PROSPECTUS

Filed Pursuant to Rule 424(b)(3)
Registration No. 333-146463

12,773,296 Shares of Common Stock
1,231,273 Shares of Common Stock Underlying 8% Fixed-Price Convertible Notes
366,900 Shares of Common Stock Underlying Fixed-Price Warrants
100,778 Shares of Common Stock Underlying Fixed-Price Warrants
14,537 Shares of Common Stock Underlying Fixed-Price Warrants

This prospectus relates to the resale from time to time by the selling stockholders of PharmAthene, Inc. (described in the section entitled "Selling Stockholders" on page 13 of this prospectus) of up to 14,486,784 shares of our common stock, par value $0.0001 per share ("Common Stock"), including (i) 12,223,296 shares of Common Stock issued to stockholders pursuant to the Agreement and Plan of Merger, dated as of January 19, 2007 (the "Merger Agreement"), by and among Healthcare Acquisition Corp. (n/k/a PharmAthene, Inc.) ("HAQ"), PAI Acquisition Corp., a wholly-owned subsidiary of HAQ ("Merger Sub"), and PharmAthene, Inc. (n/k/a PharmAthene U.S. Corporation)("Former PharmAthene"), whereby Merger Sub merged with and into Former PharmAthene, resulting in Former PharmAthene becoming a wholly-owned subsidiary of HAQ (the "Merger"), (ii) 550,000 shares of Common Stock acquired by David P. Wright and the funds affiliated with MPM Capital L.P. and Healthcare Ventures VII, L.P. on August 2, 2007 and August 3, 2007, (iii) 1,231,273 shares of Common Stock underlying 8% convertible notes with a fixed conversion price of $10.00 per share also issued under the Merger Agreement, (iv) 366,900 shares of Common Stock underlying warrants with a fixed exercise price of $6.00 per share issued prior to the Merger and held by John Pappajohn, Derace L. Schaffer, M.D., Matthew P. Kinley and Edward Berger, our officers and/or directors prior to the Merger, (v) 100,778 shares of Common Stock underlying warrants with a fixed exercise price of $4.06 per share issued pursuant to the Credit Facility (as defined herein) and assumed by us under the Merger Agreement, and (vi) 14,537 shares of Common Stock underlying warrants with a fixed exercise price of $0.20 per share issued to our former landlord, Chesapeake Innovation Center LLC, and assumed by us under the Merger Agreement.

The selling stockholders may offer and sell, from time to time, in the open market or in privately negotiated transactions and at market prices, fixed prices or negotiated prices, all or any portion of such shares in amounts and on terms to be determined at the time of sale. For additional information on the possible methods of sale that may be used by the selling stockholders you should refer to the section entitled "Plan of Distribution" on page 17 of this prospectus. We will not receive any of the proceeds from the resale of shares of our Common Stock by the selling stockholders.

Our Common Stock is listed on the American Stock Exchange ("AMEX") under the symbol "PIP." On January 23, 2008, the last reported sale price per share of our Common Stock on the AMEX was $3.14. Some of our warrants are listed on the AMEX under the symbol "PIP.WS." On January 23, 2008, the last reported sale price of these warrants on the AMEX was $0.36.

Investing in our Common Stock involves certain risks. You should read the entire prospectus and any accompanying prospectus supplement carefully before you make your investment decision. See "Risk Factors" beginning on page 3.

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 January 29, 2008.

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ABOUT THIS PROSPECTUS

You should rely only on the information contained or incorporated by reference in this prospectus and any applicable prospectus supplements. Neither the Company nor the selling stockholders have authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. The selling stockholders will not make an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. The information in this prospectus may only be accurate on the date of this document. You should assume that the information appearing in this prospectus is accurate only as of the date on the cover page. Our business, financial condition, results of operations and prospects may have subsequently changed.

In this prospectus, references to "PharmAthene," "Company," "we," "us," or "our" refer to PharmAthene, Inc. and its consolidated subsidiaries, unless the context otherwise requires. The phrase "this prospectus" refers to this prospectus and any applicable prospectus supplement, unless the context otherwise requires. Whenever we refer to "you" or "yours", we mean the persons to whom offers are made hereunder.

OUR COMPANY

Overview

Healthcare Acquisition Corp. ("HAQ") was incorporated under the laws of the State of Delaware on April 25, 2005 and became a public company on August 3, 2005. On August 3, 2007, HAQ consummated a merger (the "Merger") with PharmAthene, Inc., a Delaware corporation ("Former PharmAthene"), pursuant to an Agreement and Plan of Merger, dated as of January 19, 2007, by and among HAQ, PAI Acquisition Corp., a Delaware corporation and a wholly-owned subsidiary of HAQ, and Former PharmAthene, whereby Former PharmAthene became a wholly-owned subsidiary of HAQ. Effective upon the consummation of the Merger, HAQ changed its name from "Healthcare Acquisition Corp." to "PharmAthene, Inc." and Former PharmAthene changed its name to "PharmAthene U.S. Corporation." See the section entitled "Recent Events" below for more information regarding the Merger.

We are a biodefense company engaged in the business of discovery and development of novel human therapeutics and prophylactics for the treatment and prevention of morbidity and mortality from exposure to biological and chemical weapons. Additionally, we collaborate with other pharmaceutical companies to support clinical development of product candidates. We have two products currently under development: Valortim™, a fully human monoclonal antibody (an identical population of highly specific antibodies produced from a single clone) for the prevention and treatment of anthrax infection and Protexia®, which mimics a natural bioscavenger for the treatment or prevention of nerve agent poisoning by organophosphate compounds which include nerve gases and pesticides.

Our lead product candidate, Valortim™, is a fully human monoclonal antibody designed to protect against and treat inhalation anthrax infection, the most lethal form of illness in humans caused by the *Bacillus anthracis* bacterium. We are co-developing Valortim™ with Medarex, Inc., a biopharmaceutical company that specializes in developing fully human antibody-based therapeutic products and will share with Medarex any profits derived from sales of Valortim™. Preclinical trials on animal models have demonstrated Valortim™ to be highly efficacious as both a prophylaxis and a therapeutic for inhalation anthrax infection. Working with Medarex, we have completed dosing of healthy volunteers in a Phase I open-label, dose-escalation clinical trial to evaluate the safety, tolerability, immunogenicity (the ability of an antigen to elicit an immune response), and pharmacokinetics (the study of absorption, metabolism and action of drugs) of a single dose of Valortim™ administered intravenously or intramuscularly. No drug-related serious adverse events have been reported. Final results from the Phase I trial were presented at the Infectious Disease Society of America meeting in October 2006. Valortim™ has been granted Fast Track Status by the U.S. Food and Drug Administration (the "FDA"), which may permit us to submit portions of a Biologics License Application ("BLA") or efficacy supplement before the complete BLA is submitted. This may expedite the review process but requires that the FDA have sufficient resources to allow early review of the portions submitted. In addition, Valortim™ has been granted orphan drug status for the treatment of inhalational anthrax.

Protexia®, our second product candidate, is a recombinant form (that is, produced using genetic engineering technology) of human butyrylcholinesterase, a naturally occurring enzyme ("BChE"), for use in the prophylaxis and treatment of organophosphate chemical nerve agent poisoning. Preclinical trials on animal models have demonstrated that Protexia® is highly efficacious both prophylactically and therapeutically for chemical nerve agent poisoning. We plan to continue preclinical animal studies of Protexia® throughout 2006 and 2007 and file an Investigational New Drug application ("IND") with the FDA in 2008. The procurement process for the scale-up development and sale of Protexia® is already underway with the U.S. Department of Defense (the "DoD"), the department tasked with purchasing biodefense countermeasures for military use. The DoD requested competitive bids in a Request for Proposal (an "RFP") for a recombinant form of BChE drug for the prophylaxis treatment of chemical nerve agent poisoning, which we

submitted in November 2005. In September 2006, we were awarded a contract by the DoD for the advanced development of Protexia® for approximately $35 million. If all options and extensions of this contract are exercised, including procurement of an initial 90,000 doses, the contract could amount to up to $213 million in revenues.

In compiling our business plan and cost and revenue projections for the future, we have considered various factors relating to potential sales of Valortim™ and Protexia®. In order to market our products commercially, we must receive final approval from the FDA. We currently estimate that we will not have an FDA approved product until at least 2012. Nevertheless, we believe that we may commence sales of Valortim™ in 2008 and 2009. The United States Strategic National Stockpile ("SNS") is able to purchase products from companies prior to the receipt of FDA approval for Emergency Use Authorization ("EUA"). We are aware that, under certain conditions, the SNS currently buys a significant amount of product from companies that do not have an FDA-approved product. We analyzed the United States Government's demand for its products based upon published reports. We also analyzed available information regarding its competitors' projects and determined the level of orders that could be received from the United States Government. We estimated

what portion of such orders we could receive and of such orders what portion we could deliver in each of 2008 and 2009 and the price per treatment delivered. We also considered delivery of a limited number of orders internationally. Much like the Valortim™ analysis, we performed a similar evaluation and analysis of the market for Protexia®. To this end, we projected the delivery, beginning in 2009, of Protexia® domestically to SNS and internationally. Accordingly, we believe that we can meet projections for sales in 2009 of Valortim™ and Protexia®.

