

BIO IMAGING TECHNOLOGIES INC

Form S-3/A

June 13, 2008

Table of Contents

As filed with the Securities and Exchange Commission on June ___, 2008

Registration No. 333-150641

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
AMENDMENT NO. 1**

**to
FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933
BIO-IMAGING TECHNOLOGIES, INC.
(Exact name of registrant as specified in its charter)**

Delaware

(State or other jurisdiction of incorporation or organization)

11-2872047

(I.R.S. Employer Identification Number)

**826 Newtown-Yardley Road, Newtown, Pennsylvania 18940-1721
(267) 757-3000**

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

Mark L. Weinstein, President and Chief Executive Officer

**826 Newtown-Yardley Road, Newtown, Pennsylvania 18940-1721
(267) 757-3000**

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

Copies of all communications, including all communications sent to the agent for service, should be sent to:

**Emilio Ragosa, Esq.
Morgan, Lewis & Bockius LLP
502 Carnegie Center
Princeton, New Jersey 08540
(609) 919-6600**

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: From time to time, at the discretion of the selling stockholders, as soon as practicable after this registration statement becomes effective.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, check the following box.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or reinvestment interest plans, check the following box.

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

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

If this form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. o

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

Large accelerated filer o Accelerated filer o Non-accelerated filer o Smaller reporting company

(Do not check if a smaller reporting company)

CALCULATION OF REGISTRATION FEE

| Title Of Shares To Be Registered | Amount To Be Registered | Proposed Maximum Aggregate Price Per Share | Proposed Maximum Aggregate Offering Price | Amount Of Registration Fee |
|---|--------------------------------|---|--|-----------------------------------|
| Common Stock, \$0.00025 par value | 2,287,582(1) | \$6.80 (2) | \$15,555,558 | \$611(3) |

(1) Represents 2,287,582 shares of common stock issued as partial consideration in connection with the acquisition of Phoenix Data Systems, Inc. Pursuant to Rule 416 of the Securities Act of 1933, as amended, this registration statement shall also cover any additional shares of common stock by reason of any stock dividend, stock split, recapitalization or other similar transaction or to cover such additional shares as may hereinafter be

offered or issued to prevent dilution resulting from stock splits, stock dividends, recapitalizations or certain other capital adjustments, effected without the registrant's receipt of consideration, which results in an increase in the number of the outstanding shares of registrant's common stock.

- (2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c). Such price is based upon the average of the high and low prices of the registrant's common stock as reported on the NASDAQ Global Market on June 9, 2008.
- (3) The registrant already paid \$672 in connection with the initial filing of the Form S-3 on May 5, 2008, which was calculated using a proposed maximum

aggregate price
per share of
\$7.47, the
average of the
high and low
prices of the
registrant's
common stock
as reported on
the NASDAQ
Global Market
on April 29,
2008.

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(A) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(A), MAY DETERMINE.

Table of Contents

The information in this prospectus is not complete and may be changed. The selling stockholders named in this prospectus may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED JUNE 9, 2008

PROSPECTUS

BIO-IMAGING TECHNOLOGIES, INC.

2,287,582 Shares of Common Stock

The stockholders of Bio-Imaging listed in this prospectus are offering and selling an aggregate of 2,287,582 shares of our common stock. All 2,287,582 shares of common stock were issued upon consummation of the acquisition of Phoenix Data Systems, Inc.

The shares of our common stock may be offered and sold from time to time by the selling stockholders identified in this prospectus, or their pledgees, donees, transferees or other successors-in-interest through public or private transactions at prevailing market prices, at prices related to prevailing market prices or at privately negotiated prices. The selling stockholders will pay all underwriting discounts and selling commissions, if any, applicable to the sale of the shares.

Our common stock is traded on the NASDAQ Global Market under the ticker symbol BITI. On June 9, 2008, the last reported sale price of our common stock was \$6.85 per share. You are urged to obtain current market quotations for the common stock.

Investing in our common stock involves a high degree of risk. See Risk Factors beginning on page 4 for a discussion of certain factors that you should consider before you invest in any of the common stock being offered with this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is [_____], 2008.

Table of Contents

| | Page |
|---|-------------|
| <u>Prospectus Summary</u> | 1 |
| <u>The Offering</u> | 4 |
| <u>Risk Factors</u> | 4 |
| <u>Special Note Regarding Forward-Looking Statements</u> | 10 |
| <u>Use of Proceeds</u> | 11 |
| <u>Selling Stockholders</u> | 11 |
| <u>Plan of Distribution</u> | 13 |
| <u>Legal Matters</u> | 14 |
| <u>Experts</u> | 15 |
| <u>Where You Can Find More Information</u> | 15 |
| <u>Incorporation by Reference</u> | 15 |
| <u>Indemnification of Directors and Officers</u> | 16 |
| <u>Exhibits</u> | 18 |
| Opinion of Morgan, Lewis & Bockius LLP | |
| Consent of PricewaterhouseCoopers LLP | |
| Consent of Grant Thornton LLP | |
| As used in this prospectus, references to Bio-Imaging, we, us, and our refer to Bio-Imaging Technologies, Inc. unless the context otherwise requires. | |

PROSPECTUS SUMMARY

About This Prospectus

This prospectus is a part of a registration statement on Form S-3/A filed by us with the Securities and Exchange Commission, referred to herein as the SEC, to register 2,287,582 shares of our common stock. All 2,287,582 shares were issued upon consummation of the acquisition of Phoenix Data Systems, Inc., as further discussed below. This prospectus does not contain all of the information set forth in the registration statement, certain parts of which are omitted in accordance with the rules and regulations of the SEC. Accordingly, you should refer to the registration statement and its exhibits for further information about us and our common stock. Copies of the registration statement and its exhibits are on file with the SEC. Statements contained in this prospectus concerning the documents we have filed with the SEC are not intended to be comprehensive, and in each instance we refer you to the copy of the actual document filed as an exhibit to the registration statement or otherwise filed with the SEC.

We have not authorized anyone to provide you with information different from that contained or incorporated by reference in this prospectus. The selling stockholders are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of common stock.

Table of Contents

About the Phoenix Data Systems, Inc. Acquisition

On March 24, 2008, we acquired Phoenix Data Systems, Inc. (Phoenix), a Pennsylvania corporation (the Acquisition). The Acquisition was made pursuant to an Agreement and Plan of Merger, dated March 24, 2008, by and among Bio-Imaging Technologies, Inc. (the Company), Bio-Imaging Acquisition Corporation, a Pennsylvania corporation and wholly-owned subsidiary of the Company (Merger Sub), and Phoenix and its Stockholders Representative. Pursuant to the terms of the Merger Agreement, Phoenix will merge with and into Merger Sub. Following the consummation of the Acquisition, Phoenix will cease to exist and Merger Sub will be a wholly-owned subsidiary of Bio-Imaging.

