

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 10-K

(Mark One)

Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the fiscal year ended December 31, 2014

Transition Report under Section 13 or 15(d) of the Securities Exchange Act of 1934

For the transition period from to

Commission File Number: 001-32587

PHARMATHENE, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

20-2726770

(I.R.S. Employer Identification No.)

One Park Place, Suite 450, Annapolis, MD

(Address of principal executive offices)

21401

(Zip Code)

Registrant's telephone number, including area code: (410) 269-2600

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class:

Common Stock, par value \$0.0001 per share

Name of Each Exchange on Which Registered:

NYSE MKT

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data file required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Accelerated Filer

Non-Accelerated Filer

Smaller Reporting Company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes  No

The aggregate market value of voting and non-voting common equity held by non-affiliates of the registrant was approximately \$56.0 million based upon the closing price of the common equity on the NYSE MKT on the last business day of the registrant's most recently completed second fiscal quarter (June 30, 2014). In determining this amount, the registrant has assumed solely for this purpose that all of its directors, executive officers and persons beneficially owning 10% or more of the outstanding shares of common stock of the registrant may be considered to be affiliates. This assumption shall not be deemed conclusive as to affiliate status for this or any other purpose.

The number of shares of the registrant's Common Stock, par value \$0.0001 per share, outstanding as of March 3, 2015 was 63,632,903.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement for its 2015 Annual Meeting of Stockholders, or Annual Report on Form 10-K/A for the fiscal year ended December 31, 2014, to be filed on or before April 30, 2015, are incorporated by reference into Part III of this Annual Report.

PHARMATHENE, INC.

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With respect to this discussion, the terms “we,” “us,” “our,” “PharmAthene” and the “Company” refer to PharmAthene, Inc., a Delaware corporation and its wholly-owned subsidiaries.

### Special Note Regarding Forward-Looking Statements

This annual report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. This information may involve known and unknown risks, uncertainties and other factors that are difficult to predict and may cause our actual results, performance or achievements to be materially different from future results, performance or achievements expressed or implied by any forward-looking statements. These risks, uncertainties and other factors include, but are not limited to, risks associated with the following:

- our interest in the judgment relating to SIGA Technology, Inc.’s Tecovirimat, also known as ST-246<sup>®</sup> (formerly referred to as “Arestvyr<sup>™</sup>” and referred to by SIGA in its recent SEC filings as “Tecovirimat”), including the risk that we will not be able to collect any amounts related thereto,
- our continuing ability to recognize cost reductions,
- the reliability of the results of the studies relating to human safety and possible adverse effects resulting from the administration of our product candidates,
- funding delays, reductions in or elimination of U.S. Government funding and/or non-renewal of expiring funding under our September 2014 contract with NIAID after we receive funding of approximately \$5.2 million over the base period (if all technical milestones are met),
- our common stock,
- the GE Loan Agreement,
- our net operating loss carryforwards, or NOLs,
- delays caused by third parties challenging government contracts awarded to us,
- unforeseen safety and efficacy issues,
- our realignment plan,
- accomplishing any future strategic partnerships or business combinations,
- continuing funding requirements and dilution relating thereto,
- our ability to continue to satisfy the listing requirements of the NYSE MKT,

as well as risks detailed under the caption “Risk Factors” in this annual report on Form 10-K and in our other reports filed with the U.S. Securities and Exchange Commission, or the SEC, from time to time hereafter.

In particular, in its August 2014 decision, the Delaware Court of Chancery awarded to us lump sum expectation damages for the value of lost profits for Tecovirimat. On January 15, 2015, the Delaware Court of Chancery issued its Final Order and Judgment, finding that we are entitled to receive a lump sum award of \$194.6 million, or the Total Judgment, comprised of (1) expectation damages of \$113.1 million for the value of the Company’s lost profits for Tecovirimat, plus (2) pre-judgment interest on that amount from 2006 and varying percentages of the Company’s reasonable attorneys’ and expert witness fees, totaling \$81.5 million. Under the Final Order and Judgment, PharmAthene is also entitled to post-judgment simple interest. PharmAthene’s entitlement to interest from and after SIGA’s bankruptcy filing may be negatively impacted by the Bankruptcy Code. SIGA has filed a notice of appeal with the Delaware Supreme Court in which it challenges various findings of the Court of Chancery and seeks to set aside the Final Order and Judgment, and we have filed a notice of cross-appeal.

As a result, the decision could be reversed, remanded or otherwise changed. There can be no assurances if and when we will receive any payments from SIGA as a result of the Judgment. SIGA has stated publicly that it does not currently have cash sufficient to satisfy the potential award. It is also uncertain whether SIGA will have such cash in the future. PharmAthene’s ability to collect the Judgment depends upon a number of factors, including SIGA’s financial and operational success, which is subject to a number of significant risks and uncertainties (certain of which are outlined in SIGA’s filings with the SEC), as to which we have limited knowledge and which we have no ability to control, mitigate or fully evaluate. For example, on December 24, 2014, SIGA announced that it expects to modify its contract with the Biomedical Advanced Research and Development Authority, or BARDA, to reflect an increase in the provisional dosage of Tecovirimat and extended delivery schedule, subject to approval by the Bankruptcy Court. Furthermore, because SIGA has filed for protection under the federal bankruptcy laws, we are automatically stayed from taking any enforcement action in the Delaware Court of Chancery. By agreement of the parties, and with the approval of the Bankruptcy Court, the automatic stay has been lifted for the sole purpose of allowing the Delaware Court of Chancery to enter a money judgment and to allow the parties to exercise their appellate rights. Our ability to collect a money judgment from SIGA remains subject to further proceedings in the Bankruptcy Court.

Moreover, at this point, future government funding to support the development of Valortim<sup>®</sup>, rBChE and liquid SparVax<sup>®</sup> is unlikely. Even if we received such funding, significant additional non-clinical animal studies, human clinical trials, and manufacturing development work remain to be completed for our product candidates. It is also uncertain whether any of our product candidates will be shown to be safe and effective and approved by regulatory authorities for use in humans.

Forward-looking statements describe management's current expectations regarding our future plans, strategies and objectives and are generally identifiable by use of the words "may," "will," "should," "could," "expect," "anticipate," "estimate," "believe," "intend," "project," "potential" or "plan" or the negative of these words or other variations on these words or comparable terminology. Such statements include, but are not limited to, statements relating to:

- anticipated results of pending litigation,
- potential payments under government contracts or grants,
- potential future government contracts or grant awards,
- potential regulatory approvals,
- future product advancements, and
- anticipated financial or operational results.

Forward-looking statements are based on assumptions that may be incorrect, and we cannot assure you that the projections included in the forward-looking statements will come to pass.

