' Equity Continued:

In September 2007, the Company issued 100,000 shares of restricted stock to an advisor and current member of the Board of Directors as compensation for services at a price of $0.01 per share. The value of these restricted shares issued, based on the closing price of the Company's common stock on the date of issuance, was expensed for approximately $48,000 with a corresponding increase in additional paid in capital.

Warrants

In February 2005, the Company issued a warrant to purchase 200,000 shares of our common stock to an advisor as additional compensation for services rendered to us during the past 15 months. The warrant has a term of five years and an exercise price of $2.90 per share (the closing trading price of our common stock on the OTC Bulletin Board on the date of grant).

In March 2005, a warrant holder exercised his option to purchase 25,000 shares of common stock at an exercise price of $2.50 per share.

On September 28, 2006, the Company amended outstanding warrants to purchase an aggregate of 1,300,000 shares of common stock of the Company at exercise prices ranging from $1.00 to $2.50 (the "Warrants"). The Warrants were originally issued to investors in 2003 in connection with certain financing transactions and were scheduled to expire on either September 30, 2006 or October 23, 2006.

The amendment extends the expiration date of the Warrants until February 15, 2007. The value of the extension of the warrants was calculated using a Black Scholes valuation utilizing the same assumptions set forth in Note 1, Summary of Significant Accounting Policies, and resulted in a charge of $103,000 which was booked to our income statement during the third quarter of 2006.

On October 29, 2006, the Company amended outstanding warrants to purchase an aggregate of 4,375,000 shares of common stock of the Company, each of which has an exercise price of $2.50 (the "Warrants"). The Warrants were originally issued to investors in 2003 in connection with certain financing transactions. Warrants to purchase 3,975,000 shares of common stock were scheduled to expire on October 29, 2006 and 400,000 of the Warrants were scheduled to expire on February 15, 2007. The amendment extended the expiration date of the Warrants until October 29, 2008. The value of the extension of the warrants was calculated using a Black Scholes valuation utilizing the same assumptions set forth in Note 1, Summary of Significant Accounting Policies, and resulted in a charge of $380,000 which was booked to our income statement during the fourth quarter of 2006.

In addition, the Warrants contain a call provision whereby the Company can require the holders of the Warrants to exercise them if the market trading price of the Company's common stock trades at a level of at least $4.00 per share for 20 consecutive trading days (the "Call Provision"). In addition to amending the expiration date of the Warrants as described in the preceding paragraphs, the Company amended the Call Provision by lowering the trading price at which the Call Provision may be triggered from $4.00 per share to $3.25 per share.

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(6) Stockholders' Equity, Continued:

In accordance with "EITF 00-19 and other authoritative literature, it was determined that the warrants issued in the January 2005 and March 2006 private placements and the related registration rights agreements, discussed below, are free standing derivative financial instruments as defined in EITF 00-19. In accordance with EITF 00-19, the value and balance sheet classification of the warrants are reviewed each reporting period and, while the warrants are classified as a liability, any changes in the value of the warrants on a re-measurement date will be recorded in the statement of operations.

On March 6, 2006, the Company completed a $1,350,000 private equity financing to a group of institutional investors and an accredited investor. In the offering, the Company sold 1,227,272 shares of its common stock at a price of $1.10 per share to the investors and issued to them warrants to purchase an additional 613,634 shares of its common stock at an exercise price of $1.50 per share. The Company also entered into a Registration Rights Agreement with the investors in the March 2006 private placement pursuant to which the Company agreed to register and to maintain an effective registration statement for the shares of common stock issued in the private placement and for the common stock to be issued upon the exercise of warrants issued in the transaction.