Under the terms of the Merger Agreement, we acquired all of Phoenix 's outstanding capital stock. The total consideration paid by us to Phoenix 's stockholders was \$7,000,000 in cash and 2,287,582 shares of common stock, par value \$0.00025 per share, of Bio-Imaging, with an average closing price per share over the last thirty (30) trading days ending and including March 19, 2008 of \$7.42 (Common Stock). The aggregate purchase price is subject to a post-closing adjustment based on the Tangible Net Worth (as defined in the Merger Agreement) of Phoenix on the Closing Date (as defined in the Merger Agreement). Pursuant to the terms of the Merger Agreement, five percent (5%) of the aggregate consideration is to be held in escrow for a period not to exceed three (3) business days following the finalization of the Closing Tangible Net Worth Statement (as defined in the Merger Agreement), which should take place within sixty to ninety (60-90) days from the Closing Date. Additionally, ten percent (10%) of the aggregate consideration is to be held in escrow to cover any potential indemnification claims under the Merger Agreement for a period ending no later than March 31, 2009.

In connection with the Acquisition, the stockholders of Phoenix entered into various agreements. The stockholders of Phoenix executed stockholders ' agreements, whereby each stockholder agreed, among other things, to approve the Acquisition and not to compete in the business area occupied by Phoenix at the time of the Acquisition for a reasonable period of time. All stockholders executed lockup agreements, whereby all stockholders agreed not to directly or indirectly offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of any shares of the Company 's Common Stock received pursuant to the Merger Agreement for a period beginning on the date the Merger Agreement was executed and continuing to and including the date one hundred and eighty (180) days after the Closing Date (the Initial Lockup Period Date), and certain additional stockholders agreed not to directly or indirectly offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of sixty seven percent (67%) of the shares of the Company 's Common Stock received pursuant to the Merger Agreement for a period beginning on the Initial Lockup Period Date and continuing to and including the date of the first anniversary of the Closing Date.

Additionally, pursuant to the terms of the Merger Agreement, we agreed to register the shares of our Common Stock issued as part of the total merger consideration on a registration statement with the U.S. Securities and Exchange Commission within thirty (30) days of the Closing Date. We also agreed to use our commercially reasonable efforts to have the registration statement declared effective within ninety (90) days of the Closing Date. Notwithstanding the foregoing, our obligations to file a registration statement will no longer apply upon the later to occur of (i) when the shares of Common Stock issued in connection with the Acquisition are sold or may be sold pursuant to Rule 144 promulgated under the Securities Act of 1933, as amended, and (ii) the expiration of the lockup agreements entered into in connection with the Acquisition.

The foregoing description of the Merger Agreement and related agreements are qualified in their entirety by reference to the full texts of each such agreement. The Merger Agreement was filed as an exhibit to a Current Report on Form 8-K/A filed with the Securities and Exchange Commission on March 28, 2008.

About Bio-Imaging Technologies, Inc.

Bio-Imaging Technologies, Inc. is a global pharmaceutical contract service organization, providing services that support the product development process of the pharmaceutical, biotechnology and medical device industries. We specialize in assisting our clients in the design and management of the medical imaging component of clinical trials for all modalities, which includes computerized tomography (CT), magnetic resonance imaging (MRI), radiography, dual energy x-ray absorptiometry (DXA/DEXA), positron emission tomography (PET), single photon emission computerized tomography (SPECT), quantitative coronary angiography (QCA), cardiac MRI and CT,

Table of Contents

intravascular ultrasound (IVUS), peripheral quantitative angiography (QVA), central nervous system (CNS) MRI and ultrasound. We provide services that include the processing and analysis of medical images and the data-basing and regulatory submission of medical images, quantitative data and text.

We utilize proprietary processes and software applications in providing our services to pharmaceutical companies conducting clinical studies in which medical imaging modalities are used to evaluate the efficacy and safety of pharmaceuticals, biologics or medical devices. Our digital image processing and computer analysis techniques enable technologists or radiologists to make highly precise measurements and biostatistical inferences about drug or device effects. The resulting data enables our clients and regulatory reviewers, primarily the U.S. Food and Drug Administration and comparable European agencies, to evaluate product efficacy and safety. In addition, we have developed specialized computer services and software applications that enable independent radiologists and other medical specialists involved in clinical trials to review medical image data in an entirely digital format. Our services also include the regulatory submission of medical images, quantitative data and text.

We are directing our marketing and sales efforts towards those clinical development areas that use medical imaging. These areas include oncology, musculoskeletal, central nervous system, neurovascular and cardiovascular, among others.

We have a European facility in Leiden, the Netherlands that provides centralized image processing services for our European clients. We manage our services for European-based clinical trials from this facility. Our European facility has similar processing and analysis capabilities as our United States headquarters.

In February 2007, we acquired 100% of the stock of Theralys S.A., referred to as Theralys, a privately held company located in Lyon, France. Theralys is an imaging core lab providing centralized blinded read services and customized image analysis services primarily in the field of central nervous system disorders and neurovascular diseases. Theralys' s proprietary image processing software enables the introduction of quantitative imaging markers in the design of clinical trials for Neurovascular and CNS disorders, which include stroke, secondary prevention drugs, multiple sclerosis and dementia, including Alzheimer' s disease. Theralys' s proprietary and validated software for clinical trials includes applications that enable the automated quantitation of various imaging parameters such as brain, white matter lesion and hippocampal volumes and MRI diffusion and perfusion.

Our CapMed division includes the Personal Health Record (PHR) software and the patent-pending Personal HealthKeytm technology. The PHR is a software application that enables users to manage and store personal health information, including their medical images, on the privacy of their desktop computer, while linking directly to sponsor-directed resources such as drug information, patient education, or disease guidelines. The Personal HealthKeytm plugs into a computer' s USB port, allowing doctors and patients easy access to the patient' s medical record without the need for additional hardware or software, and it is password protected.

We were incorporated in Delaware in 1987 under the name Wise Ventures, Inc. Our name was changed to Bio-Imaging Technologies, Inc. in 1991. The address of our principal executive offices is 826 Newtown-Yardley Road, Newtown, Pennsylvania, 18940, and our telephone number is 267-757-3000. Our Internet website is www.bioimaging.com. We also utilize the Internet website www.capmed.com for the CapMed division of our business. The information on our Internet websites are not incorporated by reference in this prospectus, and our website addresses are included in this prospectus as a textual reference only.

Table of Contents

THE OFFERING

| | |
|--|--|
| Number of shares of our common stock offered by the selling stockholders | 2,287,582 shares |
| Number of shares of our common stock outstanding on June 9, 2008 | 14,332,021 shares |
| Use of proceeds | We will not receive any proceeds from the sale of shares in this offering. |

NASDAQ Global Market symbol **BITI**

RISK FACTORS

The more prominent risks and uncertainties inherent in our business are described below. However, additional risks and uncertainties may also impair our business operations. If any of the following risks actually occur, our business, financial condition or results of operations may suffer. Investing in our common stock involves a high degree of risk. Any of the following factors could harm our business and future results of operations and you could lose all or part of your investment.