We have based the forward-looking statements included in this annual report on Form 10-K on information available to us on the date of this annual report, and we assume no obligation to update any such forward-looking statements, other than as required by law. Although we undertake no obligation to revise or update any forward-looking statements, whether as a result of new information, future events or otherwise, you are advised to consult any additional disclosures that we may make directly to you or through reports that we, in the future, may file with the SEC, including annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K.

All forward-looking statements included herein are expressly qualified in their entirety by the cautionary statements contained or referred to elsewhere in this annual report. Unless otherwise indicated, the information in this annual report is as of December 31, 2014.

## **PART I**

### **Item 1. Business.**

#### **Overview**

Since 2001, we have been a biodefense company engaged in the development of next generation medical counter measures against biological and chemical threats. During this time, we have devoted substantial effort and resources to the development of medical counter measures for the prevention and treatment of anthrax infection and the prevention of nerve agent poisoning. We have several biodefense candidates in our portfolio.

- Anthrax vaccines including SparVax<sup>®</sup>, a second generation liquid recombinant protective antigen (rPA) anthrax vaccine, and a next generation lyophilized anthrax vaccine containing rPA;

- rBChE (recombinant butyrylcholinesterase) bioscavenger, a medical counter measure for nerve agent poisoning by organophosphorous (OP) compounds, including nerve gases and pesticides; and
- Valortim<sup>®</sup>, a fully human monoclonal antibody for the prevention and treatment of anthrax infection.

## Realignment Plan

On March 9, 2015, our Board of Directors approved a plan to preserve and maximize, for the benefit of our stockholders, the value of any proceeds from the SIGA litigation and our existing biodefense assets. The plan eliminates approximately two-thirds of our workforce or twenty three employees and is aimed at the preservation of cash and cash equivalents sufficient to finance our continued operations through a period of time expected to extend beyond the adjudication of SIGA's appeal of the decision of the Delaware Chancery Court awarding us \$194.6 million plus post-judgment interest. We refer to the plan in this annual report on Form 10-K as the "Realignment Plan." Under the Realignment Plan, we intend to maintain sufficient resources and personnel so that we can seek partners, co-developers or acquirers for our biodefense programs and continue to execute under our government contract with NIAID.

As part of the Realignment Plan, our Board has determined to terminate Eric Richman as President and Chief Executive Officer, effective 11:59 pm on March 11, 2015, and Linda Chang as Chief Financial Officer, Treasurer and Secretary, effective April 30, 2015. Our Board also determined to terminate our executive officers Francesca Cook and Wayne Morges effective March 9, 2015. Mr. Richman will remain a member of our Board of Directors after March 11, 2015. John Gill, a member of our Board of Directors, will serve as President and Chief Executive Officer beginning March 12, 2015, and current Vice President and Controller Philip MacNeill will serve as Chief Financial Officer, Treasurer and Secretary following Ms. Chang's departure. The Board also appointed current Vice President, Corporate Development Jeffrey M. Jones, Ph.D. to serve as the Company's Chief Operating Officer effective March 12, 2015.

Messrs. Joel McCleary and Brian Markison are resigning from the Board effective 11:59 pm on March 11, 2015. Additional information on the Realignment Plan is contained in "Item 9.B. Other Information" and is incorporated by reference herein.

## Other Recent Developments

On September 9, 2014, we signed a contract with the National Institutes of Allergy and Infectious Diseases, or NIAID, for the development of a next generation lyophilized anthrax vaccine based on the Company's proprietary technology platform which contributes the rPA bulk drug substance that is used in the liquid SparVax<sup>®</sup> formulation. The contract is incrementally funded. Over the base period of the contract, we were awarded initial funding of approximately \$5.2 million, which includes a cost reimbursement component and a fixed fee component payable upon achievement of certain milestones. The contract has a total value of up to approximately \$28.1 million, if all technical milestones are met and all eight contract options are exercised by NIAID. NIAID may exercise the options in its sole discretion. If NIAID exercises all options, the contract would continue approximately five years. If NIAID does not exercise any options, the contract would expire by its terms on January 5, 2016.

On September 16, 2014, SIGA announced that it filed a voluntary petition for relief under Chapter 11 of the United States Bankruptcy Code in the U.S. Bankruptcy Court for the Southern District of New York. In connection therewith, SIGA filed with the Bankruptcy Court an affidavit indicating, among other things, that it expects to continue to perform under its contract with the Biomedical Advanced Research and Development Authority, or BARDA. SIGA's petition for bankruptcy initiated a process whereby its assets are protected from creditors, including PharmAthene.

On January 15, 2015, the Delaware Court of Chancery issued a Final Order and Judgment, finding that we are entitled to receive a lump sum award of \$194.6 million, or the Total Judgment, comprised of (1) expectation damages of \$113.1 million, for the value of the Company's lost profits for Tecovirimat, also known as ST-246<sup>®</sup> (formerly referred to as "Arestvyr<sup>™</sup>" and referred to by SIGA in its recent SEC filings as "Tecovirimat"), plus (2) pre-judgment interest on that amount from 2006 and varying percentages of the Company's reasonable attorneys' and expert witness fees, totaling \$81.5 million. Under the Final Order and Judgment, PharmAthene is also entitled to post-judgment simple interest. PharmAthene's entitlement to interest from and after SIGA's bankruptcy filing may be negatively impacted by the Bankruptcy Code. SIGA has filed a notice of appeal with the Delaware Supreme Court in which it challenges various findings of the Court of Chancery and seeks to set aside the Final Order and Judgment, and we have filed a notice of cross-appeal. As a result, the decision could be reversed, remanded or otherwise changed.

There can be no assurances if and when the Company will receive any payments from SIGA as a result of the Judgment. SIGA has stated publicly that it does not currently have cash sufficient to satisfy the award. It is also uncertain whether SIGA will have such cash in the future. PharmAthene's ability to collect the Judgment depends upon a number of factors, including SIGA's financial and operational success, which is subject to a number of significant risks and uncertainties (certain of which are outlined in SIGA's filings with the SEC), as to which we have limited knowledge and which we have no ability to control, mitigate or fully evaluate. For example, on December 24, 2014, SIGA announced that it expects to modify its contract with BARDA to reflect an increase in the provisional dosage of Tecovirimat and extended delivery schedule, subject to approval by the Bankruptcy Court. Furthermore, because SIGA has filed for protection under the federal bankruptcy laws, PharmAthene is automatically stayed from taking any enforcement action in the Delaware Court of Chancery. By agreement of the parties, and with the approval of the Bankruptcy Court, the automatic stay has been lifted for the sole purpose of allowing the Delaware Court of Chancery to enter a money judgment and to allow the parties to exercise their appellate rights. The Company's ability to collect a money judgment from SIGA remains subject to further proceedings in the Bankruptcy Court.