In January 2005, the Company completed a $6,611,905 private equity financing to a group of institutional investors and accredited investors. In the offering, 2,991,812 shares of the Company's common stock were sold, at a price of $2.21 per share and the investors also received 5-year warrants to purchase an additional 1,495,906 shares of our common stock at an exercise price of $2.90 per share. The placement agent received 5-year warrants to purchase 114,404 shares of the Company's common stock in addition to cash compensation of $253,000 plus expenses. The Company also entered into a Registration Rights Agreement with the investors in the January 2005 private placement pursuant to which the Company agreed to register and to maintain an effective registration statement for the shares of common stock issued in the private placement and for the common stock to be issued upon exercise of warrants issued in the transaction. As a result of the Company's March 6, 2006 private equity financing discussed above, an anti-dilution provision from the January 2005 private equity financing was triggered which resulted in an additional 94,033 warrant shares being issuable to warrant holders from the January 2005 private equity financing. Additionally, the exercise price was adjusted from $2.90 to $2.74 per share. The warrants are exercisable for five years from the date of issuance and can be redeemed by the Company after January 11, 2007 if the average trading price of the Company's common stock for 20 consecutive trading days is equal to or greater than $5.80 and the average trading volume of the common stock is at least 100,000 shares during those 20 days.

The registration rights agreement associated with the January 2005 and March 2006 private placements provides for liquidated damages of 1.5% of the aggregate purchase price for each 30 day period for a maximum of eight 30 day periods, capped at 12%, if the Company failed to register such shares, or fails to warrant shares or maintain the effectiveness of such registration. As of the date the warrants were issued and for each subsequent reporting period through December 31, 2005, the Company determined that settlement in unregistered shares was an economic settlement alternative to delivering unregistered shares and consequently recorded the fair value of the warrants as equity. However, as of March 31, 2006 for the January 2005 private placement financing and as of September 30, 2006 for the March 2006 private placement, due primarily to a reduction in the fair market value of the Company's common stock share price, the potential liquidated damages exceeded the reasonable discount between registered and unregistered shares thereby making the settlement alternative uneconomic, and the warrants, valued at $1,285,000

were reclassified from equity to accrued warrant liability, based on the fair value of the warrants. For the quarters ended June 30, September 30 and December 31, 2006, the potential liquidated damages continued to exceed a reasonable discount between the fair value of the registered and unregistered shares, thereby making net share settlement an uneconomic alternative. The accrued warrant liability has been reduced by $521,000 based on the change in the fair value of the warrant liability. The fair value of the warrant liability at December 31, 2006 was $764,000.

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(6) Stockholders' Equity, Continued:

The warrants were valued using a Black Scholes option pricing model. Further the warrant agreements from the January 2005 and March 2006 financings contain anti-dilution provisions whereby in the event that, during the five year life of the warrants, the Company completes one or more rounds of financing at a lower common stock offering price than the then effective price of the warrants, 1) the exercise price of the warrants would be adjusted downward based on a weighted average formula described in the agreement and 2) additional warrant shares would be allocated to the warrant holder based on the described formula. Such potential changes in exercise price and additional warrant shares were taken into account in the valuation of the anti-dilution provision based on the estimated potential dilutive effects of future successive equity financings including consideration of potential cash requirements, potential size, timing and terms of such financings, projected future prices and volatility of the Company's stock, and other factors. The value of those estimated warrant shares issuable, together with the adjusted value of the estimated warrant shares with reduced exercise price, were determined using the Black Scholes option pricing model.

For the valuation of all warrants including their anti-dilution provisions, the assumptions used in the application of the Black Scholes option pricing model are as follows: risk free interest rate 3.71%-5.07%, stock price volatility 0.71-0.83, expected life 1-5 years, dividend yield 0%.

On February 2, 2007, the Company amended certain terms of outstanding warrants to purchase an aggregate of 907,500 shares of common stock of the Company; 900,000 shares have an exercise price of $1.00 and 7,500 shares have an exercise price of $2.50. The warrants were originally issued in 2003 and 2004 in connection with certain financing transactions and were scheduled to expire in February 2007. The amendments extend the expiration date for warrants to purchase 900,000 shares of common stock with an exercise price of $1.00 until February 15, 2008 and extend the expiration date for the warrants to purchase 7,500 shares of common stock with an exercise price of $2.50 until October 29, 2008. The value of the extension of the warrants was calculated using the Black Scholes pricing model and resulted in a charge of approximately $59,000, which was recorded in the statement of operations during the first quarter of 2007.

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(6) Stockholders' Equity, Continued:

In addition, all of the extended warrants contain a call provision whereby the Company can require the holders of the warrants to exercise the warrants if the market trading price of the Company's common stock trades at a level of at least $4.00 per share for 20 consecutive trading days (the "Call Provision"). In addition to amending the expiration date of the warrants as described in the preceding paragraph, the Company amended the Call Provision by lowering the trading price at which the Call Provision may be triggered from $4.00 per share to $3.25 per share.