Prior to the Merger, Former PharmAthene financed its operations since inception in March 2001 primarily through the issuance of equity securities, convertible notes, and proceeds from loans or other borrowings. In addition to the trust funds obtained in the Merger, any or all of these financing vehicles or others may be utilized to fund our future capital requirements.

Recent Events

On August 3, 2007, we consummated the Merger pursuant to the Merger Agreement whereby our wholly-owned subsidiary, PAI Acquisition Corp., was merged with and into Former PharmAthene. Immediately following the Merger, we changed our name from "Healthcare Acquisition Corp." to "PharmAthene, Inc." and Former PharmAthene, which became a wholly-owned subsidiary of us, changed its name to "PharmAthene U.S. Corporation."

As consideration for the Merger, we paid stockholders, optionholders, warrantholders and noteholders of Former PharmAthene (the "PharmAthene Security Holders") the following consideration:

(i) an aggregate of 12,223,296 shares of our Common Stock at closing (the "Stock Consideration") including 300,688 shares in adjustment (the "Adjustment") calculated on the basis of the number of shares electing conversion in excess of 5% of our outstanding Common Stock prior to the Merger; and

(ii) $12,500,000 in 8% convertible notes (the "Convertible Notes") issued by the Company (the "Note Consideration");

In addition, the PharmAthene Security Holders may receive up to $10 million in milestone payments contingent upon the Company entering into a contract prior to December 31, 2007 for the sale of Valortim™ to the U.S. government for more than $150 million in anticipated revenue; the payments would be equal to 10% of the actual collections from the sale of Valortim™ up to $10 million.

Recipients of the Stock Consideration were granted registration rights pursuant to a Registration Rights Agreement, dated August 3, 2007, by and among us and the PharmAthene Security Holders (the "Registration Rights Agreement") pursuant to which the Registration Statement to which this prospectus relates has been filed. Additionally, each of the stockholders, noteholders and holders of options or warrants to purchase not less than 100,000 shares of the common stock of Former PharmAthene have executed a lock-up agreement (the "Lock-up Agreement") that such person shall not sell, pledge, transfer, assign or engage in any hedging transaction with respect to our Common Stock issued to such stockholders as part of the Merger Consideration except in accordance with the following schedule: 50% of the Stock Consideration shall be released from the lock-up commencing six months following the effective time of the Merger and all remaining Stock Consideration shall be released from the lock-up twelve months following the effective time. The Note Consideration was allocated among the PharmAthene noteholders pursuant to a Note Exchange Agreement, dated August 3, 2007, by and among us, Former PharmAthene and the PharmAthene noteholders (the "Note Exchange Agreement"). A portion of the Stock Consideration, in the aggregate amount of 1,375,000 shares of our Common Stock, has been placed in escrow to be held for a period of one (1) year for indemnification claims pursuant to an Escrow Agreement, dated August 3, 2007, by and among us, Former PharmAthene and Continental Stock Transfer & Trust Company, as escrow agent (the "Escrow Agreement"). Based upon the total number of shares electing conversion being in excess of 5% of our outstanding Common Stock prior to the

Merger, the Stock Consideration was adjusted upwards by 300,688 shares issuable to stockholders and optionholders of Former PharmAthene.

The Convertible Notes issued in exchange for Former PharmAthene's $11.8 million outstanding secured convertible notes will mature in 24 months. These Convertible Notes are convertible at the option of the holders into Common Stock at $10.00 per share and may be redeemed by us without penalty after 12 months.

On March 30, 2007, we entered into a $10 million credit facility with Silicon Valley Bank and Oxford Finance Corporation (the "Credit Facility"). Under the Credit Facility, we borrowed $10 million which loan bears interest at the rate of 11.5% per annum. Pursuant to the terms of the loan and security agreement evidencing the Credit Facility, we made monthly payments of interest only through September 30, 2007 and, going forward, we will make monthly payments of principal and interest over the remaining 30-month term of the loan. The loan is secured by a security interest in all of the assets of the Company and its subsidiary PharmAthene Canada Inc. other than certain intellectual property. We may prepay the loan provided we pay certain prepayment fees. In connection with the Credit Facility, we issued to Silicon Valley Bank and Oxford Financial Corporation warrants to purchase an aggregate of 438,453 shares of Former PharmAthene Series C Preferred Stock through March 30, 2017 at an exercise price of $0.91 per share which as a consequence of the Merger converted into 100,778 shares of our Common Stock, including 2,478 shares of the Adjustment, at an exercise price of $4.06 per share.

Our Contact Information

Our principal executive offices are located at One Park Place, Suite 450, Annapolis, MD 21401 and our telephone number at that location is (410) 269-2600.

RISK FACTORS

Investing in our securities involves risks. In addition to the other information in this prospectus, you should carefully consider the following risks before making an investment decision. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently consider immaterial may also impair our business operations. If any of the following risks actually occur, our business and financial results could be harmed. In that case, the trading price of our Common Stock could decline. You should also refer to the other

information set forth in our Current Reports on Form 8-K filed with the SEC on August 9, 2007 and September 24, 2007 reporting the Merger, as well as our other filings with the SEC including our financial statements and the related notes for the fiscal year ended December 31, 2006 and as of September 30, 2007.

Risks Related to Our Business

It is expected that the Company will incur net losses and negative cash flow for the foreseeable future and we cannot guarantee that we will achieve profitability and our business, results of operations, and financial condition may be materially adversely affected.

The Company has incurred significant losses since it commenced operations. For the year ended December 31, 2006, the Company incurred an operating loss of approximately $14.5 million. The pro forma combined accumulated deficit of the combined company is approximately $68.6 million at December 31, 2006. For the nine months ended September 30, 2007, the Company incurred an operating loss of approximately $11.2 million and an accumulated deficit is approximately $82.3 million at September 30, 2007. The Company's losses to date have resulted principally from research and development costs related to the development of its product candidates and general and administrative costs related to its operations.

It is expected that the Company will incur substantial losses for the foreseeable future as a result of increases in its research and development costs, including costs associated with conducting preclinical testing, clinical trials and regulatory compliance activities.

The Company's likelihood for achieving profitability will depend on numerous factors, including success in:

- developing and testing new product candidates;
- carrying out the combined company's intellectual property strategy;

- establishing the combined company's competitive position;
- pursuing third-party collaborations;
- acquiring or in-licensing products;
- receiving regulatory approvals;
- manufacturing and marketing products; and
- continuing to receive government funding and identifying new government funding opportunities.

Many of these factors will depend on circumstances beyond the Company's control. We cannot guarantee that we will achieve sufficient revenues for profitability. Even if we do achieve profitability, we cannot guarantee that we can sustain or increase profitability on a quarterly or annual basis in the future. If revenues grow slower than we anticipate, or if operating expenses exceed our expectations or cannot be adjusted accordingly, then our business, results of operations, financial condition and cash flows will be materially and adversely affected. Because our strategy might include acquisitions of other businesses, acquisition expenses and any cash used to make these acquisitions will reduce our available cash.

The Company is in various stages of product development and there can be no assurance of successful commercialization.

The Company has not commercialized any products or recognized any revenues from product sales. In general, the Company's research and development programs are at early stages. To obtain FDA approval for the Company's biological warfare defense products under current FDA regulations, the Company will be required to perform two animal model studies for efficacy and provide animal and human safety data. The Company's other products will be subject to the relevant approval guidelines under FDA requirements which include a number of phases of testing in humans. Even if the Company initially receives positive pre-clinical or clinical results, such results may not be indicative of similar results that could be anticipated in the later stages of drug development, such as additional pre-clinical testing or human clinical trials.