During the third quarter of 2014 we formed a strategic alliance with Nanotherapeutics, Inc., a company that has extensive manufacturing and formulation capabilities. Under the strategic alliance agreement, each company will contribute its specific expertise and resources with the objective of advancing biodefense products to be agreed to under individual project plans.

We were formed in April 2005 as Healthcare Acquisition Corp., a special purpose acquisition company. On August 3, 2005, Healthcare Acquisition Corp. consummated its initial public offering. On August 3, 2007, Healthcare Acquisition Corp. acquired all the outstanding equity of PharmAthene, Inc., then a privately held Delaware corporation engaged in the biodefense business, and changed its name from Healthcare Acquisition Corp. to PharmAthene, Inc. Our subsidiary PharmAthene Canada, Inc. was operated in support of the Protexia<sup>®</sup> contract with the U.S. Army Space and Missile Command issued to develop a nerve agent counter measure. In July 2012, we substantially liquidated our Canadian subsidiary, which we acquired in 2005. All assets in Canada have been disposed of. In March 2008, PharmAthene through PharmAthene UK Limited, acquired from Avecia the rights to develop SparVax<sup>®</sup>. In 2009, the contract was novated from PharmAthene UK Limited to PharmAthene, Inc.



Our executive offices are located at One Park Place, Suite 450, Annapolis, Maryland 21401 and our telephone number is 410-269-2600. Our common stock trades on the NYSE MKT (formerly NYSE Amex) under the symbol "PIP." We maintain a website at <http://www.PharmAthene.com>. The information contained on or connected to our website is expressly not incorporated by reference into this annual report. We make available for download free of charge through our website this annual report on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after we have electronically filed, or furnished, them to the SEC.

## **Biodefense Industry**

### ***Market Overview:***

The worldwide biodefense market can generally be divided into three segments: U.S. civilian, U.S. military, and non-U.S. markets. U.S. Government funding represents the vast majority of the worldwide market.

### ***U.S. Civilian Market and Project BioShield:***

The U.S. civilian market includes funds to protect the U.S. population from biowarfare agents and has been largely funded by the Project BioShield Act of 2004. Project BioShield, established under the Project BioShield Act of 2004 and the U.S. Government's largest biodefense initiative, is focused on acquiring products with low technological risk that will be available for purchase in the near term. The U.S. Government has identified the following threats as critical biodefense priorities: anthrax, smallpox, botulinum toxin, radiation, and nerve agent exposure. To evaluate and select the best products for these threats, the U.S. Department of Health and Human Services, or DHHS, typically issues Requests for Information followed by Requests for Proposals, or RFPs. RFPs detail product and procurement requirements including treatment types, numbers of doses and delivery timeframes. To qualify for Project BioShield funding, products must demonstrate product efficacy in an animal model and complete advanced development activities, and companies must show that they can provide sufficient manufacturing capability. Twelve medical counter measures have been procured for stockpile under project BioShield since 2004, and BARDA projects that an additional twelve counter measures will be delivered by 2018.

Project BioShield provided \$5.6 billion in funding for medical counter measures through the Special Reserve Fund, or SRF, over ten fiscal years (fiscal year 2004 through fiscal year 2013). As the original authorization expired at the end of fiscal year 2013, the Pandemic and All-Hazards Preparedness Reauthorization Act, or PAHPRA, was signed into law in March 2013. The PAHPRA authorized \$2.8 billion in funding for the SRF for fiscal years 2014-2018. These funds are for the procurement of medical counter measures. PAHPRA also authorized \$415 million in funding to BARDA for advanced development activities. However, actual funding for BARDA is dependent on annual Congressional appropriations and Congress is not obligated to appropriate the authorized amount. The fiscal year 2015 appropriation for BARDA advanced development is \$473 million. The fiscal year 2015 appropriation for the SRF is \$255 million.

### ***U.S. Military Market:***

The Department of Defense, or DoD, is responsible for the research, development, testing and evaluation, or RDT&E, and procurement of medical counter measures within the DoD. These efforts focus on providing chemical and biological warfare protection for active duty military personnel, their dependents, and civilians who are on active duty. The Omnibus Appropriations Act for fiscal year 2014 included a total of \$1.1 billion in funding for Chemical and Biological RDT&E within the DoD.

### ***Non-U.S. Markets:***

Non-U.S. markets address protection against biowarfare agents for both civilians and military personnel in foreign countries. We anticipate that foreign countries will procure biodefense products as they are developed and validated by procurement by the U.S. Government.

## ***Anthrax***

The three general modes of infection by *Bacillus anthracis* or *B. anthracis*, the bacterium which causes anthrax infection, are by inhalation, ingestion or skin contact with anthrax spores. Inhalational anthrax is the most lethal form of infection and occurs when anthrax spores become airborne and enter a person's body through the lungs. Inhalational anthrax is almost always fatal if left untreated; the mortality rate in patients treated aggressively with antibiotics and supportive care is approximately 50%. Persons infected by *B. anthracis* that is ingested will suffer from gastrointestinal anthrax; those whose skin comes into contact with anthrax will suffer from cutaneous anthrax. Gastrointestinal anthrax has a mortality rate of more than 40% if left untreated. Cutaneous anthrax generally causes skin infections within a week or two after exposure. Cutaneous anthrax is the least fatal. Without treatment, approximately 20% of all skin infection cases are fatal. Treated cutaneous anthrax is rarely fatal.

The DoD estimates that up to ten countries may possess anthrax weapons and an undetermined number of individuals and terrorist groups could have access to anthrax. Anthrax is an effective bioterrorism agent because the spores are stable for extended periods of time (i.e. years), can be milled to a fine powder, and can be widely dispersed with readily available instruments and machinery. The U.S. Congressional Office of Technology Assessment in 1993 analyzed the potential scope of an anthrax attack, calculating that there would be between 130,000 and three million deaths following the release of 100 kilograms of anthrax in a highly populated area.

In light of the limited effectiveness of current antibiotics and supportive care, we believe that currently available treatments for inhalational anthrax — antibiotics and vaccines — are suboptimal. Following exposure, but prior to the onset of symptoms, antibiotics like ciprofloxacin, doxycycline or penicillin can be used as post-exposure prophylaxis with the goal of preventing progression of the disease with a recommended antibiotic course of treatment of 60 days, sometimes in combination with the administration of an existing anthrax vaccine. We believe that both compliance and side effects are problematic for anyone asked to take antibiotics for such an extended period of time. Furthermore, antibiotic resistance, whether naturally occurring or genetically engineered, is a concern.

### ***Chemical Weapons and Nerve Agents***

Chemical weapons use the toxic properties of chemical substances to produce physiological effects on an enemy military or civilian target. Classic chemical weapons, such as chlorine and phosgene, were employed during World War I and consisted primarily of commercial chemicals used as choking and blood agents, to cause respiratory damage and asphyxiation. Organophosphorous agents (nerve agents), one of the most lethal forms of chemical weapons, were developed in the 1930s in the years leading up to World War II. As recently as 2013 the United Nations concluded that chemical weapons were used in the on-going civil war in Syria.