In March 2007, warrants to purchase 225,000 shares of common stock exercisable at $1.50 per share were issued in conjunction with the acquisition of certain patents. The fair value of the warrants, which were expensed in March 2007, was determined to be approximately $75,000 using the Black Scholes pricing model utilizing the following assumptions: risk free interest rate 4.48%, stock price volatility 0.79, expected life 6 years, dividend yield 0%.

On April 23, 2007, the Company completed a private equity financing of $4,861,000 to a group of current and new accredited investors which was reduced by $377,000 in fund raising costs resulting in net proceeds of $4,484,000 to the Company. In the offering, the Company sold 3,739,231 Units. Each Unit was sold at a price of $1.30 per Unit. Each Unit consists of: i) two shares of common stock, ii) one warrant to purchase one share of common stock exercisable for a period of 2.5 years at an exercise price of $1.00 ("A Warrants") and iii) one warrant to purchase one share of the Company's common stock exercisable for a period of 5 years at an exercise price of $1.40 ("B Warrants"), comprising a total of 7,478,462 shares of common stock and warrants to purchase 7,478,462 shares of common stock. The warrants have no provision for cashless exercise and, subject to certain requirements, may be called by the Company provided that the Company's common stock trades above $1.50 for the A Warrants and above $2.80 for the B Warrants for a specified time period. The placement agent received: 1) a cash fee of $252,000, 2) a warrant to purchase 576,615 shares of common stock with an exercise price of $0.65 and a term of five years with a Black Scholes valuation of $275,845 utilizing the following assumptions: risk free interest rate 4.59%, stock price volatility 0.80, expected life 5 years, dividend yield 0%, and 3) a contingent cash fee of 7% of cash proceeds generated in connection with any additional payments, equity purchases or warrant exercises originating from investors from the April 2007 financing within 12 months of the closing of the financing. As a result of the April 2007 financing and pursuant to certain anti-dilution terms of the Company's prior equity financings, the Company increased the number of shares issuable under the warrants issued in the 2005 and 2006 financing by approximately 702,000 shares.

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(6) Stockholders' Equity, Continued:

At December 31, 2007, outstanding warrants to acquire shares of the Company's common stock are as follows:

Number of Shares	Exercise Price	Expiration date
100,000	$ 0.15	August 18, 2009
900,000	1.00	February 15, 2010
50,000	1.00	July 3, 2008
4,382,500	2.50	October 29, 2008
75,000	3.40	April 1, 2009
50,000	1.50	August 4, 2009
50,000	3.50	August 4, 2009
200,000	1.91	February 1, 2010
2,312,702	1.91	January 11, 2010
751,877	1.22	March 6, 2011
225,000	1.50	March 29, 2013
3,739,231	1.00	October 23, 2009
3,739,231	1.40	April 23, 2012
576,615	.65	April 23, 2012
17,152,156		

The weighted average exercise price of warrants outstanding at December 31, 2007 was $1.62 and the weighted average remaining contractual life of the warrants was 2.23 years.

Warrant transactions are summarized as follows:

For the year ended December 31,	
2007	**2006**

	Shares	Weighted Average Price	Shares	Weighted Average Price
Warrants at beginning of year	8,165,477	$ 2.29	7,457,810	$ 2.30
Warrants issued	9,026,679	$ 1.22	707,667	$ 1.66
Warrants forfeited	(40,000)	$ 2.50	-	
Warrants at end of year [1]	17,152,156	$ 1.62 [2]	8,165,477	$ 2.29 [2]

(1) All warrants are exercisable at 12/31/07

(2) Amount reflects adjusted exercise price for certain warrants due to anti-dilution provision discussed above.

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(6) Stockholders' Equity, Continued:

2001 Stock Option Plan

In 2001, Arbios Systems adopted the 2001 Stock Option Plan (the "2001 Plan") for the purpose of granting incentive stock options and/or non-statutory stock options to employees, consultants, directors and others. Under the 2001 Plan, the Company is authorized to grant options to purchase up to 1,000,000 shares. The 2001 Plan is administered by the Board of Directors of the Company or by a committee of the Board. However, in connection with the reorganization transaction between Arbios Systems and ATI in October 2003, Arbios Systems assumed all of the 314,000 outstanding options granted by ATI under its existing stock option plan and the options previously issued under that plan were cancelled. None of the terms of the assumed options were changed. The options assumed under the Arbios Systems Plan are identical to the options that were previously granted under the ATI Plan.