Risks Related to Our Company and Business

We may incur financial losses because contracts may be delayed or terminated or reduced in scope for reasons beyond our control.

Our clients may terminate or delay their contracts for a variety of reasons, including, but not limited to: unexpected or undesired clinical results;

the client's decision to terminate the development of a particular product or to end a particular study;

insufficient patient enrollment in a study;

insufficient investigator recruitment;

failure to perform our obligations under the contract; or

the failure of products to satisfy safety requirements.

In addition, we believe that FDA-regulated companies may proceed with fewer clinical trials or conduct them without assistance of contract service organizations if they are trying to reduce costs as a result of cost containment pressures associated with healthcare reform, budgetary limits or changing priorities. These factors may cause such companies to cancel contracts with contract service organizations.

We cannot assure you that our clients will continue to use our services or that we will be able to replace, in a timely or effective manner, departing clients with new clients that generate comparable revenues. Further, we cannot assure you that our clients will continue to generate consistent amounts of revenues over time.

The loss, reduction in scope or delay of a large contract or the loss or delay of multiple contracts could materially adversely affect our business, although our contracts entitle us to receive all fees earned up to the time of termination. The loss of business from our client, Novartis Pharmaceutical, Inc., would have a material adverse effect on our financial condition.

Table of Contents

We depend on a small number of industries and clients for all of our business, and the loss of one such significant client could cause revenues to drop quickly and unexpectedly.

We depend on research and development expenditures by pharmaceutical, biotechnology and medical device companies to sustain our business. Our operations could be materially and adversely affected if:

clients' businesses experience financial problems or are affected by a general economic downturn;

consolidation in the pharmaceutical, biotechnology or medical device industries leads to a smaller client base for us; or

clients reduce their research and development expenditures.

One client, Hoffmann-La Roche, encompassing 11 projects represented 10.2% of our service revenues for the three months ended March 31, 2008. No one client accounted for more than 10% of our service revenue for the three months ended March 31, 2007. The loss of business from a significant client or our failure to continue to obtain new business to replace completed or canceled projects would have a material adverse effect on our business and revenues.

Our contracted/committed backlog may not be indicative of future results.

Our reported contracted/committed backlog of \$96.3 million at March 31, 2008, excluding PDS backlog, is based on anticipated service revenue from uncompleted projects with clients. Backlog is the expected service revenue that remains to be earned and recognized on signed and verbally agreed to contracts. Contracts included in backlog are subject to termination by our clients at any time. In the event that a client cancels a contract, we would be entitled to receive payment for all services performed up to the cancellation date and subsequent client authorized services related to the cancellation of the project. The duration of the projects included in our backlog range from less than three months to seven years. We cannot assure that this backlog will be indicative of future results. A number of factors may affect backlog, including:

the variable size and duration of the projects (some are performed over several years);

the loss or delay of projects;

the change in the scope of work during the course of a project; and

the cancellation of such contracts by our clients.

Also, if clients delay projects, the projects will remain in backlog, but will not generate revenue at the rate originally expected. Accordingly, the historical relationship of backlog to revenues may not be indicative of future results.

We have experienced substantial expansion in the past, and if we fail to properly manage that expansion, our business may suffer.

Our business has expanded substantially in the past. Our continuing sales and marketing efforts have resulted in increased revenues. The number of projects under management was 202, excluding PDS projects, in the first quarter of 2008. In addition, we acquired Phoenix Data Systems in March 2008, Theralys in February 2007, HeartCore in December 2004 and CapMed in November 2003.

Rapid expansion, internally or through acquisitions, could strain our operational, human and financial resources. If we fail to properly manage this expansion, our results of operations and financial condition might be adversely affected. In order to manage our expansion, we must:

effectively market our services to pharmaceutical, biotechnology and medical device companies;

continue to improve operating, administrative and information systems;

accurately predict future personnel and resource needs to meet client contract commitments;

successfully integrate our acquired companies and businesses;

track the progress of on-going client projects; and

attract and retain qualified management, sales, professional and technical operating personnel.

Table of Contents

We will face additional risks in expanding foreign operations. Specifically, we might find it difficult to:
assimilate differences in foreign business practices and regulations;

hire and retain qualified personnel; and

overcome language and cultural barriers.

We recently acquired PDS and may engage in future acquisitions, which may be expensive and time consuming and from which we may not realize anticipated benefits.

We recently acquired PDS and may acquire additional businesses, technologies and products if we determine that these additional businesses, technologies and products complement our existing business or otherwise serve our strategic goals. Either as a result of the acquisition of PDS or future acquisitions undertaken, the process of integrating the acquired business, technology or product may result in operating difficulties and expenditures and may absorb significant management attention that would otherwise be available for ongoing development of our business.

Moreover, we may never realize the anticipated benefits of any such acquisition. Such acquisitions could result in potentially dilutive issuances of our securities, the incurrence of debt and contingent liabilities and amortization expenses related to intangible assets, which could adversely affect our results of operations and financial condition.

Loss of key personnel, or failure to attract and retain additional personnel, may cause the success and growth of our business to suffer.

Future success depends on the personal efforts and abilities of the principal members of our senior management to provide strategic direction, develop business, manage operations and maintain a cohesive and stable environment. Specifically, we are dependent upon Mark L. Weinstein, President and Chief Executive Officer, David A. Pitler, Senior Vice President Operations, Colin G. Miller, Ph.D., Senior Vice President Medical Affairs and Ted I. Kaminer, Senior Vice President and Chief Financial Officer. Although we have employment agreements with Mr. Weinstein and Mr. Kaminer, this does not necessarily mean that they will remain with us. Although we have executive retention agreements with our officers, we do not have employment agreements with any other key personnel. Furthermore, our performance also depends on our ability to attract and retain management and qualified professional and technical operating staff. Competition for these skilled personnel is intense. The loss of services of any key executive, or inability to continue to attract and retain qualified staff, could have a material adverse effect on our business, results of operations and financial condition. We do not maintain any key employee insurance on any of our executives.

Our revenues, earnings and operating costs are exposed to exchange rate fluctuations.

During the first quarter of 2008, a portion of our service revenues were denominated in foreign currency. Our financial statements are denominated in United States dollars. In the event a greater portion of our service revenues are denominated in a foreign currency, changes in foreign currency exchange rates could affect our results of operations and financial condition. Fluctuations in foreign currency exchange rates could materially impact the operating costs of our European facility in Leiden, the Netherlands, which are primarily Euro denominated.

Our investments may be exposed to credit risk.

Financial instruments that potentially subject us to significant credit risk consist principally of cash, investments and derivatives. As part of our risk management processes, we continuously evaluate the relative credit standing of all of the financial institutions that service us and monitor actual exposures versus established limits. We have not sustained credit losses from instruments held at financial institutions. We maintain cash and cash equivalents, comprised of savings accounts, short-term certificate of deposits and money market funds with various financial institutions. These financial institutions are generally highly rated and the company has a policy to limit the dollar amount of credit exposure with any one institution.