Nerve agents function by binding to acetylcholinesterase, an enzyme that normally causes termination of the activity of the neurotransmitter acetylcholine. Nerve agents block the activity of acetylcholinesterase, allowing the activity of acetylcholine to continue unchecked. As a result, nerve impulses are continually transmitted, causing muscle contractions that do not stop. This effect is referred to as a "cholinergic crisis" and results in a loss of muscle control, respiratory failure, paralysis and convulsions. Nerve agent exposure that does not cause death after a short period can lead to permanent brain damage.

There is currently only one FDA-approved pre-treatment for nerve agents, pyridostigmine bromide, or PB. PB is only approved for the pre-treatment of exposure to the nerve agent soman. It confers no protection on its own but enhances the protection conferred by post-exposure treatment. The standard of care for post-exposure treatment involves repeated doses of a cocktail of drugs including atropine, reactivators including the oxime 2-PAM, and anti-convulsants. However, this type of treatment acts primarily on the symptoms of nerve agents, not their underlying cause. We believe available pre-and post-treatment options are inadequate and that there is a need for more efficacious counter measures, especially as evidence mounts that modified, more toxic forms of nerve agents may be used in future attacks.



## Product Candidates

### **SparVax<sup>®</sup>: Recombinant Protective Antigen (rPA)-based Anthrax Vaccine (Liquid)**

SparVax<sup>®</sup> is a second generation, liquid rPA anthrax vaccine designed to protect against inhalational anthrax, the most lethal form of *B. anthracis* infection in humans. The vaccine has been shown to induce anti-Protective Antigen, or PA, antibodies in clinical trials in healthy human volunteers and in animal models of inhalational anthrax. These antibodies are believed to function by targeting PA, a protein component necessary for the transportation of bacterial toxins into the cell and the subsequent toxic cascade that leads to morbidity and mortality. Vaccination with SparVax<sup>®</sup> can generate significant titers of antibodies and up to 100% protection in rabbits and non-human primates that are subsequently exposed to lethal inhalation doses of anthrax spores. One Phase 1 and two Phase 2 clinical trials have been completed involving approximately 770 individuals. Data from these trials demonstrated that SparVax<sup>®</sup> is generally well tolerated, and immunogenic.

Future studies are necessary to confirm the dose and schedule of SparVax<sup>®</sup> that induces antibody levels in humans which are comparable to those shown to be protective in the animal models, demonstrate the acceptability of using SparVax<sup>®</sup> in conjunction with antibiotics, and confirm the safety of SparVax<sup>®</sup> in a sufficient number of human subjects (as required by the FDA). In August 2012, we received notification from the FDA that our SparVax<sup>®</sup> rPA anthrax vaccine program was placed on clinical hold prior to initiating any patient dosing in a planned Phase 2 clinical trial. In December 2013, we received notification from the FDA that our SparVax<sup>®</sup> program was again placed on clinical hold prior to initiating any patient dosing in a planned Phase 2 clinical trial because of concerns regarding the age of the clinical lot and the potential for a loss of potency before the vaccinations could be completed. In September 2014, we completed the in-life portion of a non-clinical rabbit study which showed SparVax<sup>®</sup> to be beneficial in preventing anthrax infection in animals exposed to anthrax spores. This study was designed to evaluate the efficacy of SparVax<sup>®</sup> compared to BioThrax<sup>®</sup> in animals exposed to a lethal dose of anthrax. The non-clinical rabbit efficacy study of inhalational anthrax used a clinical cGMP lot of SparVax<sup>®</sup> FDP that was 22 months old at the initial dose. The dose was repeated 28 days later using the same lot. Rabbits were vaccinated with an estimated human equivalent dose of SparVax<sup>®</sup> and BioThrax<sup>®</sup> as a comparator and the data showed 100% survival for both products. Additional data from future SparVax<sup>®</sup> clinical trials and non-clinical animal studies would be required to establish efficacy in humans. The FDA requested that we produce a new cGMP lot of FDP, provide the lot release data to the FDA, and provide stability data to the FDA on the BDS we use to produce the final drug product lot. The FDA has also requested that we continue to collect stability data on the previously manufactured engineering and cGMP lots. We manufactured a new cGMP lot of SparVax<sup>®</sup> FDP in November 2014 and it is currently undergoing release testing. SparVax<sup>®</sup> remains on clinical hold.

Funding for the development of SparVax<sup>®</sup> has to date occurred under two contracts from the National Institutes of Health, or NIH, originally entered into in 2002 and 2003 which, not including the modifications discussed below, provided for aggregate funding of up to approximately \$128 million, all of which has been received by either PharmAthene or Avecia Biologics Limited, or Avecia.

In April 2009, the U.S. Government transferred the NIH contract to BARDA and on February 22, 2010, BARDA funded approximately \$61 million on a cost-plus-fee basis, assuming that all milestones are achieved. The contract was subsequently modified to extend the period of performance through February 28, 2015 and BARDA made available an additional \$8 million to help support clinical and non-clinical work on SparVax<sup>®</sup>. However, on April 4, 2014, we received notification from BARDA, advising us of its decision to de-scope the SparVax<sup>®</sup> contract through a partial termination for convenience. BARDA subsequently provided guidance authorizing the completion of six discrete activities under the contract. All other activities were de-scoped, including the proposed Phase 2 clinical trial. The contract ended on February 28, 2015.

In 2014, BARDA audited indirect costs or rates charged by us on the SparVax<sup>®</sup> contract for the years 2008 through 2013. While we do not currently believe the results of this audit will have an adverse effect on the Company, we cannot provide assurances that it will not have such an effect. PharmAthene has billed and recognized revenue using the provisional rates as defined in the contract. While the rates audited by BARDA, which reflect the actual costs incurred by us, have been higher, we have no assurance on either the amount of additional funds we may receive as a result of these higher rates or the amount of time it may take to recover these funds. The amount of any such funds is determined as a result of negotiations with BARDA.

We do not expect that we will receive additional funding from BARDA for the further development of SparVax<sup>®</sup> as a liquid product. Therefore, we anticipate that revenues for this program in 2015 will be significantly less than in 2014. We are continuing to explore different options for the future of the SparVax<sup>®</sup> program, including self-funding and identifying strategic partners.