Other than the Valortim™ product candidate, the research and development program for the Company is at an early stage. Other drug candidates developed by the combined company will require significant additional research and development efforts, including extensive pre-clinical and clinical testing and regulatory approval, prior to commercial sale. We cannot be sure that the Company's approach to drug discovery will be effective or will result in the development of any drug. The Company does not expect that any drugs resulting from the research and development efforts of the Company will be commercially available for several years, if at all. Even if the Company succeeds in developing and commercializing its product candidates, it may never generate sufficient or sustainable revenues to enable it to be profitable. Furthermore, even if the product candidates of the Company are successful when tested in animals, such success would not be a guarantee of the effectiveness and safety of such product candidates in humans. The Company's first product, its Dominate Negative Inhibitor ("DNI"), was demonstrated to be effective in animal testing, but was determined to be unsafe for humans following clinical trials in human subjects. The DNI program was subsequently terminated. There can be no assurances that one or more of the Company's future product candidates would not similarly fail to meet safety standards in human testing, even if those product candidates were found to be effective in animal studies. There can be no assurances that any such product candidates will prove to be effective in humans.

Most of the Company's immediately foreseeable future revenues are contingent upon grants and contracts from the U.S. government and collaborative and license agreements and the Company may not achieve sufficient revenues from these agreements to attain profitability.

Until and unless the Company successfully markets a product, its ability to generate revenues will largely depend on its ability to enter into additional collaborative agreements, strategic alliances, research grants, contracts and license agreements with third parties, including, without limitation, the U.S. government and branches and agencies thereof, and maintain the agreements it currently has in place. Substantially all of the revenue of the Company for the years ended December 31, 2006, 2005 and 2004, respectively, were derived from revenues related to grants and contracts.

In addition, the Company's business plan calls for significant payments from milestone based collaborative agreements. The Company may not earn significant milestone payments under its existing collaborative agreements until its collaborators have advanced products into clinical testing, which may not occur for many years, if at all.

The Company has a material agreement with Medarex, Inc., to develop Valortim™, its fully human monoclonal antibody product designed to protect against and treat inhalation anthrax. Under the agreement with Medarex, the Company will be entitled to a variable percentage of profits derived from sales of Valortim™, depending, in part, on the amount of its investment. In addition, the Company has entered into licensing and research and development agreements with a number of other parties and collaborators.

The Company may need additional capital in the future. If additional capital is not available or not available on acceptable terms, the Company may be forced to delay or curtail the development of its product candidates.

The Company's requirements for additional capital may be substantial and will depend on many other factors, including:

- continued funding by the DoD and other branches and agencies of the U.S. Government;
- payments received under present or future collaborative partner agreements;
- continued progress of research and development of the Company's products;
- the Company's ability to license compounds or products from others;
- costs associated with protecting the Company's intellectual property rights;
- development of marketing and sales capabilities; and
- market acceptance of the Company's products.

To the extent the Company's capital resources are insufficient to meet future capital requirements, it will have to raise additional funds to continue the development of its product candidates. We cannot assure you that funds will be available on favorable terms, if at all. To the extent the Company raises additional capital through the sale of securities, the issuance of those securities could result in dilution which may be substantial to the Company's stockholders. In addition, if the Company incurs debt financing, a substantial portion of its operating cash flow may be dedicated to the payment of principal and interest on such indebtedness, thus limiting funds available for the Company's business activities. If adequate funds are not available, the Company may be required to curtail significantly its development and commercialization activities.

Biodefense treatment and drug development is an expensive and uncertain process, and delay or failure can occur at any stage of the Company's development process.

To develop and commercialize biodefense treatment and drug candidates, the Company must provide the FDA and foreign regulatory authorities with clinical data that demonstrates adequate safety and immune response. This involves engaging in clinical trials, which is a lengthy and expensive process, the outcome of which is uncertain. Because humans are not normally exposed to anthrax, nerve agents, smallpox or to other lethal biotoxins or chemical agents, statistically significant effectiveness of the Company's biodefense product candidates cannot be demonstrated in humans, but instead must be demonstrated, in part, by utilizing animal models before they can be approved for commercial sale. Delays in obtaining results can occur for a variety of reasons such as slower than anticipated enrollment by volunteers in the trials, adverse events related to the products and unsatisfactory results of any trial. Any delay or adverse clinical event arising during any of its clinical trials could force the Company to abandon a product altogether or to conduct additional clinical trials in order to obtain approval from the FDA and other regulatory bodies. The Company's development costs will increase substantially if it experiences material delays in any clinical trials or if it needs to conduct more or larger trials than planned. Additionally, few facilities in the U.S. have the capability of testing animals with anthrax or nerve agent exposure. The Company may not be able to secure clinical contracts to conduct the testing in a predictable timeframe or at all. Further, if delays are significant, or if any of the Company's products do not prove to be safe or effective or do not receive required regulatory approvals, and the Company will be unable to recognize revenues from the sale of products, the commercial prospects for its product candidates will be adversely affected.

Even if the Company completes the development of its nerve agent countermeasure and anthrax treatment product, if the Company fails to obtain contracts to supply products to the U.S. government or the U.S. government does not purchase sufficient quantities of its products, the Company may be unable to generate sufficient revenues to continue operations.

The U.S. government has undertaken commitments to help secure improved countermeasures against bioterrorism including the stockpiling of treatments and vaccines for anthrax through a program known as the SNS. However, the process of obtaining government contracts is lengthy and uncertain and the Company will have to compete with other companies for each contract. There can be no assurances that the Company will be awarded any contracts to supply the U.S. government with its products as such awards may be made, in whole or in part, to the Company's competitors. If the U.S. government makes significant future contract awards for the supply of its emergency stockpile to the Company's competitors, the Company's business will be harmed and it is unlikely that the Company will ultimately be able to commercialize that particular treatment or product.

Further, changes in government budgets and agendas may result in a decreased and de-prioritized emphasis on procuring the biodefense products the Company will develop. In addition, government contracts typically contain provisions that permit cancellation in the event that funds become unavailable to the governmental agency. If the U.S. government makes significant future contract awards to the Company's competitors at the exclusion of the Company or otherwise fails to purchase the Company's products, it is unlikely that the Company will ultimately be able to commercialize that particular treatment or product or that it will be able to generate sufficient revenues to continue operations.

U.S. government agencies have special contracting requirements, which give them the ability to unilaterally control its contracts with the Company.

The Company anticipates that its primary sales will be to the U.S. government. U.S. government contracts typically contain unfavorable termination provisions and are subject to audit and modification by the government at its sole discretion, which will subject the Company to additional risks. These risks include the ability of the U.S. government to unilaterally:

- suspend or prevent the Company for a set period of time from receiving new contracts or extending existing contracts based on violations or suspected violations of laws or regulations;
- terminate the Company's contracts;
- reduce the scope and value of the Company's contracts;
- audit and object to the Company's contract-related costs and fees, including allocated indirect costs;
- control and potentially prohibit the export of the Company's products; and
- change certain terms and conditions in the Company's contracts.

The U.S. government will be able to terminate any of its contracts with the Company either for its convenience or if the Company defaults by failing to perform in accordance with the contract schedule and terms. Termination for convenience provisions would generally enable the Company to recover only the Company's costs incurred or committed, and settlement expenses and profit on the work completed prior to termination. Termination for default provisions do not permit these recoveries and would make the Company liable for excess costs incurred by the U.S. government in procuring undelivered items from another source.

The Company may fail to fully realize the potential of Valortim™ and of its co-development arrangement with its partner in the development of Valortim™ which would have an adverse affect upon its business.

The Company and its development partner have completed the first Phase I clinical trial for Valortim™ without any reported adverse reactions. However, before it may begin selling any doses of Valortim™, it will need to conduct a more comprehensive Phase I trial to a significantly larger group of subjects. The Company will be required to expend a significant amount to scale up manufacturing capability through a contract manufacturer in order to conduct the more extensive Phase I clinical trial. The Company does not expect to commence this trial until 2008. If the Company's contract manufacturer is unable to produce sufficient quantities at a reasonable cost, then the Company will be unable to commence the necessary clinical trials necessary to begin marketing Valortim™. Even after the Company expends the sufficient funds to complete the development of Valortim™ and when and if it enters into an agreement to market Valortim™ to the U.S, government, it will be required to share any and all profits from the sale of products with its partner in accordance with a pre-determined formula.

If the Company cannot enter into new licensing arrangements, its ability to develop a diverse product portfolio could be limited and its ability to compete would be harmed.

A component of the Company's business strategy will be in-licensing compounds and products developed by other pharmaceutical and biotechnology companies or academic research laboratories that may be marketed and developed or improved upon using the Company's novel technologies. Competition for promising compounds or products can be intense. If the Company is not able to identify new licensing opportunities or enter into other licensing arrangements on acceptable terms, it may be unable to develop a diverse portfolio of products.

The Company will face competition from several companies with greater financial, personnel and research and development resources. Its commercial opportunities may be reduced or eliminated if its competitors are more successful in the development and marketing of their products.