Risks Related to Our Industry

Our failure to compete effectively in our industry could cause our revenues to decline.

Significant factors in determining whether we will be able to compete successfully include:
consultative and clinical trials design capabilities;

Table of Contents

reputation for on-time quality performance;

expertise and experience in specific therapeutic areas;

the scope of service offerings;

strength in various geographic markets;

the price of services;

ability to acquire, process, analyze and report data in a time-saving and accurate manner;

ability to manage large-scale clinical trials both domestically and internationally;

our size; and

the service and product offerings of our competitors.

If our services are not competitive based on these or other factors, our business, financial condition and results of operations will be materially harmed.

The biopharmaceutical services industry is highly competitive, and we face numerous competitors in our business, including hundreds of contract research organizations. If we fail to compete effectively, we will lose clients, which would cause our business to suffer. We primarily compete against in-house departments of pharmaceutical companies, full service contract research organizations, or CROs, small specialty CROs, and to a lesser extent, universities and teaching hospitals. Some of these competitors have substantially greater capital, technical and other resources than we do. In addition, certain of our competitors that are smaller specialized companies may compete effectively against us because of their concentrated size and focus.

Changes in outsourcing trends in the pharmaceutical and biotechnology industries could adversely affect our operating results and growth rate.

Service revenues depend greatly on the expenditures made by the pharmaceutical and biotechnology industries in research and development. Accordingly, economic factors and industry trends that affect our clients in these industries also affect our business. For example, the practice of many companies in these industries has been to hire outside organizations like us to conduct clinical research projects. This practice has grown significantly in the last decade, and we have benefited from this trend. However, if this trend were to change and companies in these industries were to reduce the number of research and development projects they outsource, our business could be materially adversely affected.

Additionally, numerous governments have undertaken efforts to control growing healthcare costs through legislation, regulation and voluntary agreements with medical care providers and pharmaceutical companies. If future regulatory cost containment efforts limit the profits that can be derived on new drugs, our clients might reduce their research and development spending, which could reduce our business.

Failure to comply with existing regulations could result in increased costs to complete clinical trials.

Our business is subject to numerous governmental regulations, primarily relating to pharmaceutical product development and the conduct of clinical trials. In particular, we are subject to 21 CFR Part 11 of the Code of Federal Regulations that provides the criteria for acceptance by the FDA of electronic records. If we fail to comply with these governmental regulations, it could result in the termination of ongoing clinical research or the disqualification of data for submission to regulatory authorities. We also could be barred from providing clinical trial services in the future or be subjected to fines. Any of these consequences would harm our reputation, our prospects for future work and our operating results.

Our CapMed division may not reach profitability.

Our CapMed division had a loss from operations for the three months ended March 31, 2008 of \$544,000. If our CapMed division continues to incur such losses, our business, results of operations and financial condition will be materially adversely affected.

Changes in governmental regulation could decrease the need for the services we provide, which would negatively affect our future business opportunities.

Table of Contents

In recent years, the United States Congress and state legislatures have considered various types of healthcare reform in order to control growing healthcare costs. The United States Congress and state legislatures may again address healthcare reform in the future. We are unable to predict what legislative proposals will be adopted in the future, if any. Similar reform movements have occurred in Europe and Asia.

Implementation of healthcare reform legislation that results in additional costs could limit the profits that can be made by clients from the development of new products. This could adversely affect our clients' research and development expenditures, which could, in turn, decrease the business opportunities available to us both in the United States and abroad. In addition, new laws or regulations may create a risk of liability, increase costs or limit service offerings. We cannot predict the likelihood of any of these events.

In addition to healthcare reform proposals, the expansion of managed care organizations in the healthcare market may result in reduced spending on research and development. Managed care organizations' efforts to cut costs by limiting expenditures on pharmaceuticals and medical devices could result in pharmaceutical, biotechnology and medical device companies spending less on research and development. If this were to occur, we would have fewer business opportunities and our revenues could decrease, possibly materially.

Governmental agencies throughout the world, but particularly in the United States, strictly regulate the drug development/approval process. Our business involves helping pharmaceutical and biotechnology companies navigate the regulatory drug approval process. Changes in regulation, such as relaxation in regulatory requirements or the introduction of simplified drug approval procedures or an increase in regulatory requirements that we may have difficulty satisfying could eliminate or substantially reduce the need for our services. If these changes in regulations were to occur, our business, results of operations and financial condition could be materially adversely affected. These and other changes in regulation could have a material adverse impact on our available business opportunities.

If governmental agencies do not accept the data and analyses generated by our services, the need for our services would be eliminated or substantially reduced.

The success of our business is dependent upon continued acceptance by the FDA and other regulatory authorities of the data and analyses generated by our services in connection with the evaluation of the safety and efficacy of new drugs and devices. The FDA has formal guidelines that encourage the use of surrogate measures through submission of digital image data, for evaluation of drugs to treat life-threatening or debilitating conditions. We cannot assure you that the FDA or other regulatory authorities will accept the data or analyses generated by us in the future and, even assuming acceptance, the FDA or other regulatory authorities may not require the application of imaging techniques to numbers of patients and over time periods substantially similar to those required of traditional safety and efficacy techniques. If the governmental agencies do not accept data and analyses generated by our services in connection with the evaluation of new drugs and devices, the need for our services would be eliminated or substantially reduced, and, as a result, our business, results of operations and financial condition could be materially adversely affected.

We may be exposed to liability claims as a result of our involvement in clinical trials.

We may be exposed to liability claims as a result of our involvement in clinical trials. We cannot assure you that liability claims will not be asserted against us as a result of work performed for our clients. We maintain liability insurance coverage in amounts that we believe are sufficient for the pharmaceutical services industry. Furthermore, we cannot assure you that our clients will agree to indemnify us, or that we will have sufficient insurance to satisfy any such liability claims. If a claim is brought against us and the outcome is unfavorable to us, such outcome could have a material adverse impact on us.

Table of Contents**Risks Related to Our Common Stock**

Your percentage ownership and voting power and the price of our common stock may decrease as a result of events that increase the number of our outstanding shares.

As of March 31, 2008, we had the following capital structure:

| | |
|--|------------|
| Common stock outstanding | 14,238,300 |
| Common stock issuable upon: | |
| Exercise of options which are outstanding | 1,621,229 |
| Exercise of options which have not been granted | 280,378 |
| Total common stock outstanding assuming exercise or conversion of all of the above | 16,139,907 |

As of March 31, 2008, we had outstanding options to purchase 1,621,229 shares of common stock at exercise prices ranging from \$0.63 to \$8.06 per share (exercisable at a weighted average of \$3.24 per share), of which 1,224,889 options were then exercisable. Exercise of our outstanding options into shares of our common stock may significantly and negatively affect the market price for our common stock as well as decrease your percentage ownership and voting power. In addition, we may conduct future offerings of our common stock or other securities with rights to convert the securities into shares of our common stock. As a result of these and other events, such as future acquisitions, that increase the number of our outstanding shares, your percentage ownership and voting power and the price of our common stock may decrease.