### ***Next Generation Anthrax Vaccine: Recombinant Protective Antigen (Lyophilized)***

Development studies we previously performed under an NIH challenge grant demonstrated that rPA which was freeze-dried, or lyophilized, exhibited enhanced stability and immunogenicity as compared to the liquid formulation. Based on these and other data, we submitted a proposal to NIAID in late 2013 to develop a lyophilized formulation of an rPA vaccine. On September 9, 2014, we signed a contract with NIAID for the development of this next generation lyophilized anthrax vaccine based on the Company's proprietary technology platform which contributes the rPA bulk drug substance that is used in the liquid SparVax<sup>®</sup> formulation. The contract is incrementally funded. Under this agreement, in 2014 we recognized \$0.6 million in revenue. Over the base period of the contract, we were awarded initial funding of approximately \$5.2 million, which includes a cost reimbursement component and a fixed fee component payable upon achievement of certain milestones. The contract has a total value of up to approximately \$28.1 million, if all technical milestones are met and all eight contract options are exercised by NIAID. NIAID may exercise the options in its sole discretion. If NIAID exercises all options, the contract would continue approximately five years. If NIAID does not exercise any options, the contract would expire by its terms on January 5, 2016.

### ***Recombinant Human Butyrylcholinesterase Nerve Agent Counter Measure***

In 2006, we entered into a contract with the DoD to develop our Protexia<sup>®</sup> medical counter measure for chemical nerve agent exposure to protect the warfighter from physiological damage. This program utilized the recombinant enzyme butyrylcholinesterase, or rBChE, a recombinant form of a naturally occurring bioscavenger, as its active ingredient. This first generation program for producing rBChE utilized transgenic goats to produce the enzyme in their milk. This contract expired on December 31, 2010, and we shut down its Protexia<sup>®</sup> related operations and sold its production facilities in December 2011.

We have also been working on a second generation approach which utilizes a mammalian-cell-based expression system (i.e., the PER.C6<sup>®</sup> human cell line) for the production of rBChE. In August 2011, the DoD awarded us a fixed price contract for up to approximately \$5.7 million to support on-going research into the production of rBChE using this mammalian-cell culture-based advanced expression system. The period of performance for this contract ended on September 8, 2014. We do not foresee any additional funding for this program and expect that revenues for this program in the future will be minimal. We are continuing to explore different options for the future of the rBChE program, including self-funding and identifying strategic partners.

### ***Valortim<sup>®</sup>: Anthrax Monoclonal Antibody***

Valortim<sup>®</sup> is a fully human monoclonal antibody designed to protect against and treat human inhalational anthrax, as both post-exposure prophylaxis (i.e., before symptoms manifest) and post-exposure therapy (i.e., once symptoms are evident). Valortim<sup>®</sup> utilizes a novel mechanism of action similar to the natural immune response. Valortim<sup>®</sup> is designed to bind to PA and protect the cells from damage by the anthrax toxins. In non-clinical studies, animals were protected against this fatal disease when Valortim<sup>®</sup> was administered following a lethal aerosol challenge of anthrax spores, demonstrating that Valortim<sup>®</sup> induces recovery and survival in animals exposed to inhalational anthrax.

We have been developing Valortim<sup>®</sup> in collaboration with Bristol-Myers Squibb, or BMS, pursuant to a collaboration agreement entered into in November 2004. Under the terms of the collaboration agreement, we and BMS will share any operating profits according to a formula that establishes our share of any profits at between 20% and 60%, with the final split largely dependent on the amount of funding provided by us prior to sale of product to the U.S. Government. Prior to distribution of operating profits, each party is entitled to reimbursement of research and development expenses incurred that were not otherwise covered by government funding. Valortim<sup>®</sup> has received Fast Track designation from the FDA as well as orphan drug status.

Between 2006 and 2012, we received funding from the DoD and NIAD under several contracts to support the development of Valortim<sup>®</sup>, all of which contracts have ended. In September 2013, under Solicitation RFP-12-100-SOL-00026, BARDA issued to us an Indefinite-Delivery, Indefinite-Quantity (ID/IQ) contract for the acquisition of anthrax antitoxins. Later that same month we entered into a work order under that contract pursuant to which we agreed to supply BARDA a portion of a master cell bank for Valortim<sup>®</sup> for approximately \$1.0 million. Delivery under the contract occurred in 2014. We do not foresee any additional funding for this program and expect that revenues from this program in the future will be minimal.

## **SIGA Litigation**

In May 2013, the Delaware Supreme Court affirmed a September 2011 ruling of the Delaware Court of Chancery that SIGA had breached certain contractual obligations to us.

On August 8, 2014, the Delaware Court of Chancery issued a Memorandum Opinion and Order, or August 2014 Order, finding that we are entitled to receive lump sum expectation damages for the value of the Company's lost profits for Tecovirimat. In addition, the Delaware Court of Chancery found that the Company is entitled to receive pre-judgment interest and varying percentages of the Company's reasonable attorneys' and expert witness fees. On October 17, 2014, the Company and SIGA each filed opinions of our respective financial experts and Draft Orders and Judgments in accordance with the instructions of the August 2014 Order.

On September 16, 2014, SIGA announced that it filed a voluntary petition for relief under Chapter 11 of the United States Bankruptcy Code in the U.S. Bankruptcy Court for the Southern District of New York. In connection therewith, SIGA filed with the Bankruptcy Court an affidavit indicating, among other things, that it expects to continue to perform under its contract with BARDA. SIGA's petition for bankruptcy initiated a process whereby its assets are protected from creditors, including PharmAthene.

On January 15, 2015, the Delaware Court of Chancery issued a Final Order and Judgment, finding that we are entitled to receive a lump sum award of \$194.6 million, or the Total Judgment, comprised of (1) expectation damages of \$113.1 million for the value of the Company's lost profits for Tecovirimat, also known as ST-246<sup>®</sup> (formerly referred to as "Arestvyr<sup>™</sup>" and referred to by SIGA in its recent SEC filings as "Tecovirimat"), plus (2) pre-judgment interest on that amount from 2006 and varying percentages of the Company's reasonable attorneys' and expert witness fees totaling \$81.5 million. Under the Final Order and Judgment, PharmAthene is also entitled to post-judgment simple interest. PharmAthene's entitlement to interest from and after SIGA's bankruptcy filing may be negatively impacted by the Bankruptcy Code. SIGA has filed a notice of appeal with the Delaware Supreme Court in which it challenges various findings of the Court of Chancery and seeks to set aside the Final Order and Judgment, and we have filed a notice of cross-appeal. As a result, the decision could be reversed, remanded or otherwise changed.