The biopharmaceutical industry is characterized by rapid and significant technological change. The Company's success will depend on its ability to develop and apply its technologies in the design and development of its product candidates and to establish and maintain a market for its product candidates. There also are many companies, both public and private, including major pharmaceutical and chemical companies, specialized biotechnology firms, universities and other research institutions engaged in developing pharmaceutical and biotechnology products. Many of these companies have substantially greater financial, technical, research and development, and human resources than those of the Company. Competitors may develop products or other technologies that are more effective than any that are being developed by the Company or may obtain FDA approval for products more rapidly. If the Company commences commercial sales of products, it still must compete in the manufacturing and marketing of such products, areas in which it has limited experience. Many of these companies also have manufacturing facilities and established marketing capabilities that would enable such companies to market competing products through existing channels of distribution. The Company's commercial opportunities will be reduced or eliminated if its competitors develop and market products for any of the harmful effects that it targets that:

- are more effective;
- have fewer or less severe adverse side effects;
- are more adaptable to various modes of dosing;
- are easier to administer; or
- are less expensive than the products or product candidates the Company will be developing.

Even if the Company is successful in developing effective products, and obtains FDA and other regulatory approvals necessary for commercializing them, its products may not compete effectively with other successful products. The Company's competitors may succeed in developing and marketing products either that are more effective than those that it may develop, alone or with its collaborators, making its products obsolete, or that are marketed before any products that the Company develops are marketed.

Companies that are developing products that would compete with the Company's products include: VaxGen, Inc., which is developing vaccines against anthrax and smallpox; Avant Immunotherapeutics, Inc., which has vaccine programs for agents of biological warfare, including plague and anthrax; Human Genome Sciences, Inc., Elusys Therapeutics, Inc. and AVANIR Pharmaceuticals, Inc., all of which are developing monoclonal antibodies as anthrax treatments. Other competitors of the Company include: Emergent Biosolutions Inc., Merck & Co., Inc., Bio Sante Pharmaceuticals, Inc., Dynport Vaccine Company, LLC ("DVC") and Ligocyte Pharmaceuticals, Inc.

Political or social factors may delay or impair the Company's ability to market its products and its business may be materially adversely affected.

Products developed to treat diseases caused by, or to combat the threat of, bioterrorism will be subject to changing political and social environments. The political and social responses to bioterrorism have been unpredictable. Political or social pressures may delay or cause resistance to bringing the Company's products to market or limit pricing of its products, which would harm the Company's business.

The U.S. government's determination to award any contracts to the Company may be challenged by an interested party, such as another bidder, at the General Accounting Office or in federal court. If such a challenge is successful, a contract may be terminated.

The laws and regulations governing the procurement of goods and services by the U.S. government provide procedures by which other bidders and other interested parties may challenge the award of a government contract. In the event that the Company is awarded a government contract, such protests could be filed even if there are not any valid legal grounds on which to base the protest. If any such protests are filed, the government agency may decide to suspend the Company's performance under the contract while such protests are being considered by the General Accounting Office or the applicable federal court, thus potentially delaying delivery of goods and services and payment. In addition, the Company could be forced to expend considerable funds to defend any potential award. If a protest is successful, the government may be ordered to terminate the Company's contract at its convenience and reselect bids. The government could even be directed to award a potential contract to one of the other bidders.

Legal and Regulatory Risks of Development Stage Biotechnology Companies

The Company's commercial success will be affected significantly by its ability to obtain protection for its proprietary technology and that of its licensors and collaborators and not infringe the patents and proprietary rights of third parties.

The patent position of biotechnology firms generally is highly uncertain and involves complex legal and factual questions. To date, no consistent policy has emerged regarding the breadth of claims allowed in biotechnology patents. The Company currently holds two U.S. patents and has five U.S. patent applications pending. In addition, it has rights under numerous other patents and patent applications pursuant to exclusive and non-exclusive license arrangements with licensors and collaborators. However, there can be no assurance that patent applications owned or licensed by the Company will result in patents being issued or that the patents, existing or issued in the future, will afford protection against competitors with similar technology. Any conflicts resulting from third-party patent applications and patents could significantly reduce the coverage of the patents owned, optioned by or licensed to the Company or its collaborators and limit the ability of the Company or that of its collaborators to obtain meaningful patent protection.

Further, the commercial success of the Company will depend significantly on its ability to operate without infringing the patents and proprietary rights of third parties. The Company is aware of one U.S. patent covering recombinant production of an antibody, which, it has been argued, covers any reproduction of an antibody, as well as another U.S. patent application with claims over pegylated butyrylcholinesterase.

Although the Company believes that neither Valortim™, which is a monoclonal antibody and uses recombinant reproduction of antibodies, nor Protexia®, which uses pegylated butyrylcholinesterase technology, infringes on any valid claims of such patents, the Company cannot provide any assurances that if a legal action based on either of these two patents were to be brought against the Company or its distributors, licensees or collaborators, that the Company or its distributors, licensees or collaborators would prevail or that the Company would have sufficient funds or resources to defend such claims. If patents are issued to third parties that contain competitive or conflicting claims, the Company, its licensors or collaborators may be legally prohibited from researching, developing or commercializing potential products or be required to obtain licenses to these patents or to develop or obtain alternative technology. The Company, its licensors and/or its collaborators may be legally prohibited from using patented technology, may not be able to obtain any license to the patents and technologies of third parties on acceptable terms, if at all, or may not be able to obtain or develop alternative technologies.

The costs associated with establishing the validity of patents, of defending against patent infringement claims of others and of asserting infringement claims against others is expensive and time consuming, even if the outcome is favorable. An outcome of any patent prosecution or litigation that is unfavorable to the Company or one of its licensors or collaborators may have a material adverse effect on the Company.

Any inability to protect the Company's intellectual property could harm its competitive position and adversely affect its business.

The Company's success will depend, in part, on its ability to obtain patents and maintain adequate protection of other intellectual property for its technologies and products in the U.S. and other countries. If the Company does not adequately protect its intellectual property, competitors may be able to use its technologies and erode or negate its competitive advantages. Further, the laws of some foreign countries will not protect the Company's proprietary rights to the same extent as the laws of the U.S., and the Company may encounter significant problems in protecting its proprietary rights in these foreign countries.

The patent positions of pharmaceutical and biotechnology companies, including the Company's patent positions, involve complex legal and factual questions and, therefore, validity and enforceability cannot be predicted with certainty. Patents may be challenged, deemed unenforceable, invalidated or circumvented. The Company will be able to protect its proprietary rights from unauthorized use by third parties only to the extent that it covers its proprietary technologies with valid and enforceable patents or that it effectively maintains such proprietary technologies as trade secrets. The Company will apply for patents covering its technologies and product candidates as it deems appropriate. The Company may fail to apply for patents on important technologies or products in a timely fashion, or at all, and in any event, the applications the Company files may be challenged and may not result in issued patents. Any future patents the Company obtains may not be sufficiently broad to prevent others from practicing its technologies or from developing competing products. Furthermore, others may independently develop similar or alternative technologies or design around the Company's patented technologies. In addition, if challenged, the Company's patents may be declared invalid. Even if valid, the Company's patents may fail to provide it with any competitive advantages.

The Company will rely upon trade secrets protection for its confidential and proprietary information. The Company has taken measures to protect its proprietary information; however, these measures may not provide adequate protection to the Company. The Company has sought to protect their proprietary information by entering into confidentiality agreements with employees, collaborators and consultants. Nevertheless, employees, collaborators or consultants may still disclose the companies' proprietary information, and the Company may not be able to meaningfully protect its trade secrets. In addition, others may independently develop substantially equivalent proprietary information or techniques or otherwise gain access to the Company's trade secrets.

The Company's use of hazardous materials and chemicals require it to comply with regulatory requirements which may result in significant costs and expose it to potential liabilities.

The Company's research and development involves the controlled use of hazardous materials and chemicals. The Company will be subject to federal, state, local and foreign laws governing the use, manufacture, storage, handling and disposal of such materials. The Company will not be able to eliminate the risk of accidental contamination or injury from these materials. In the event of such an accident, the Company could be held liable for significant damages or fines, and these damages could exceed its resources and any applicable insurance coverage. In addition, the Company may be required to incur significant costs to comply with regulatory requirements in the future.

The Company may become subject to product liability claims, which could reduce demand for its product candidates or result in damages that exceed its insurance coverage.

The Company will face an inherent risk of exposure to product liability suits in connection with its products being tested in human clinical trials or sold commercially. The Company may become subject to a product liability suit if any product it develops causes injury, or if treated individuals subsequently become infected or otherwise suffer adverse effects from its products. Regardless of merit or eventual outcome, product liability claims may result in decreased demand for a product, injury to the Company's reputation, withdrawal of clinical trial volunteers and loss of revenues.