Shares of our common stock eligible for public sale may have a negative impact on its market price.

Future sales of shares of our common stock by existing holders of our common stock or by holders of outstanding options, upon the exercise thereof, could have a negative impact on the market price of our common stock. As of March 31, 2008, we had 14,238,300 shares of our common stock issued and outstanding, all of which are currently freely tradable. In addition, the sale of a significant number of shares of our common stock in the public market following the effectiveness of the registration statement we recently filed to register shares issued in connection with our acquisition of PDS could harm the market price of our common stock. As additional shares of common stock become available for resale in the public market pursuant to the registration statement and releases of lock-up agreements, the market supply of shares of common stock will increase, which could also decrease its market price.

We are unable to estimate the number of shares that may be sold because this will depend on the market price for our common stock, the personal circumstances of the sellers and other factors. Any sale of substantial amounts of our common stock or other securities in the open market may adversely affect the market price of the securities offered hereby and may adversely affect our ability to obtain future financing in the capital markets as well as create a potential market overhang.

There are a limited number of stockholders who have significant control over our common stock, allowing them to have significant influence over the outcome of all matters submitted to our stockholders for approval, which influence may conflict with our interests and the interests of our other stockholders.

Our directors, officers and principal stockholders (stockholders owning 10% or more of our common stock), including Covance Inc., beneficially owned 20% of the outstanding shares of common stock and stock options that could have been converted to common stock at March 31, 2008, and such stockholders will have significant influence over the outcome of all matters submitted to our stockholders for approval, including the election of our directors and other corporate actions. In addition, such influence by these affiliates could have the effect of discouraging others from attempting to take us over, thereby increasing the likelihood that the market price of the common stock will not reflect a premium for control.

Table of Contents

Because we do not intend to pay dividends, stockholders will benefit from an investment in our common stock only if it appreciates in value.

We have never declared or paid any cash dividends on our common stock. We currently intend to retain our future earnings, if any, to finance further research and development and do not expect to pay any cash dividends in the foreseeable future. As a result, the success of an investment in our common stock will depend upon any future appreciation in its value. There is no guarantee that our common stock will appreciate in value or even maintain the price at which stockholders have purchased their shares.

Trading in our common stock may be volatile, which may result in substantial declines in its market price.

The market price of our common stock has experienced historical volatility and might continue to experience volatility in the future in response to quarter-to-quarter variations in:

operating results;

analysts' reports;

market conditions in the industry;

changes in governmental regulations; and

changes in general conditions in the economy or the financial markets.

The overall market (including the market for our common stock) has also experienced significant decreases in value in the past. This volatility and potential market decline could affect the market prices of securities issued by many companies, often for reasons unrelated to their operating performance, and may adversely affect the price of our common stock. Between January 1, 2008 and March 31, 2008, our common stock has traded at a low of \$6.57 per share and a high of \$8.98 per share.

Our common stock began trading on the NASDAQ Global Market, formerly called the NASDAQ National Market, on December 18, 2003 and has a limited trading market. We cannot assure that an active trading market will develop or, if developed, will be maintained. As a result, our stockholders may find it difficult to dispose of shares of our common stock and, as a result, may suffer a loss of all or a substantial portion of their investment.

Certain provisions of our charter and Delaware law could make a takeover difficult and may prevent or frustrate attempts by our stockholders to replace or remove our management team.

We have an authorized class of 3,000,000 shares of undesignated preferred stock, of which 1,250,000 shares were previously issued and converted to common stock. The remaining 1,750,000 shares may be issued by our board of directors, on such terms and with such rights, preferences and designation as the Board may determine. Issuance of such preferred stock, depending upon the rights, preferences and designations thereof, may have the effect of delaying, deterring or preventing a change in control of our company. In addition, we are subject to provisions of Delaware corporate law which, subject to certain exceptions, will prohibit us from engaging in any business combination with a person who, together with affiliates and associates, owns 15% or more of our common stock for a period of three years following the date that the person came to own 15% or more of our common stock unless the business combination is approved in a prescribed manner.

These provisions of our certificate of incorporation, and of Delaware law may have the effect of delaying, deterring or preventing a change in control of our company, may discourage bids for our common stock at a premium over market price and may adversely affect the market price, and the voting and other rights of the holders, of our common stock. In addition, these provisions make it more difficult to replace or remove our current management team in the event our stockholders believe this would be in the best interest of our company and our stockholders.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus includes and incorporates forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 based upon the beliefs of our management, as well as assumptions made by, and

Table of Contents

the information currently available to, our management. All statements, other than statements of historical facts, included or incorporated in this prospectus regarding our strategy, future operations, financial position, future revenues, projected costs, prospects, plans and objectives of management are forward-looking statements. The words anticipates, believes, estimates, expects, intends, may, plans, projects, will, would and similar expressions are used to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We cannot assure you that we actually will achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included or incorporated in this prospectus, particularly under the heading Risk Factors, that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this prospectus. Except for special circumstances in which a duty to update arises when prior disclosure becomes materially misleading in light of subsequent circumstances, we do not intend to update any of these forward-looking statements to reflect events or circumstances after the date of this prospectus or to reflect the occurrence of unanticipated events.

USE OF PROCEEDS

We will not receive any proceeds from the sale of common stock by the selling stockholders.

The selling stockholders will pay any underwriting discounts and commissions and expenses incurred by the selling stockholders in disposing of the shares. We will bear all other costs, fees and expenses incurred in effecting the issuance and registration of the shares covered by this prospectus, including, without limitation, all registration and filing fees, NASDAQ Global Market listing fees and fees and expenses of our counsel and our accountants.

SELLING STOCKHOLDERS

The following table sets forth, to our knowledge, the common stock ownership of the selling stockholders, as of June 9, 2008 as adjusted to reflect the sale of the common stock in this offering. The shares of common stock being offered by the selling stockholders were issued upon consummation of the Acquisition with Phoenix. We are registering the shares of common stock in order to permit the selling stockholders to offer the shares for resale from time to time. Except as described in this prospectus, the selling stockholders have not held any position or office or had any other material relationship with us or any of our predecessors or affiliates within the past three years.

The 2,287,582 shares covered by this prospectus represent approximately 15.96% of our common stock, based on 14,332,021 shares of common stock outstanding as of June 9, 2008. The 2,287,582 shares were issued upon consummation of the Acquisition with Phoenix. We considered the following factors and made the following assumptions regarding the table:

beneficial ownership is determined under Section 13(d) of the Securities Exchange Act of 1934 and generally includes voting or investment power with respect to securities and including any securities that grant the selling stockholder the right to acquire common stock within 60 days of June 9, 2008;

unless otherwise indicated below, to our knowledge, the selling stockholders named below have sole voting and investment power with respect to their shares of common stock, except to the extent authority is shared by spouses under applicable law; and

the selling stockholders may sell all of the securities offered by this prospectus under certain circumstances.