There can be no assurances if and when the Company will receive any payments from SIGA as a result of the Judgment. SIGA has stated publicly that it does not currently have cash sufficient to satisfy the potential award. It is also uncertain whether SIGA will have such cash in the future. PharmAthene's ability to collect the Judgment depends upon a number of factors, including SIGA's financial and operational success, which is subject to a number of significant risks and uncertainties (certain of which are outlined in SIGA's filings with the SEC), as to which we have limited knowledge and which we have no ability to control, mitigate or fully evaluate. For example, on December 24, 2014, SIGA announced that it expects to modify its contract with BARDA to reflect an increase in the provisional dosage of Tecovirimat and extended delivery schedule, subject to approval by the Bankruptcy Court. Furthermore, because SIGA has filed for protection under the federal bankruptcy laws, PharmAthene is automatically stayed from taking any enforcement action in the Delaware Court of Chancery. By agreement of the parties, and with the approval of the Bankruptcy Court, the automatic stay has been lifted for the sole purpose of allowing the Delaware Court of Chancery to enter a money judgment and to allow the parties to exercise their appellate rights. The Company's ability to collect a money judgment from SIGA remains subject to further proceedings in the Bankruptcy Court.

For a description of risk related to this litigation, see the "Risk Factors" section of this annual report below.

## **U.S. Government Regulation of Biological Products**

### **General**

Regulation by governmental authorities in the United States and other countries will have a significant impact on our research, product development, manufacturing and marketing of any biopharmaceutical products. The nature and the extent to which regulations apply to us will vary depending on the nature of any such products. Our potential biopharmaceutical products will require regulatory approval by governmental agencies prior to commercialization. The products we are developing are subject to federal regulation in the United States, principally by the Food and Drug Administration, or FDA, under the Public Health Service Act and Federal Food, Drug, and Cosmetic Act, or FFDC, and by state and local governments, as well as regulatory and other authorities in foreign governments that include rigorous preclinical and clinical testing and other approval procedures. Such regulations govern or influence, among other things, the research, development, testing, manufacture, safety and efficacy requirements, labeling, storage, recordkeeping, licensing, advertising, promotion, distribution and export of products, manufacturing and the manufacturing process. In many foreign countries, such regulations also govern the prices charged for products under their respective national social security systems and availability to consumers.

The Public Health Service Act classifies our current drug candidates which are produced using biological systems, as biological drug products, or Biologics. All drugs intended for human use, including Biologics, are subject to rigorous regulation by the FDA in the United States and similar regulatory bodies in other countries. The steps ordinarily required by the FDA before a biological drug product may be marketed in the United States are similar to steps required in most other countries and include, but are not limited to:

- completion of preclinical laboratory tests, preclinical animal testing and formulation studies;
- submission to the FDA of an Investigational New Drug Application, or IND, which must be in effect before clinical trials may commence;
- submission to the FDA of a Biologics License Application, or BLA that includes preclinical data, clinical trial data, product composition and formulation information, and manufacturing information;
- FDA review of the BLA;
- satisfactory completion of an FDA pre-approval inspection of the manufacturing facilities; and
- FDA approval of the BLA, including approval of all product labeling.

The research, development and approval process requires substantial time, effort and financial resources, and approvals may not be granted on a timely or commercially viable basis, if at all.

Preclinical testing includes laboratory evaluations to characterize the product's composition, impurities, stability, and mechanism of its biologic effect, as well as animal studies to assess the potential safety, purity and potency of each product. Preclinical safety tests must be conducted by laboratories that comply with FDA regulations regarding Good Laboratory Practices, or GLP, and the U.S. Department of Agriculture's Animal Welfare Act. Violations of these laws and regulations can, in some cases, lead to invalidation of the tests, requiring such tests to be repeated and delaying approval of the BLA. The results of the preclinical tests, together with manufacturing information and analytical data, are submitted to the FDA as part of an IND and are reviewed by the FDA before the commencement of human clinical trials. Unless the FDA objects to an IND by placing the study on clinical hold, the IND will go into effect 30 days following its receipt by the FDA. The FDA may authorize trials only on specified terms and may suspend clinical trials at any time on various grounds, including a finding that patients are being exposed to unacceptable health risks. If the FDA places a study on clinical hold, the sponsor must resolve all of the FDA's concerns and have the FDA lift the clinical hold, before the study may proceed. The IND application process may become extremely costly and substantially delay development of products. Similar restrictive requirements also apply in other countries. Additionally, positive results of preclinical tests will not necessarily indicate positive results in clinical trials.

Clinical trials involve the administration of the investigational product to humans under the supervision of qualified principal investigators. Our clinical trials must be conducted in accordance with Good Clinical Practice, or GCP, regulations under protocols submitted to the FDA as part of an IND. In addition, each clinical trial must be approved and conducted under the auspices of an institutional review board, or IRB, and requires the patients' informed consent. The IRB considers, among other things, ethical factors, the safety of human subjects, and the possibility of liability of the institutions conducting the trial. The IRB at each institution at which a clinical trial is being performed may suspend a clinical trial at any time for a variety of reasons, including a belief that the test subjects are being exposed to an unacceptable health risk. Since our products are being developed using funding from the U.S. Government, additional review by either the NIH's IRB or the DoD's IRB-equivalent may also be required. These reviews take place following approval by the independent IRB. As the sponsor, we can also suspend or terminate a clinical trial at any time.

Clinical trials are typically conducted in three sequential phases, Phases 1, 2, and 3, involving an increasing number of human subjects. These phases may sometimes overlap or be combined. Phase 1 trials are performed in a small number of healthy human subjects or subjects with the targeted condition, and involve testing for safety, dosage tolerance, absorption, distribution, metabolism and excretion or immunogenicity for vaccine products. Phase 2 studies, which may involve up to hundreds of subjects, seek to identify possible adverse effects and safety risks, preliminary information related to the efficacy of the product for specific targeted diseases, dosage tolerance, and optimal dosage. Finally, Phase 3 trials may involve up to thousands of individuals often at geographically dispersed clinical trial sites, and are intended to provide the documentation of effectiveness and important additional safety data required for licensing. Prior to commencing Phase 3 clinical trials many sponsors elect to meet with FDA officials to discuss the conduct and design of the proposed trial or trials.

In addition, federal law requires the listing, on a publicly-available website, of detailed information on clinical trials for investigational drugs. Some states have similar or supplemental clinical trial reporting laws.

In 2002, the FDA amended its requirements applicable to BLAs to permit the approval of certain Biologics that are intended to reduce or prevent serious or life-threatening conditions based on evidence of safety from trial in healthy subjects and effectiveness from appropriate animal studies when human efficacy studies are not ethical or feasible. These regulations, also known as the Animal Rule, and published in the Code of Federal Regulations (21 CFR 601 Subpart H), authorize the FDA to rely on evidence from animal studies to provide evidence of a product's effectiveness under circumstances where there is a reasonably well-understood mechanism for the toxicity of the agent. Under these requirements, and with FDA's prior agreement, Biologics used to reduce or prevent the toxicity of chemical, biological, radiological or nuclear substances may be approved for use in humans based on evidence of effectiveness derived from appropriate animal studies and any additional supporting data. Products evaluated for effectiveness under this rule are evaluated for safety under pre-existing requirements for establishing the safety of new drug and biological products, including Phase 1 through Phase 2 clinical trials. Under certain circumstances a single animal species may be acceptable if that animal model is sufficiently well-characterized for predicting a response in humans. The animal study endpoint must be clearly related to the desired benefit in humans and the information obtained from animal studies must allow for selection of an effective dose in humans. Products approved under the Animal Rule are subject to additional requirements including post-marketing study requirements, restrictions imposed on marketing and distribution and requirements to provide information to patients.