If a product liability claim is brought against the Company, the cost of defending the claim could be significant and any adverse determination may result in liabilities in excess of its insurance coverage. Additionally, the Company will be applying for indemnification under the Support Anti-terrorism by Fostering Effective Technologies Act of 2002 which preempts and modifies tort laws so as to limit the claims and damages potentially faced by companies who provide certain "qualified" anti-terrorism products. However, the Company cannot be certain that it will be able to obtain or maintain adequate insurance coverage on acceptable terms, if at all.

Legislation limiting or restricting liability for medical products used to fight bioterrorism is new, and the Company cannot be certain that any such protection will apply to its products and, therefore, the Company could become subject to product liability suits and other third party claims if such

protections do not apply.

The Public Readiness and Emergency Preparedness Act ("Public Readiness Act") was signed into law in December 2005 and creates general immunity for manufacturers of countermeasures, including security countermeasures (as defined in Section 319F-2(c)(1)(B)), when the Secretary of Defense issues a declaration for their manufacture, administration or use. The declaration is meant to provide general immunity from all claims under state or federal law for loss arising out of the administration or use of a covered countermeasure. Manufacturers are excluded from this protection in cases of willful misconduct.

Upon a declaration by the Secretary of Health and Human Services, a compensation fund is created to provide "timely, uniform, and adequate compensation to eligible individuals for covered injuries directly caused by the administration or use of a covered countermeasure." The "covered injuries" to which the program applies are defined as serious physical injuries or death. Individuals are permitted to bring a willful misconduct action against a manufacturer only after they have exhausted their remedies under the compensation program. A willful misconduct action could be brought against us if an individual(s) has exhausted their remedies under the compensation program which thereby could expose us to liability. the Company may become subject to standard product liability suits and other third party claims if products it develops which fall outside of the Public Readiness Act cause injury or if treated individuals subsequently become infected or otherwise suffer adverse effects from such products.

The Company may be subject to claims that it or its employees wrongfully used or disclosed alleged trade secrets of the employees' former employers. Such litigation could result in substantial costs and be a distraction to the Company's management.

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

If the Company experiences delays in obtaining regulatory approvals, or is unable to obtain or maintain regulatory approvals, it may be unable to commercialize any products.

The Company will need to conduct a substantial amount of additional research and development before any U.S. or foreign regulatory authority will approve any of its products. In addition, the Company's product candidates will be subject to extensive and rigorous domestic government regulation. Results of the Company's research and development activities may indicate that its potential products are unsafe or ineffective. In this case, regulatory authorities will not approve them. Even if approved, the Company's products may not be commercially successful. If the Company fails to develop and commercialize its products, it may be forced to curtail or cease operations.

In addition, the commencement and rate of completion of clinical trials for the Company's products may be delayed by many factors, including:

- lack of efficacy during the clinical trials in animals;
- unsatisfactory results of any clinical trial;
- unforeseen safety issues;
- slower than expected rate of patient recruitment; or
- government or regulatory delays.

Delays in obtaining regulatory approvals may:

- adversely affect the commercialization of any products that the Company or its collaborative partners develop;
- impose costly procedures on the Company or its collaborative partners;
- diminish any competitive advantages that the Company or its collaborative partners may attain; and
- adversely affect the Company's receipt of revenues or royalties.

The results from preclinical testing and early clinical trials are often not predictive of results obtained in later clinical trials. Although a new product may show promising results in initial clinical trials, it may subsequently prove unfeasible or impossible to generate sufficient safety and efficacy data to obtain necessary regulatory approvals. Data obtained from preclinical and clinical

studies are susceptible to varying interpretations, which may delay, limit or prevent regulatory approval. In addition, the Company may encounter regulatory delays or rejections as a result of many factors, including results that do not support its claims, perceived defects in the design of clinical trials and changes in regulatory policy during the period of product development. The Company's business, financial condition, prospects and results of operations may be materially adversely affected by any delays in, or termination of, its clinical trials or a determination by the FDA that the results of the Company's trials are inadequate to justify regulatory approval.

Any required approvals, once obtained, may be withdrawn. Further, if the companies fail to comply with applicable FDA and other regulatory requirements at any stage during the regulatory process, it may encounter difficulties including:

- delays in clinical trials or commercialization;
- product recalls or seizures;
- suspension of production and/or distribution;
- withdrawals of previously approved marketing applications; and
- fines, civil penalties and criminal prosecutions.

The Company's collaborative partners may not be able to conduct clinical testing or obtain necessary approvals from the FDA or other regulatory authorities for any product candidates. If the Company fails to obtain required governmental approvals, it or its collaborative partners will experience delays in, or be precluded from, marketing products developed through it or, as applicable, their research.

The Company and its contract manufacturers will also be required to comply with the applicable FDA good manufacturing practice regulations. Good manufacturing practice regulations include requirements relating to quality control and quality assurance as well as the corresponding maintenance of records and documentation. Manufacturing facilities are subject to inspection by the FDA. These facilities must be approved before the Company will be able to use them in commercial manufacturing of their products. The Company and its contract manufacturers may not be able to comply with the applicable good manufacturing practice requirements and other FDA regulatory requirements. If the Company and its contract manufacturers fail to comply, they could be subject to fines or other sanctions, or be precluded from marketing their products.

The Company may be required to perform additional clinical trials or change the labeling of its products if it or others identify side effects after its products are on the market, which could harm sales of the affected products.

If the Company or others identify side effects after any of its products are on the market, or if manufacturing problems occur:

- regulatory approval may be withdrawn;
- reformulation of the affected products, additional clinical trials, or changes in labeling of the Company's products may be required;
- changes to or re-approvals of the Company's manufacturing facilities may be required;
- sales of the affected products may drop significantly;
- the Company's reputation in the marketplace may suffer; and
- lawsuits, including class action suits, may be brought against the Company.

Any of the above occurrences could harm or prevent sales of the affected products or could increase the costs and expenses of commercializing and marketing these products.

Risks Related to the Company's Common Stock

If the Company's initial stockholders exercise their registration rights, it may have an adverse effect on the market price of its Common Stock.

The Company's initial stockholders are entitled to require it to register the resale of their shares of Common Stock at any time after the date on which their shares are released from escrow, which, except in limited circumstances, will not be before July 29, 2008. If the Company's initial stockholders exercise their registration rights with respect to all of their shares of Common Stock, then there will be an additional 2,250,000 shares of Common Stock eligible for trading in the public market. The presence of this additional number of shares of Common Stock eligible for trading in the public market may have an adverse effect on the market price of the Company's Common Stock.

The American Stock Exchange may delist the Company's securities from trading which could limit investors' ability to make transactions in its securities and subject it to additional trading restrictions.

The Company's Common Stock and some warrants are listed on the AMEX, a national securities exchange. The Company cannot assure you that its securities will continue to be listed on the AMEX. If the AMEX delists the Company's securities from trading on its exchange and it is not able to list its securities on another exchange or to have them quoted on Nasdaq, the Company's securities could be quoted on the OTC Bulletin Board, or "pink sheets". As a result, we could face significant adverse consequences including:

- a limited availability of market quotations for our securities;
- a determination that the Company's Common Stock is a "penny stock" which will require brokers trading in the Company's Common Stock to adhere to more stringent rules and possibly resulting in a reduced level of trading activity in the secondary trading market for the Company's securities;
- a limited amount of news and analyst coverage for the Company; and
- a decreased ability to issue additional securities or obtain additional financing in the future.

The National Securities Markets Improvement Act of 1996, which is a federal statute, prevents or preempts the states from regulating the sale of certain securities, which are referred to as "covered securities". Since the Company's securities are listed on the AMEX, its securities are covered securities. Although the states are preempted from regulating the sale of the Company's securities, the federal statute does allow the states to investigate companies if there is a suspicion of fraud, and if there is a finding of fraudulent activity, then the states can regulate or bar the sale of covered securities in a particular case. While the Company is not aware of a state having used these powers to prohibit or restrict the sale of securities issued by blank check companies generally, certain state securities regulators view blank check companies unfavorably and might use these powers, or threaten to use these powers, to hinder the sale of securities of blank check companies in their states.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and other documents we file with the SEC contain or may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, Section 21E of the Securities Exchange Act of 1934 ("Exchange Act") and the Private Securities Litigation Reform Act of 1995 (the "PSLRA"). Forward-looking statements are based on current expectations, estimates, forecasts and projections about us, our future performance, the industries in which we operate, our beliefs and our management's assumptions. In addition, other written or oral statements that constitute forward-looking statements may be made by or on behalf of us. Words such as "expects," "anticipates," "targets," "goals," "projects," "intends," "plans," "believes," "seeks," "estimates," variations of such words and similar expressions are intended to identify such forward-looking statements. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions that are difficult to predict. Therefore, actual outcomes and results may differ materially from what is expressed or forecasted in such forward-looking statements. Except as required under the federal securities laws and the rules and regulations of the SEC, we do not have any intention or obligation to update publicly any forward-looking statements after the distribution of this prospectus, whether as a result of new information, future events, changes in assumptions, or otherwise.