Notwithstanding these assumptions, the selling stockholders may sell less than all of the shares listed on the table. In addition, the shares listed below may be sold pursuant to this prospectus or in privately negotiated transactions. Accordingly, we cannot estimate the number of shares of common stock that the selling stockholders will sell under this prospectus.

Table of Contents

Each of the selling stockholders listed below has sole voting and investment power with respect to the shares beneficially owned by the stockholder unless noted otherwise, subject to community property laws where applicable.

| Name of Selling Stockholders | Beneficial Ownership of | | Number of Shares Offered Hereby(2) | Beneficial Ownership of Shares After Offering(2)(3) | |
|--|---|---------|------------------------------------|---|---------|
| | Selling Stockholders Prior to Offering(1) | | | Number | Percent |
| | Number | Percent | Number | Number | Percent |
| Michael Crayne | 181,449 | 1.27% | 181,449 | | *% |
| Douglas A. Cory, Jr. | 201,610 | 1.41 | 201,610 | | * |
| Kim Jessen | 201,610 | 1.41 | 201,610 | | * |
| Charles Buscarino | 359,149 | 2.51 | 359,149 | | * |
| William Claypool | 359,149 | 2.51 | 359,149 | | * |
| Thomas Mahler | 224,468 | 1.57 | 224,468 | | * |
| Everett Keech | 17,957 | * | 17,957 | | * |
| James G. Fitzgerald | 74,823 | * | 74,823 | | * |
| James G. Fitzgerald TTE Andrew James Fitzgerald Irrevocable Trust dated 12/15/82 (4) | 37,411 | * | 37,411 | | * |
| James G. Fitzgerald TTE Timothy Edward Fitzgerald Irrevocable Trust dated 5/1/83 (5) | 37,411 | * | 37,411 | | * |
| Peter G. Fitzgerald | 74,823 | * | 74,823 | | * |
| Peter G. Fitzgerald TTE The Fitzgerald Childrens 1992 Trust UA dated 10/28/92 (6) | 37,411 | * | 37,411 | | * |
| Peter G. Fitzgerald TTE The Fitzgerald Descendants 1992 Trust UA dated 10/28/92 (7) | 37,411 | * | 37,411 | | * |
| Gerald F. Fitzgerald TTE Gerald F. Fitzgerald Trust (8) | 99,763 | * | 99,763 | | * |
| Manufacturers and Traders Trust Company, as Purchase Price Escrow Agent | 114,379 | * | 114,379 | | * |
| Manufacturers and Traders Trust Company, as Indemnity Escrow Agent | 228,758 | 1.60 | 228,758 | | * |

* Represents beneficial ownership of less than one percent of our outstanding common stock.

(1) Shares of common stock issuable under options or warrants that are exercisable within 60 days after June 9,

2008 and shares of common stock issuable under options or warrants held by the selling stockholder are deemed outstanding for computing the percentage ownership of the selling stockholder holding the options or warrants, prior to and after giving effect to the offering, but are not deemed outstanding for computing the percentage ownership of any other selling stockholder.

- (2) We do not know when or in what amounts a selling stockholder may offer shares for sale. The selling stockholders might not sell any or all of the shares offered by this prospectus. Because the selling stockholders may offer all or some of the shares pursuant to this offering and because there are currently no

agreements,
arrangements or
understandings
with respect to
the sale of any
of the shares,
we cannot
estimate the
number of the
shares that will
be held by the
selling
stockholders
after completion
of the offering.
However, for
purposes of this
table, we have
assumed that,
after completion
of the offering,
none of the
shares covered
by this
prospectus will
be held by the
selling
stockholders.

Table of Contents

(3) Shares of common stock issuable under options or warrants that are exercisable within 60 days after June 9, 2008 are deemed outstanding for computing the percentage ownership of the selling stockholder holding the options or warrants, prior to and after giving effect to the offering, but are not deemed outstanding for computing the percentage ownership of any other selling stockholder.

(4) James G. Fitzgerald is the trustee of the Andrew James Fitzgerald Irrevocable Trust (the AJF Trust) and has voting and investment control over the shares of common stock held by the AJF Trust, but he disclaims beneficial ownership of such shares,

except to the extent of any pecuniary interest therein.

- (5) James G. Fitzgerald is the trustee of the Timothy Edward Fitzgerald Irrevocable Trust (the TEF Trust) and has voting and investment control over the shares of common stock held by the TEF Trust, but he disclaims beneficial ownership of such shares, except to the extent of any pecuniary interest therein.
- (6) Peter G. Fitzgerald is the trustee of The Fitzgerald Childrens 1992 Trust UA (the Childrens Trust) and has voting and investment control over the shares of common stock held by the Childrens Trust, but he disclaims beneficial ownership of such shares, except to the extent of any pecuniary

interest therein.

- (7) Peter G. Fitzgerald is the trustee of The Fitzgerald Descendants 1992 Trust UA (the Decedents Trust) and has voting and investment control over the shares of common stock held by the Decedents Trust, but he disclaims beneficial ownership of such shares, except to the extent of any pecuniary interest therein.
- (8) Gerald F. Fitzgerald is the trustee of the Gerald F. Fitzgerald Trust (the GFF Trust) and has voting and investment control over the shares of common stock held by the GFF Trust. Gerald F. Fitzgerald claims beneficial ownership of such shares held by the GFF Trust.

PLAN OF DISTRIBUTION

Each selling stockholder of the common stock and any of their pledgees, assignees and successors-in-interest may, from time to time, sell any or all of their shares of common stock on the NASDAQ Global Market or any other stock exchange, market or trading facility on which the shares are traded or in private transactions. These sales may be at

fixed or negotiated prices. A selling stockholder may use any one or more of the following methods when selling shares:

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;

broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;

through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;

a combination of any such methods of sale; or

any other method permitted pursuant to applicable law.

The selling stockholders may also sell shares under Rule 144 under the Securities Act of 1933, as amended (the Securities Act), if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as agent for the purchaser of shares, from the purchaser) in amounts to be negotiated, but, except as set forth in a supplement to this prospectus, in the case of an agency transaction not in excess of a customary brokerage

Table of Contents

commission in compliance with NASD Rule 2440; and in the case of a principal transaction a markup or markdown in compliance with NASD IM-2440.

In connection with the sale of the 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 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 selling stockholders and any broker-dealers or agents that are involved in selling the shares may be deemed to be underwriters within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act. Each selling stockholder has informed us that it does not have any written or oral agreement or understanding, directly or indirectly, with any person to distribute the common stock. In no event shall any broker-dealer receive fees, commissions and markups which, in the aggregate, would exceed the maximum allowed by NASD Rule 2710 and any other applicable FINRA Rules.

We are required to pay certain fees and expenses incident to the registration of the shares. We have agreed to indemnify the selling stockholders against certain losses, claims, damages and liabilities, including liabilities under the Securities Act.