We have relied on the Animal Rule for our product candidates because we cannot ethically expose humans to anthrax or nerve agents. Other countries do not, at this time, have established criteria for review and approval of these types of products outside their normal review process, i.e., there is no Animal Rule equivalent in countries other than the United States.

Success in early-stage animal studies and clinical trials does not necessarily assure success in later-stage clinical trials. Data obtained from animal studies and clinical activities are not always conclusive and may be subject to alternative interpretations that could delay, limit or even prevent regulatory approval.

All data obtained from the preclinical studies and clinical trials, in addition to detailed information on the manufacture and composition of the product, would be submitted in a BLA to the FDA for review and approval for the manufacture, marketing and commercial shipments of any of our products. FDA approval of the BLA is required before commercial marketing or non-investigational interstate shipment may begin in the United States. The FDA may also conduct an audit of the clinical trial data used to support the BLA.

However, under the Project BioShield, the Secretary of the Department of Health and Human Services, or DHHS, may, with the concurrence of the Secretary of the Department of Homeland Security, or DHS, and upon the approval of the President, contract to purchase unapproved counter measures for the Strategic National Stockpile, or SNS, in specified circumstances. The U.S. Congress is notified of a recommendation for a stockpile purchase after Presidential approval. Project BioShield specifies that a company supplying the counter measure to the SNS is paid on delivery and acceptance of a substantial portion of the counter measure. To be eligible for purchase under these provisions, the Secretary of DHHS must determine that there are sufficient and satisfactory clinical results or research data, including data, if available, from preclinical and clinical trials, to support a reasonable conclusion that the counter measure will qualify for approval or licensing within eight years. The legislation also allows unlicensed products to be procured for the SNS so that they are available at the time an emergency is declared.

Project BioShield also allows the Secretary of DHHS to authorize the emergency use of medical products that have not yet been approved by the FDA. To exercise this authority, the Secretary of DHHS must conclude that:

- the agent for which the counter measure is designed can cause serious or life-threatening disease;
- the product may reasonably be believed to be effective in detecting, diagnosing, treating or preventing the disease;
- the known and potential benefits of the product outweigh its known and potential risks; and
- there is no adequate alternative to the product that is approved and available.

Although this provision permits the Secretary of DHHS to circumvent the FDA approval process, its use would be limited to rare circumstances.

We believe our products would be eligible both for consideration for procurement into the SNS and for use in the event of an emergency, although there is no guarantee that our products would meet the criteria set forth by DHHS or the FDA for procurement and Emergency Use Authorization, or EUA, respectively.

With regard to a BLA, the FDA may deny or delay approval of an application that does not meet applicable regulatory criteria, e.g., if the FDA determines that the preclinical or clinical data or the manufacturing information does not adequately establish the safety, purity and potency (including efficacy) of the Biologic. The FDA has substantial discretion in the approval process and may disagree with an applicant's interpretation of the data submitted in its BLA. The FDA can request additional information, seek clarification regarding information already provided in the submission or ask that additional clinical trials be conducted, all of which can delay approval. The FDA also may, at any time, require the submission of product samples and testing protocols for lot-by-lot confirmatory review or testing, known as lot release, by the FDA prior to commercial distribution. This means a specific lot of Biologic cannot be released for commercial distribution until the FDA has authorized such release. Similar types of regulatory processes will be encountered as efforts are made to market any Biologic internationally. We will be required to assure product performance and manufacturing processes from one country to another.

If the FDA approves a product, it may limit the approved uses for the product as described in the product labeling, require that contraindications, warning statements or precautions be included in the product labeling, require that additional studies be conducted following approval as a condition of the approval, impose restrictions and conditions on product distribution, prescribing or dispensing in the form of a risk evaluation and mitigation strategy, or REMS, or otherwise limit the scope of any approval or limit labeling. Once it approves a BLA, the FDA may revoke or suspend the product approval if compliance with post-market regulatory standards is not maintained or if problems occur after the product reaches the marketplace. In addition, the FDA may require post-marketing studies to monitor the effect of approved products, and may limit further marketing of the product based on the results of these post-market studies. The Animal Rule requires post-marketing studies, such as field studies, to verify and describe the product's clinical benefit and assess its safety should an exigency exist that leads to the product being used in humans; the nature of these studies will be discussed with FDA as part of the BLA process. The FDA has broad post-market regulatory and enforcement powers, including the ability to levy civil and criminal penalties, suspend or delay issuance of approvals, seize or recall products and revoke approvals.

The FDA's Fast Track designation program is designed to facilitate the development and review of new drugs, including biological products that are intended to treat serious or life-threatening conditions and that demonstrate the potential to address unmet medical needs for the conditions. Fast Track designation applies to a combination of the product and the specific indication for which it is being studied. Thus, it is the development program for a specific drug for a specific indication that receives Fast Track designation. The sponsor of a product designated as being in a Fast Track drug development program may engage in early communication with the FDA, including timely meetings and early feedback on clinical trials, and may submit portions of an application on a rolling basis rather than waiting to submit a complete application. Products in Fast Track drug development programs also may receive priority review or accelerated approval, under which an application may be reviewed within six months after a complete NDA or BLA is accepted for filing or sponsors may rely on a surrogate endpoint for approval, respectively. The FDA may notify a sponsor that its program is no longer classified as a Fast Track development program if the Fast Track designation is no longer supported by emerging data or the designated drug development program is no longer being pursued.

Biologics manufacturers, distributors and their subcontractors are required to register their facilities with the FDA and state agencies and are subject to periodic inspections, or inspections “for cause” by the FDA and other authorities, where applicable, and must comply with the FDA’s current Good Manufacturing Practices, or cGMP, regulations, the FDA’s general biological product standards, and the product establishment standards set forth in the approved BLA. The cGMP requirements for biological products in particular are extensive and compliance with them requires considerable time, resources and ongoing investment. The regulations require manufacturers to establish validated systems to ensure that products meet high standards of sterility, purity and potency. The requirements apply to all stages of the manufacturing process, including the synthesis, processing, sterilization, packaging, labeling, storage and shipment of the biological product. For all drugs and biological products, the regulations require investigation and correction of any deviations from cGMP requirements and impose documentation requirements upon us and any third party manufacturers that it may decide to use. Manufacturing establishments are subject to periodic unannounced inspections by the FDA and state agencies for compliance with all cGMP requirements. The FDA is authorized to inspect manufacturing facilities without a warrant at reasonable times and in a reasonable manner.