USE OF PROCEEDS

We will not receive any of the proceeds from the sale of our Common Stock offered by the selling stockholders named in this prospectus.

SELLING STOCKHOLDERS

An aggregate of up to 14,486,784 shares of our Common Stock will be registered for resale by the selling stockholders under this prospectus, including (i) 12,223,296 shares of Common Stock issued to stockholders pursuant to the Merger Agreement, (ii) 550,000 shares of Common Stock acquired by David P. Wright and the funds affiliated with MPM Capital L.P. and Healthcare Ventures VII, L.P. on August 2, 2007 and August 3, 2007, (iii) 1,231,273 shares of Common Stock underlying 8% convertible notes with a fixed conversion price of $10.00 per share also issued under the Merger Agreement, (iv) 366,900 shares of Common Stock underlying warrants with a fixed exercise price of $6.00 per share issued prior to the Merger and held by John Pappajohn, Derace L. Schaffer, M.D., Matthew P. Kinley and Edward Berger, our officers and/or directors prior to the Merger, (v) 100,778 shares of Common Stock underlying warrants with a fixed exercise price of $4.06 per share issued pursuant to the Credit Facility and assumed by us under the Merger Agreement, and (vi) 14,537 shares of Common Stock underlying warrants with a fixed exercise price of $0.20 per share issued to our former landlord, Chesapeake Innovation Center LLC, and assumed by us under the Merger Agreement. All of the securities referred to above were issued to "accredited investors" as defined in Regulation D, Rule 501 of the Securities Act, and issued pursuant to an exemption from registration under Section 4(2) or Regulation D, Rule 506 of the Securities Act.

To the extent permitted by law, the selling stockholders listed below may resell shares pursuant to this prospectus. We have registered the sale of the shares to permit the selling stockholders and their respective permitted transferees or other successors in interest that receive their shares from the selling stockholders after the date of this prospectus to resell the shares.

The following table sets forth the name of the selling stockholders, the number of shares of Common Stock beneficially owned by each of the selling stockholders as of December 21, 2007 and the number of shares of Common Stock being offered by the selling stockholders. The selling stockholders may sell all, some or none of their shares in this offering. All information with respect to share ownership has been furnished by the selling stockholders and/or obtained from certain beneficial ownership filings made by the selling stockholders with the SEC. The "Shares Beneficially Owned After the Offering" column assumes the sale of all shares offered.

Name of Selling Stockholder	Number of Shares Beneficially Owned Prior to the Offering		Number of Share Being Offered	Shares Beneficially Owned After the Offering	
	Number	Percentage(1)		Number	Percentage(1)
Funds Affiliated with MPM Capital L.P.(2)	3,960,396	17.56%	3,960,396	0	0%

Ontario Teachers' Pension Plan Board(3)	855,261	3.86%	855,261	0	0%
Funds affiliated with Bear Stearns Health Innoventures Management, LLC(4)	1,578,494	7.06%	1,574,193	4,301	*
Healthcare Ventures VII, L.P.(5)	3,498,748	15.71%	3,498,748	0	0%
Canadian Medical Discoveries Fund Inc.(6)	806,111	3.62%	806,111	0	0%
Nexia Biotechnologies Ltd.(7)	1,715,974	7.77%	1,715,974	0	0%
BX Associates Limited	450,975	2.04%	450,975	0	0%
Joseph Klein III(8)	7,728	*	7,728	0	0%
R. John Collier, Ph.D.	86,231	*	86,231	0	0%
John Mekalanos, Ph.D.(9)	83,824	*	81,618	2,206	*
Stephen Lory, Ph.D.	70,923	*	70,923	0	0%
Joel McCleary(10)	111,289	*	104,083	7,206	*
A&P Investment Holdings 2002, L.L.C.	70,923	*	70,923	0	0%
John A. T. Young, Ph.D.	53,192	*	53,192	0	0%
James P. Lewkowski	58,988	*	58,988	0	0%
Lavinia M. Currier	5,101	*	5,101	0	0%
Lavinia M. Currier Children's Trust U/A dtd 10/24/94(11)	7,653	*	7,653	0	0%
Michael R. L. Astor	5,101	*	5,101	0	0%
Eileen Shapiro	2,550	*	2,550	0	0%

Howard Stevenson	2,550	*	2,550	0	0%
John Preston	2,550	*	2,550	0	0%
John Essigmann	2,550	*	2,550	0	0%
General Wesley Clark	10,204	*	10,204	0	0%
Gopinath N. Menon	3,879	*	3,879	0	0%
Yisum Research Development Company of the Hebrew University of Jerusalem	10,204	*	10,204	0	0%
Mark E. Cooke(12)	7,636	*	1,804	5,832	*
Julie K. Parks	1,806	*	1,806	0	0%
David P. Wright(13)	217,045	*	107,135	109,910	*
John K. Troyer(14)	11,182	*	2,660	8,522	*
Valerie D. Riddle, M.D.(15)	81,995		8,821	73,174	*
Francesca M. Cook(16)	54,945	*	5,101	49,844	*
Paula Foster(17)	432	*	63	369	*
MDS Life Sciences Technology Fund USA L.P.(18)	7,147	*	7,147	0	0%
Eric Richman(19)	109,732	*	814	108,918	*
Ronald W. Kaiser(20)	820	*	820	0	0%
Riverview Group LLC(21)	205,186	*	205,186	0	0%
Steel Partners II, L.P.(22)	1,076,594	4.87%	85,494	991,100	4.49%
Funds Affiliated with Hummingbird Capital, LLC(23)	745,032	3.37%	98,072	646,960	2.93%
Basso Multi-Strategy Holding Fund Ltd.(24)	15,731	*	15,731	0	0%
Basso Fund Ltd.(25)	1,368	*	1,368	0	0%
Judson Cooper	90,585	*	9,541	81,044	*
Chesapeake Innovation Center LLC(26)	14,537	*	14,537	0	0%
Silicon Valley Bank(27)	50,389	*	50,389	0	0%
Oxford Finance Corporation(28)	50,389	*	50,389	0	0%
Jerome Parks(29)	5,320	*	5,320	0	0%
John Pappajohn(30)	808,124	3.64%	141,960	666,164	3.00%
Derace L. Schaffer, M.D.(31)	708,124	3.19%	141,960	566,164	2.55%
Matthew P. Kinley(32)	346,562	1.56%	70,980	275,582	1.24%
Edward B. Berger(33)	23,509	*	12,000	11,509	*
Total	**18,095,589**	**74.89%**	**14,486,784**	**3,608,805**	**14.94%**

* Less than 1.0%

(1) Based on 22,087,121 shares of Common Stock outstanding as of December 21, 2007. Beneficial ownership is determined in accordance with the rules and regulations of the SEC. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, shares of Common Stock underlying warrants, Convertible Notes or subject to options held by that person that are currently exercisable or exercisable within 60 days of the date hereof are deemed outstanding. Such shares, however, are not deemed outstanding for the purposes of computing the percentage ownership of any other person. Except as indicated in the following footnotes to the following table or pursuant to applicable community property laws, each stockholder named in the table has sole voting and investment power with respect to the shares set forth opposite such stockholder's name.

(2) Consists of 3,489,443 shares of Common Stock held by MPM BioVentures III-QP, L.P., MPM BioVentures III GmbH & Co. Beteiligungs KG, MPM BioVentures III, L.P., MPM BioVentures III Parallel Fund, L.P. and MPM Asset Management Investors 2004 BVIII LLC, and 470,953 shares of Common Stock issuable upon conversion of Convertible Notes in the principal amount of $4,709,553.61. MPM BioVentures III GP, L.P. and MPM BioVentures III LLC are the direct and indirect general partners of MPM BioVentures III-QP, L.P., MPM BioVentures III GmbH & Co. Beteiligungs KG, MPM BioVentures III, L.P. and MPM BioVentures III Parallel Fund, L.P. The members of MPM BioVentures III LLC and MPM Asset Management Investors 2004 BVIII LLC are Luke Evnin, Ansbert Gadicke, Nicholas Galakatos, Dennis Henner, Nicholas Simon III, Michael Steinmetz and Kurt Wheeler, who disclaim beneficial ownership of these shares except to the extent of their proportionate pecuniary interest therein. Dr. Steven St. Peter, a member of our Board of Directors, is affiliated with the MPM Funds.

(3) Includes 87,693 shares of Common Stock issuable upon the conversion of Convertible Notes in the principal amount of $876,938.49.