Because selling stockholders may be deemed to be underwriters within the meaning of the Securities Act, they will be subject to the prospectus delivery requirements of the Securities Act including Rule 172 thereunder. In addition, any securities covered by this prospectus which qualify for sale pursuant to Rule 144 under the Securities Act may be sold under Rule 144 rather than under this prospectus. There is no underwriter or coordinating broker acting in connection with the proposed sale of the resale shares by the selling stockholders.

We agreed to keep this prospectus effective until the later of (i) when the shares of Common Stock issued in connection with the Acquisition are sold or may be sold pursuant to Rule 144 promulgated under the Securities Act of 1933, as amended, and (ii) the expiration of the lockup agreements entered into pursuant to the Merger Agreement. The resale shares will be sold only through registered or licensed brokers or dealers if required under applicable state securities laws. In addition, in certain states, the resale shares may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

Under applicable rules and regulations under the Exchange Act, any person engaged in the distribution of the resale shares may not simultaneously engage in market making activities with respect to the common stock for the applicable restricted period, as defined in Regulation M, prior to the commencement of the distribution. In addition, the selling stockholders will be subject to applicable provisions of the Exchange Act and the rules and regulations thereunder, including Regulation M, which may limit the timing of purchases and sales of shares of the common stock by the selling stockholders or any other person. We will make copies of this prospectus available to the selling stockholders and have informed them of the need to deliver a copy of this prospectus to each purchaser at or prior to the time of the sale (including by compliance with Rule 172 under the Securities Act).

LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus has been passed upon for us by Morgan, Lewis & Bockius LLP, Princeton, New Jersey.

Table of Contents

EXPERTS

The financial statements incorporated in this Prospectus by reference to the Bio-Imaging Technologies, Inc. Annual Report on Form 10-K for the year ended December 31, 2007 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

The financial statements of Phoenix Data Systems, Inc. for the years ended December 31, 2007, 2006 and 2005 incorporated by reference in this Prospectus by reference to the report on Form 8-K/A dated March 24, 2008, filed on June 4, 2008 have been so incorporated in reliance on the report of Grant Thornton LLP, independent certified public accountants, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We file reports, proxy statements and other documents with the SEC. You may read and copy any document we file at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. You should call 1-800-SEC-0330 for more information on the public reference room. Our SEC filings are also available to you on the SEC's Internet site at <http://www.sec.gov>.

This prospectus is part of a registration statement that we filed with the SEC. The registration statement contains more information than this prospectus regarding us and our common stock, including certain exhibits and schedules. You can obtain a copy of the registration statement from the SEC at the address listed above or from the SEC's Internet site.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference much of the information we file with them (Commission File No. 001-11182), which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference is considered to be part of this prospectus, and any of our subsequent filings with the SEC will automatically update and supersede this information. This prospectus incorporates by reference the documents listed below and any future filings made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, until the filing of a post-effective amendment to this prospectus which indicates that all securities registered have been sold or which deregisters all securities then remaining unsold:

our annual report on Form 10-K for the fiscal year ended December 31, 2007, filed on March 5, 2008;

our quarterly report on Form 10-Q for the quarter ended March 31, 2008, filed on May 13, 2008;

our current report on Form 8-K, dated March 24, 2008, filed on March 25, 2008;

our current report on Form 8-K/A, dated March 24, 2008, filed on March 28, 2008;

our current report on Form 8-K, dated April 4, 2008, filed on April 9, 2008;

our current report on Form 8-K/A, dated March 24, 2008, filed on June 4, 2008; and

all of our filings pursuant to the Securities Exchange Act of 1934, as amended, after the date of filing the initial registration statement and prior to effectiveness of the registration statement.

You may request a copy of any or all of these filings, at no cost, by writing or telephoning us at: Bio-Imaging Technologies, Inc., 826 Newtown-Yardley Road, Newtown, Pennsylvania 18940-1721, (267) 757-3000, attention: Investor Relations.

You should rely only on the information incorporated by reference or provided in this prospectus or any supplement. We have not authorized anyone else to provide you with different information. The selling stockholders will not make an offer of these shares in any state where the offer is not permitted.

You should not assume that information in this prospectus or any supplement is accurate as of any date other than the date on the front of these documents.

Table of Contents

INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 145 of the Delaware General Corporation Law empowers a Delaware corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation) by reason of the fact that such person is or was a director, officer, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. A corporation may, in advance of the final disposition of any civil, criminal, administrative or investigative action, suit or proceeding, pay the expenses (including attorneys' fees) incurred by any officer, director, employee or agent in defending such action, provided that the director or officer undertakes to repay such amount if it shall ultimately be determined that he is not entitled to be indemnified by the corporation. A corporation may indemnify such person against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful.

A Delaware corporation may indemnify officers and directors in an action by or in the right of the corporation to procure a judgment in its favor under the same conditions, except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him against the expenses (including attorneys' fees) which he actually and reasonably incurred in connection therewith. The indemnification provided is not deemed to be exclusive of any other rights to which an officer or director may be entitled under any corporation's by-law, agreement, vote or otherwise.

Our certificate of incorporation includes a provision that eliminates the personal liability of our directors to us or our stockholders for monetary damages for breach of their fiduciary duty to the maximum extent permitted by the DGCL. The DGCL does not permit liability to be eliminated (i) for any breach of a director's duty of loyalty to us or our stockholders, (ii) for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, (iii) for unlawful payments of dividends or unlawful stock repurchases or redemptions, as provided in Section 174 of the DGCL, or (iv) for any transaction from which the director derived an improper personal benefit. In addition, as permitted in Section 145 of the DGCL, our certificate of incorporation and by-laws provide that we shall indemnify our directors and officers to the fullest extent permitted by the DGCL, including those circumstances in which indemnification would otherwise be discretionary, subject to certain exceptions. Our by-laws also provide that we shall advance expenses to directors and officers incurred in connection with an action or proceeding as to which they may be entitled to indemnification, subject to certain exceptions.

Each of our indemnification agreements with each of our executive officers and directors provides for indemnification to the maximum extent permitted by applicable law. We also indemnify each of our directors and executive officers with the maximum indemnification allowed to directors and executive officers by the DGCL, subject to certain exceptions, as well as certain additional procedural protections. In addition, we will generally advance expenses incurred by directors and executive officers in any action or proceeding as to which they may be entitled to indemnification, subject to certain exceptions.

The indemnification provisions in our certificate of incorporation and by-laws also permit indemnification for liabilities arising under the Securities Act of 1933. Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable.

We currently carry director and officer liability insurance in the amount of \$5,000,000.