2005 Stock Incentive Plan

In 2005, Arbios Systems adopted the 2005 Stock Incentive Plan (the "2005 Plan") for the purpose of granting incentive stock options and/or non-statutory stock options to employees, consultants, directors and others. The 2005 Plan was amended to increase the shares authorized for issuance under the 2005 Plan from 3,000,000 to 4,000,000 shares at the 2007 annual shareholders meeting. The 2005 Plan is administered by the Board of Directors of the Company or by a committee of the Board.

For the years ended December 31, 2007 and 2006, the Company granted 0 and 30,000 options, respectively, to consultants and recorded expenses of $0 and $33,000 for the years ended December 31, 2007 and 2006 relating to the vested portion of these options.

Stock Options

Transactions under the 2001 Plan during the year ended December 31, 2007 and 2006 are summarized as follows:

	For the year ended December 31,			
	2007		2006	
	Shares	Weighted Average Price	Shares	Weighted Average Price
Options at beginning of year	982,000	$ 1.88	982,000	$ 1.88
Options exercised	(18,000)	.15		
Options forfeited	(261,000)	2.11	-	
	703,000	$ 1.83	982,000	$ 1.88

Options at end of year						
Options exercisable at end of year	703,000	$	1.83	978,000	$	1.87

As of December 31, 2007, no options were available for future grant under the 2001 Stock Option Plan.

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ARBIOS SYSTEMS, INC.

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(6) Stockholders' Equity, Continued:

Transactions under the 2005 Plan during the year ended December 31, 2007 and 2006 are summarized as follows:

	For the year ended December 31, 2007		For the year ended December 31, 2006	
	Shares	Weighted Average Price	Shares	Weighted Average Price
Options at beginning of year	1,337,000	$ 1.83	905,000	$ 1.98
Options issued	1,105,000	$ 0.68	432,000	$ 1.25
Options forfeited	_(250,000)	$ 1.30		
Options at end of year	2,192,000	$ 1.26	1,337,000	$ 1.75
Options exercisable at end of year	1,453,000	$ 1.54	1,003,000	$ 1.83

As of December 31, 2007, 1,387,000 options were available for future grant under the 2005 Plan.

Additional information with respect to option activity is summarized as follows:

	December 31, 2007				
	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Shares	Weighted Average Remaining Contractually (in years)	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
$0.15 - $0.90	1,223,000	6.27	$ 0.69	484,000	$ 0.66
$1.00 - $1.85	1,171,000	2.78	1.63	1,171,000	1.63
$2.00 - $2.97	491,000	3.42	2.57	491,000	2.57
$3.40	10,000	1.32	3.40	10,000	3.40
	2,895,000	4.36	1.40	2,156,000	1.63

The following summarizes the activity of the Company's non-vested stock options for the year ended December 31, 2007.

	Shares	Weighted Average Exercise Price
Non vested at December 31, 2006	337,000	$ 1.48
Granted	1,105,000	.68
Non vested cancellations	(143,000)	.80
Vested	(560,000)	1.10
Non vested at December 31, 2007	739,000	$ .70

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(7) Income Taxes:

The following table presents the current and deferred tax provision for (benefit from) federal and state income taxes for the years ended December 31, 2007 and 2006:

Current	2007	2006
Federal	-	-
State	-	-
Total Current Liability	-	-
Deferred		
Federal	$ (1,599,000)	$ (1,430,000)
State	$ (496,000)	$ (488,000)
Total Deferred Liability	$ (2,095,000)	$ (1,918,000)
Valuation Allowance	$ 2,095,000	$ 1,918,000
Total	-	-

At December 31, 2007, components of net deferred tax assets (liabilities) in the accompanying balance sheet include the following amounts of deferred tax liabilities:

Deferred Tax Assets (Liability)	2007	2006
Current		
Interest	$ 105,000	$ 105,000
Intangible	194,000	194,000
Patent	328,000	-
Deferred state tax	(546,000)	(377,000)
Restricted stocks	125,000	12,000
Stock options	351,000	276,000
Credits	-	150,000
Other	37,000	63,000
Non-Current		
NOL	6,136,000	4,439,000
Credits	231,000	-
Amortization	(105,000)	(92,000)
Depreciation	(6,000)	(15,000)
Net Deferred Tax Assets	6,850,000	4,755,000
Less Valuation Allowance	(6,850,000)	(4,755,000)

Net Deferred Tax Asset (Liability)	$ -	$ -

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(7) Income Taxes Continued:

As of December 31, 2007, the Company has approximately $14,200,000 and $14,200,000 of Net Operating Losses ("NOL") for federal and state purposes, respectively, which begin to expire between 2014 and 2027 for federal and 2012 and 2017 for state purposes. The utilization of NOL carryforwards may be limited under the provisions of Internal Revenue Code Section 382 and similar state provisions.

Section 382 of the Internal Revenue Code of 1986 generally imposes an annual limitation on the amount of NOL carryforwards that may be used to offset taxable income where a corporation has undergone significant changes in its stock ownership.

The income tax expense differs from the amounts computed by applying the United States federal income tax rate of 34% to income taxes as a result of the following for the years ended December 31, 2007 and 2006:

	2007	2006
Federal tax on pretax income at statutory rates	$ (1,888,000)	$ (1,459,000)
State tax, net of federal benefit	(303,000)	(327,000)
Other	96,000	(131,000)
Valuation Allowance	2,095,000	1,917,000
Total	$ -	$ -

(8) Related Party Transactions:

In 2003, a Director received warrants to purchase 50,000 shares of common stock exercisable at $1 per share as a finder's fee.

In 2004, the son of a Director received 7,500 shares of common stock valued at $1 per share and warrants to purchase 7,500 shares of common stock exercisable at $2.50 per share as a finder's fee.

In 2004, a Director received common stock valued at $1.00 per share and warrants to purchase 40,000 shares of common stock exercisable at $2.50 per share as a finder's fee.

In 2005, a Director received cash compensation totaling $23,687 and a 5 year option to purchase 30,000 shares of common stock at $1.80 per share for consulting services.

In 2007, the Company entered into a verbal agreement with AFO Advisors, LLC to provide fundraising, strategic, and financial advisory services. Amy Factor is the President of AFO Advisors LLC, and provides investor relations, strategic, and management services to the Company in her current role as a director and Vice Chairman of the Board. The Company pays AFO Advisors LLC a monthly retainer of $12,500 pursuant to a verbal agreement and had paid a total of $87,500 in FY 2007 as well as a restricted stock grant to purchase 44,118 shares of common stock. Additionally, Ms. Factor was granted a restricted stock grant of 100,000 shares of common stock of which 50% of the shares would vest on January 1, 2008 and the remaining 50% would vest on pro-rata monthly basis during the period January 1, 2008 through June 30, 2008.

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(9) Employee Benefit Plan:

In May 2005, the Company adopted a 401K defined contribution profit-sharing plan covering its employees. Contributions to the plan are based on employer contributions as determined by the Company and allowable discretionary contributions, as determined by the Company's Board of Directors, subject to certain limitations. Contributions by the Company to this plan amounted to $23,962 and $27,331 for the years ended December 31, 2007 and 2006.

(10) Subsequent Events:

On February 15, 2008, the Company amended outstanding warrants to purchase an aggregate of 900,000 shares of common stock of the Company, which have an exercise price of $1.00 per share (the "Warrants"). The Warrants were originally issued in 2003 in connection with certain financing transactions and were scheduled to expire on February 15, 2008. The amendment extends the expiration date of the Warrants until February 15, 2010. The value of the extension of the warrants was calculated using the Black Scholes pricing model and resulted in a charge of approximately $176,000, which will be recorded in the statement of operations during the first quarter of 2008.

In addition, the Warrants contain a call provision whereby the Company can require the holders of the Warrants to exercise them if the Company's common stock trades at a level of at least $3.25 per share for 20 consecutive trading days (the "Call Provision"). In addition to amending the expiration date of the Warrants as described in the preceding paragraph, the Company amended the Call Provision by lowering the trading price at which the Call Provision may be triggered from $3.25 per share to $2.25 per share.