(4) Consists of 1,320,087 shares of Common Stock held by Bear Stearns Health Innoventures, L.P., Bear Stearns Health Innoventures Offshore, L.P., BX, L.P., Bear Stearns Health Innoventures Employee Fund, L.P. and BSHI Members, LLC, and 254,106 shares of Common Stock issuable upon the conversion of Convertible Notes in the principal amount of $2,541,079.27 held by such funds. Also includes options to purchase 4,301 shares of Common Stock (representing the portion of an option to purchase a total of 16,104 shares of Common Stock that is currently exercisable or will become exercisable within 60 days of this Registration Statement) originally granted to Elizabeth Czerepak and assigned by her to these funds. Ms. Czerepak, a member of our Board of Directors, is a managing partner of Bear Stearns Health Innoventures Management, LLC, which is the sole general partner of Bear Stearns Health Innoventures, L.P., Bear Stearns Health Innoventures Offshore, L.P., BX, L.P. and Bear Stearns Health Innoventures Employee Fund, L.P., and BSHI Members, LLC co-invests with these funds. Ms. Czerepak disclaims beneficial ownership of these shares except to the extent of her proportionate pecuniary interest therein.

(5) Consists of 3,317,243 shares of Common Stock and 181,505 shares of Common Stock issuable upon conversion of Convertible Notes in the principal amount of $1,815,056.92. Dr. James Cavanaugh, a member of our Board of Directors, is a general partner of HealthCare Partners VII, L.P., which is the general partner of HealthCare Ventures VII, L.P. In such capacity he may be deemed to share voting and investment power with respect to these shares. Dr. Cavanaugh disclaims beneficial ownership of these shares except to the extent of his proportionate pecuniary interest therein.

(6) Includes 210,410 shares of Common Stock issuable upon the conversion of Convertible Notes in the principal amount of $2,104,105.71. JovInvestment Management Inc. is the agent of Canadian Medical Discoveries Fund Inc. and has voting and investment control over these shares.

(7) Nexia Biotechnologies Ltd. (“Nexia”) is a Canadian public company. No one shareholder of Nexia owns more than 10% of Nexia or has voting and investment control over these shares.

(8) Includes 964 shares of Common Stock issuable upon the conversion of Convertible Notes in the principal amount of $9,644.12.

(9) Includes (i) options to purchase 2,206 shares of Common Stock (representing the portion of an to purchase a total of 2,759 shares of Common Stock that is currently exercisable or will become exercisable within 60 days of this Registration Statement), and (ii) 10,695 shares of Common Stock issuable upon the conversion of Convertible Notes in the principal amount of $106,953.67.

(10) Includes (i) options to purchase 7,206 shares of Common Stock (representing the portion of an option to purchase a total of 22,759 shares of Common Stock that is currently exercisable or will become exercisable within 60 days of this Registration Statement), and (ii) 2,673 shares of Common Stock issuable upon the conversion of Convertible Notes in the principal amount of $26,738.42. Mr. McCleary is a member of our Board of Directors.

(11) Lavinia M. Currier is the trustee of Lavinia M. Currier Children’s Trust U/A dtd 10/24/94 and has voting and investment control over these shares.

(12) Includes options to purchase 5,832 shares of Common Stock (representing the portion of an option to purchase a total of 23,333 shares of Common Stock that is currently exercisable or will become exercisable within 60 days of this Registration Statement).

(13) Includes (i) options to purchase 109,910 shares of Common Stock (representing the portion of an option to purchase a total of 1,013,265 shares of Common Stock that is currently exercisable or will become exercisable within 60 days of this Registration Statement) and (ii) 5,320 shares of Common Stock issuable upon conversion of Convertible Notes in the principal amount of $53,204.86. Wright is our President and Chief Executive Officer and a member of our Board of Directors.

(14) Includes options to purchase 8,522 shares of Common Stock (representing the portion of an option to purchase a total of 30,245 shares of Common Stock that is currently exercisable or will become exercisable within 60 days of this Registration Statement).

(15) Includes options to purchase 73,1741 shares of Common Stock (representing the portion of an option to purchase a total of 227,426 shares of Common Stock that is currently exercisable or will become exercisable within 60 days of this Registration Statement). Dr. Riddle is our Vice President, Medical Director.

(16) Includes options to purchase 49,844 shares of Common Stock (representing the portion of an option to purchase a total of 158,254 shares of Common Stock that is currently exercisable or will become exercisable within 60 days of this report). Ms. Cook is our Vice President, Policy and Government Affairs.

(17) Includes options to purchase 369 shares of Common Stock (representing the portion of an option to purchase a total of 1,133 shares of Common Stock that is currently exercisable or will become exercisable within 60 days of this Registration Statement).

(18) MDS Capital USA (GP) Inc. is the General Partner of MDS Life Sciences Technology Fund USA, L.P. (“LST-US”) and as such has voting and investment control over LST-US’s securities. Lumira Capital Corp. and its wholly-owned subsidiary, Lumira Capital Management Corp., provide services to LST-US. MDS Capital USA (GP) Inc., Lumira Capital Corp., and Lumira Capital Management Corp. disclaim beneficial ownership of these securities except to the extent of their pecuniary interest therein, if any.

(19) Includes options to purchase 108,918 shares of Common Stock (representing the portion of an option to purchase a total of 306,167 shares of Common Stock that is currently exercisable or will become exercisable within 60 days of this Registration Statement) and 814 shares issuable upon conversion of Convertible Notes in the principal amount of $8,142.11. Mr. Richman is our Senior Vice President, Business Development and Strategic Planning.

(20) Consists of 820 shares of Common Stock issuable upon conversion of Convertible Notes in the principal amount of $8,209.04.

(21) Consists of 205,186 shares of Common Stock held by Riverview Group LLC, a Delaware limited liability company ("Riverview"). It should be noted that (1) Riverview also holds 542,894 options to purchase Common Stock and (2) an affiliate of Riverview, Millenco LLC, a Delaware limited liability company which is a broker-dealer and a member of the American

Stock Exchange and the NASDAQ (formerly Millenco, L.P., a Delaware limited partnership) ("Millenco") beneficially owns 934,126 shares of Common Stock and holds 36,810 warrants to purchase the Common Stock of the Company. The options held by Riverview are not exercisable until July 2008; and the warrants held by Millenco are not currently exercisable by virtue of a letter agreement dated August 2, 2007, between the Company and Millennium Management (as amended), which prevents such warrants from being exercised to the extent that such exercise would result in the Reporting Persons beneficially owning in excess of 4.99% of the then outstanding Common Stock of the Company. Accordingly, neither Riverview nor Millenco beneficially owns the shares underlying their respective options or warrants to purchase Common Stock.

Millennium Management LLC , a Delaware limited liability company ("Millennium Management"), is the manager of Millenco and the general partner of Integrated Holding Group LP, a Delaware limited partnership ("Integrated Holding Group") which is the managing member of Riverview, and consequently may be deemed to have voting control and investment discretion over securities owned by Millenco and Riverview. Israel A. Englander is the managing member of Millennium Management. As a result, Mr. Englander may be deemed to be the beneficial owner of any shares deemed to be beneficially owned by Millennium Management. Integrated Holding Group is a non-managing member of Millenco. As a non-managing member, Integrated Holding Group has no voting control or investment discretion over Millenco or its securities positions. As sole member of Riverview, Integrated Holding may be deemed to have voting control and investment discretion over securities owned by Riverview To the extent permissible pursuant to applicable laws, each of Integrated Holding Group, Millennium Management and Mr. Englander disclaim any beneficial ownership of the shares owned by Riverview and Millenco, as the case may be. The information in this table with respect to Riverview, Integrated Holding Group, Millenium Management and Mr. Englander is based on information filed by Riverview, Integrated Holding Group, Millenium Management and/or Mr. Englander on Schedule 13D and Form 4 filed with the SEC on August, 6, 2007 and August 13, 2007, respectively, and as otherwise provided by them.

(22) Consists of 1,076,594 shares of Common Stock held by Steel Partners II, L.P., a Delaware limited partnership ("Steel Partners II"). Steel Partners II Master Fund L.P. ("Steel Master") is the sole limited partner of Steel Partners II. Steel Partners II GP LLC ("Steel GP LLC") is the general partner of Steel Partners II and Steel Master. Steel Partners LLC ("Partners LLC") is the investment manager of Steel Partners II and Steel Master. Warren G. Lichtenstein is the manager of Partners LLC and the managing member of Steel GP LLC. By virtue of these relationships, each of Steel Master, Steel GP LLC, Partners LLC and Mr. Lichtenstein may be deemed to beneficially own the shares held by Steel Partners II. Each of Steel Master, Steel GP LLC, Partners LLC and Mr. Lichtenstein disclaims beneficial ownership of the shares owned by Steel Partners II except to the extent of their respective pecuniary interests therein. The information in this table with respect to Steel Partners II, Steel Master, Steel GP LLC, Partners LLC and Mr. Lichtenstein is based on information provided by them.