Table of Contents

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The expenses payable by the registrant in connection with the issuance and distribution of the securities being registered hereby are as follows:

| | Amount |
|-------------------------------|---------------|
| SEC Registration Fee | \$ 611 |
| NASDAQ Additional Listing Fee | \$22,876 |
| Legal Expenses | \$30,000* |
| Accounting Expenses | \$10,000* |
| Printing Expenses | \$ 2,000* |
| Miscellaneous Expenses | \$ 513* |
| Total | \$66,000* |

* Estimated

Item 15. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law empowers a Delaware corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation) by reason of the fact that such person is or was a director, officer, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. A corporation may, in advance of the final disposition of any civil, criminal, administrative or investigative action, suit or proceeding, pay the expenses (including attorneys' fees) incurred by any officer, director, employee or agent in defending such action, provided that the director or officer undertakes to repay such amount if it shall ultimately be determined that he is not entitled to be indemnified by the corporation. A corporation may indemnify such person against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful.

A Delaware corporation may indemnify officers and directors in an action by or in the right of the corporation to procure a judgment in its favor under the same conditions, except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him against the expenses (including attorneys' fees) which he actually and reasonably incurred in connection therewith. The indemnification provided is not deemed to be exclusive of any other rights to which an officer or director may be entitled under any corporation's by-law, agreement, vote or otherwise.

Our certificate of incorporation includes a provision that eliminates the personal liability of our directors to us or our stockholders for monetary damages for breach of their fiduciary duty to the maximum extent permitted by the DGCL. The DGCL does not permit liability to be eliminated (i) for any breach of a director's duty of loyalty to us or our stockholders, (ii) for acts or omissions not in good faith or that involve intentional misconduct or a

Table of Contents

knowing violation of law, (iii) for unlawful payments of dividends or unlawful stock repurchases or redemptions, as provided in Section 174 of the DGCL, or (iv) for any transaction from which the director derived an improper personal benefit. In addition, as permitted in Section 145 of the DGCL, our certificate of incorporation and by-laws provide that we shall indemnify our directors and officers to the fullest extent permitted by the DGCL, including those circumstances in which indemnification would otherwise be discretionary, subject to certain exceptions. Our by-laws also provide that we shall advance expenses to directors and officers incurred in connection with an action or proceeding as to which they may be entitled to indemnification, subject to certain exceptions.

Each of our indemnification agreements with each of our executive officers and directors provides for indemnification to the maximum extent permitted by applicable law. We also indemnify each of our directors and executive officers with the maximum indemnification allowed to directors and executive officers by the DGCL, subject to certain exceptions, as well as certain additional procedural protections. In addition, we will generally advance expenses incurred by directors and executive officers in any action or proceeding as to which they may be entitled to indemnification, subject to certain exceptions.

The indemnification provisions in our certificate of incorporation and by-laws also permit indemnification for liabilities arising under the Securities Act of 1933. Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act of 1933 and is, therefore, unenforceable.

We currently carry director and officer liability insurance in the amount of \$5,000,000.

Item 16. Exhibits.

- 2.1 Agreement and Plan of Merger by and among Bio-Imaging Technologies, Inc., Bio-Imaging Acquisition Corporation, and Phoenix Data Systems, Inc. and its Stockholders Representative, dated as of March 24, 2008. Incorporated by reference to Exhibit 10.1 of our Current Report on Form 8-K/A filed on March 28, 2008.
- 5.1* Opinion of Morgan, Lewis & Bockius LLP.
- 23.1* Consent of PricewaterhouseCoopers LLP.
- 23.2* Consent of Grant Thornton LLP.
- 23.3* Consent of Morgan, Lewis & Bockius LLP (included in Exhibit 5.1).
- 24.1** Power of Attorney.

* Filed herewith.

** Previously filed.

Table of Contents

Item 17. Undertakings

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which it offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of this registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this registration statement. Notwithstanding the foregoing, any increase or decrease in the volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission, pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the Calculation of Registration Fee table in the effective registration statement.

(iii) To include any material information with respect to the plan of distribution not previously disclosed in this registration statement or any material change to such information in this registration statement; provided, however, that

(A) Paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act of 1934, as amended, that are incorporated by reference in this registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is a part of this registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) If the registrant is relying on Rule 430B:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of this registration statement as of the date the filed prospectus was deemed part of and included in this registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5) or (b)(7) as part of this registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in this registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of this registration statement relating to the securities in this registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in this registration statement or prospectus that is part of this registration statement or made in a document incorporated or deemed incorporated by reference into this registration statement or prospectus that is part of this registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in this registration statement or prospectus that was part of this registration statement or made in any such document immediately prior to such effective date; or

(ii) If the registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on rule 430B or other

Table of Contents

than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in this registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in this registration statement or prospectus that is part of this registration statement or made in a document incorporated or deemed incorporated by reference into this registration statement or prospectus that is part of this registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in this registration statement or prospectus that was part of this registration statement or made in any such document immediately prior to such date of first use.

(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

Table of Contents

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Newtown, State of Pennsylvania, on June 13, 2008.

BIO-IMAGING TECHNOLOGIES, INC.

(Registrant)

By: /s/ Mark L. Weinstein
Mark L. Weinstein
President and Chief Executive Officer

21

Table of Contents

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the dates indicated.

| Signature | Title | Date |
|--|--|---------------|
| /s/ Mark L. Weinstein Mark L. Weinstein | President and Chief Executive Officer (Principal Executive Officer) | June 13, 2008 |
| /s/ Ted I. Kaminer Ted. I Kaminer | Sr. V.P. and Chief Financial Officer (Principal Financial and Accounting Officer) | June 13, 2008 |
| /s/ * Jeffrey H. Berg | Director | June 13, 2008 |
| /s/ * Richard F. Cimino | Director | June 13, 2008 |
| /s/ * E. Martin Davidoff, Esq., CPA | Director | June 13, 2008 |
| /s/ * David E. Nowicki, D.M.D. | Chairman of the Board of Directors | June 13, 2008 |
| /s/ * David Stack | Director | June 13, 2008 |
| /s/ * James A. Taylor, Ph.D. | Director | June 13, 2008 |

* By the signature set forth below, the undersigned, pursuant to the duly authorized power of attorney filed with the Securities and Exchange Commission has signed this

Amendment
No. 1 on Form
S-3/A on behalf
of the person
indicated.

/s/ Mark L. Weinstein
Mark L. Weinstein
(Attorney-in-Fact)

Table of Contents

Item 16. Exhibits.

- 2.1 Agreement and Plan of Merger by and among Bio-Imaging Technologies, Inc., Bio-Imaging Acquisition Corporation, and Phoenix Data Systems, Inc. and its Stockholders Representative, dated as of March 24, 2008. Incorporated by reference to Exhibit 10.1 of our Current Report on Form 8-K/A filed on March 28, 2008.
- 5.1* Opinion of Morgan, Lewis & Bockius LLP.
- 23.1* Consent of PricewaterhouseCoopers LLP.
- 23.2* Consent of Grant Thornton LLP.
- 23.3* Consent of Morgan, Lewis & Bockius LLP (included in Exhibit 5.1).
- 24.1** Power of Attorney.

* Filed herewith.

** Previously filed.