(23) Consists of 745,032 shares of Common Stock held in the aggregate by Hummingbird Microcap Value Fund, LP ("Hummingbird Microcap"), Hummingbird Value Fund, LP ("Hummingbird Value"), and Hummingbird SPAC Partners, LP ("Hummingbird SPAC" and together with Hummingbird Microcap and Hummingbird Value, the "Hummingbird Funds"). As the general partner of each of the Hummingbird Funds, Hummingbird Capital, LLC ("Hummingbird Capital") may be deemed to beneficially own the shares held by the Hummingbird Funds. As the investment manager to each of the Hummingbird Funds, Hummingbird Management, LLC ("Hummingbird Management") may be deemed to beneficially own the shares held by the Hummingbird Funds. As the managing member of each of Hummingbird Capital and Hummingbird Management, Paul D. Sonkin may be deemed to beneficially own all shares held by the Hummingbird Funds. Hummingbird Capital, Hummingbird Management and Mr. Sonkin disclaim beneficial ownership of the shares held by the Hummingbird Funds except to the extent of their respective pecuniary interest therein.

(24) Basso Capital Management, L.P. ("Basso") is the Investment Manager to Basso Multi-Strategy Holding Fund Ltd. ("Fund"). Howard Fischer is a managing member of Basso GP LLC, the General Partner of Basso. Mr. Fischer has ultimate responsibility for trading with respect to the Fund.

(25) Basso Capital Management, L.P. ("Basso") is the Investment Manager to Basso Fund Ltd. ("Fund"). Howard Fischer is a managing member of Basso GP LLC, the General Partner of Basso. Mr. Fischer has ultimate responsibility for trading with respect to the Fund.

(26) Includes 14,537 shares of Common Stock issuable upon exercise of warrants to our former landlord, Chesapeake Innovation Center LLC ("CIC"), as payment of rent owed by us for leasing office space in the Chesapeake Innovation Center, an incubator facility co-sponsored by the State of Maryland and the National Security Agency. On August 25, 2003, we issued to CIC warrants to purchase an aggregate of 263,296 shares of Former PharmAthene common stock at an exercise price of $0.01 per share which as a consequence of the Merger converted into 14,537 shares of our Common Stock, including 350 shares of the Adjustment, at an exercise price of $0.20 per share.

(27) Includes 50,389 shares of Common Stock issuable upon exercise of warrants with a fixed exercise price of $4.06 per share assumed by us under the Merger Agreement and issued to Silicon Valley Bank pursuant to the Credit Facility.

(28) Includes 50,389 shares of Common Stock issuable upon exercise of warrants with a fixed exercise price of $4.06 per share assumed by us under the Merger Agreement and issued to Oxford Finance Corporation pursuant to the Credit Facility.

(29) Consists of 5,320 shares of Common Stock issuable upon conversion of Convertible Notes in the principal amount of $53,204.86.

(30) Includes 141,960 shares of Common Stock issuable upon exercise of warrants with a fixed exercise price of $6.00 per share and options to purchase 7,500 shares of Common Stock (representing the portion of an option to purchase a total of 15,000 shares of

Common Stock that is currently exercisable or will become exercisable within 60 days of this Registration Statement). Mr. Pappajohn is the Chairman of our Board of Directors.

(31) Includes 141,960 shares of Common Stock issuable upon exercise of warrants with a fixed exercise price of $6.00 per share and options to purchase 7,500 shares of Common Stock (representing the portion of an option to purchase a total of 15,000 shares of Common Stock that is currently exercisable or will become exercisable within 60 days of this Registration Statement).

(32) Includes 70,980 shares of Common Stock issuable upon exercise of warrants with a fixed exercise price of $6.00 per share.

(33) Includes 12,000 shares of Common Stock issuable upon exercise of warrants with a fixed exercise price of $6.00 per share.

PLAN OF DISTRIBUTION

The selling stockholders and any of their pledgees, donees, transferees, assignees or other successors-in-interest may, from time to time, sell any or all of the shares of Common Stock offered hereby on any stock exchange, market or trading facility on which the shares are traded or in private transactions. Our Common Stock currently trades on the American Stock Exchange. Any sales by the selling stockholders may be at fixed or negotiated prices. The selling stockholders 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;
- short sales;
- through the writing or settlement of options or other hedging transactions, whether through options exchanged 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 also sell shares under Rule 144 under the Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholders may arrange for other broker-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. The selling stockholders do not expect these commissions and discounts to exceed what is customary in the types of transactions involved.

The selling stockholders may from time to time pledge or grant security interests in their shares of our Common Stock 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.

In addition, the selling stockholders may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. In connection with those derivatives, the third parties may sell securities covered by this prospectus and any applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged or loaned by the selling stockholders to settle those sales or to close out any related open borrowings of stock, and may use securities received from the selling stockholders in settlement of those derivatives to close out any related open

borrowings of stock. The third party in such sale transactions may be an underwriter and, if so, will be identified in the applicable prospectus supplement or post-effective amendment.

The selling stockholders also may transfer their shares of our Common Stock in other circumstances, in which case the pledgees, donees, transferees, assignees or other successors-in-interest will be the “selling stockholders” for purposes of this prospectus.

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.

We are required to pay all fees and expenses incident to the registration of the shares.

We will not receive any proceeds from sales of any shares by the selling stockholders.

DESCRIPTION OF SECURITIES TO BE REGISTERED

The description of the Company's securities is set forth in the Definitive Proxy Statement filed with the SEC on July 16, 2007, on page 159 under the caption "Description of Securities" and is incorporated herein by reference.

LEGAL MATTERS

McCarter & English, LLP, Newark, New Jersey, will pass upon the validity of the Common Stock offered pursuant to this prospectus.

EXPERTS

The consolidated financial statements of PharmAthene, Inc. and subsidiaries for the year ended December 31, 2006 appearing in our Definitive Proxy Statement filed July 16, 2007 and incorporated by reference into this prospectus, have been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report included therein. Such consolidated financial statements are incorporated by reference into this prospectus in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

In addition, certain of the financial statements incorporated by reference in this prospectus have been audited by LWBJ, LLP, independent registered public accounting firm, to the extent and for the period set forth in their report. The financial statements and the report of LWBJ, LLP are included in reliance upon their report given upon the authority of LWBJ, LLP as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational reporting requirements of the Exchange Act and file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any materials we file with the SEC at the SEC's Public Reference Room located at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. You may also access filed documents at the SEC's website at www.sec.gov.

INCORPORATION BY REFERENCE

We are incorporating by reference important business and financial information about us that we file with the SEC. Any information that we incorporate by reference is considered part of this prospectus. Information that we file with the SEC at a later date automatically adds to, updates or supersedes this information.

We incorporate by reference the following documents we have filed, or may file, with the SEC:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2006;
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2007 and September 30, 2007;

- our Current Reports on Form 8-K filed with the SEC on September 24, 2007 and August 9, 2007, which report the Merger and include our financial statements for the fiscal year ended December 31, 2006 and for the period ended June 30, 2007;
- our Definitive Proxy Statement filed with the SEC on July 16, 2007, including any amendments or supplements filed for the purpose of updating same;
- all documents filed by us with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus and before the termination of this offering; and
- the description of our Common Stock contained in our registration statement on Form 8-A filed with the SEC on July 27, 2005, including any amendments or reports filed for the purpose of updating such description, including the description of the Company's securities set forth in the Definitive Proxy Statement filed with the SEC on July 16, 2007, on page 159 under the caption "Description of Securities."

To the extent that any information contained in any Current Report on Form 8-K, or any exhibit thereto, is furnished to, rather than filed with, the SEC, such information or exhibit is specifically not incorporated by reference in this prospectus.

We make available free of charge through our website at www.pharmathene.com our press releases and all of the documents that we are required to file electronically with the SEC, including all amendments thereto, as soon as reasonably practical after they are electronically filed with, or furnished to, the SEC. Our website also contains our Code of Ethics. The information on our website is not part of nor incorporated by reference into this prospectus. In addition, we will provide, without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request of such person, a copy of any or all of the documents incorporated by reference in this prospectus other than exhibits, unless such exhibits specifically are incorporated by reference into such documents or this prospectus. Requests for such documents should be addressed in writing or by telephone to: PharmAthene, Inc., One Park Place, Suite 450, Annapolis, MD 21401, (410) 269-2600.