We, or our present or future suppliers, may not be able to comply with cGMP and other FDA regulatory requirements. Failure to comply with the statutory and regulatory requirements subjects the manufacturer to possible legal or regulatory action, such as a delay or refusal to approve a BLA, suspension of manufacturing, seizure or recall of a product, or civil or criminal prosecution of the company or individual officers or employees.

### ***Post-Marketing Regulation***

Any products manufactured or distributed pursuant to FDA licenses or approvals are subject to pervasive and continuing regulation by the FDA, including but not limited to:

- recordkeeping requirements;
- periodic reporting requirements;
- cGMP requirements related to all stages of manufacturing, testing, storage, packaging, labeling and distribution of finished dosage forms of the product;
- reporting of adverse experiences with the product; and
- advertising and promotion restrictions and enforcement actions.

Adverse experiences with the product must be reported to the FDA and could result in the imposition of market restrictions through labeling changes, recalls, or withdrawal of product approval. Product approvals may be revoked if compliance with regulatory requirements is not maintained or if problems concerning safety or effectiveness of the product occur following approval. As a condition of NDA or BLA approval, the FDA may require post-approval testing and surveillance to monitor a product’s safety or efficacy. The FDA also may impose other conditions, including labeling restrictions which can materially impact the potential market and profitability of a product.

With respect to post-market product advertising and promotion, the FDA imposes a number of complex regulations on entities that advertise and promote Biologics, including, among others, standards and restrictions on direct-to-consumer advertising, off-label promotion, industry-sponsored scientific and educational activities and promotional activities involving the Internet. The FDA has very broad enforcement authority under the FFDCA, and failure to abide by these regulations can result in administrative and judicial enforcement actions, including the issuance of a Warning Letter directing correction of deviations from FDA standards, a requirement that future advertising and promotional materials be pre-cleared by the FDA, and state and federal civil and criminal investigations and prosecutions. Foreign regulatory bodies also strictly enforce these and other regulatory requirements and drug marketing may be prohibited in whole or in part in other countries.

We, our collaborators or our third party contract manufacturers may not be able to comply with the applicable regulations. After regulatory approvals are obtained, the subsequent discovery of previously unknown problems, or the failure to maintain compliance with existing or new regulatory requirements, may result in:

- restrictions on the marketing or manufacturing of a product;
- Warning Letters or Untitled Letters from the FDA asking us, our collaborators or third party contractors to take or refrain from taking certain actions;

- withdrawal of the product from the market;
- FDA's refusal to approve pending applications or supplements to approved applications;
- voluntary or mandatory product recall;
- fines or disgorgement of profits or revenue;
- suspension or withdrawal of regulatory approvals;
- refusals to permit the import or export of products;
- product seizure; and
- injunctions or the imposition of civil or criminal penalties.

### ***Other Regulations***

In addition to the substantial regulations enforced by the FDA, we are also subject to various federal, state and local laws, regulations and recommendations relating to safe working conditions, laboratory and manufacturing practices, the experimental use of animals, and the use and disposal of hazardous or potentially hazardous substances, including radioactive compounds and infectious disease agents, used in connection with our various activities. We cannot accurately predict the extent of government regulation that might result from any future legislation or administrative action.

### ***Changing Legal and Regulatory Landscape***

Periodically legislation is introduced in the U.S. Congress that could change the statutory provisions governing the approval, manufacturing and marketing of drugs, including biological products. In addition, FDA regulations and guidance are often revised or reinterpreted by the FDA in ways that may significantly affect our business and products. We cannot predict whether or when legislation impacting our business will be enacted, what FDA regulations, guidance or interpretations may change, or what the impact of such changes, if any, may be in the future.

### ***Process and Analytical Development, and Manufacturing***

We have no drug substance or drug product development, analytical or manufacturing facilities of our own, and have been relying on third-party contract manufacturing organizations, or CMOs, and contract research organizations, or CROs. CMOs have experience in developing biological manufacturing processes and operating under cGMPs established by the Code of Federal Regulations and the Food, Drug and Cosmetic Act (Biologics) regulated by the FDA, and we rely on them for clinical and future commercial production of our product candidates. CROs provide cGLP/cGMP-compliant services for product analytical tests.

In June 2011, we announced the successful completion of the technology transfer of the rPA bulk drug substance manufacturing to a new CMO, Fujifilm Diosynth Biotechnologies, or FDB, formerly Diosynth Biotechnologies. Subsequently in 2011 we successfully completed a commercial-scale 1,500 liter engineering run and a 1,500 liter cGMP run of SparVax<sup>®</sup> bulk drug substance at FDB's site. Formulation and filling of the final drug product, adjuvanted rPA, are performed at Baxter Pharmaceutical Solutions LLC, located in the United States. The final dosage presentation is in unit dose syringes. All analytical data generated to date demonstrate that the bulk drug substance manufactured at FDB is comparable to bulk drug substance manufactured previously at Avecia Biologics Limited in the UK, and in the fourth quarter of 2012, the FDA confirmed its concurrence that the bulk drug substances manufactured at the two sites are comparable. A SparVax non-clinical efficacy study was completed in 2014 that demonstrated non-inferiority to Anthrax Vaccine Adsorbed.

With respect to Valortim<sup>®</sup>, the cell culture and purification process was developed by Bristol-Myers Squibb, or BMS. We have successfully manufactured bulk drug substance at large scale following technology transfer to a CMO, Laureate Biopharma, which was acquired by Gallus BioPharmaceuticals, LLC. On September 30, 2014, Gallus was acquired by DPx Holdings B.V., the parent company of Patheon. The final drug product was formulated and filled, tested and released for use in clinical trials and non-clinical studies.



Certain raw materials used in producing our product candidates are available from only one source or a limited number of sources. We attempt to mitigate the risk associated with such sole source raw materials by actively managing our supplies. We have not experienced any shortages in supplies of such raw materials. Unavailability of certain materials or the loss of current sources of production could cause an interruption in production on a temporary basis pending establishment of new sources or, in some cases, implementation of alternative processes.

## Intellectual Property

Part of our value depends in part on our ability to obtain patents, to protect trade secrets, and to operate without infringing upon the proprietary rights of others. We seek to protect our proprietary position by, among other methods, filing U.S. and foreign patent applications related to the proprietary technology, inventions and improvements that are important to our business.

The following table identifies each of our issued and non-abandoned patents and published pending applications, in order of importance to us:

<b>Patent/Patent Application</b>	<b>Patent Number/ Application Number</b>	<b>Country of Issue/Filing</b>	<b>Issue Date/File Date</b>	<b>Expiration Date</b>
Anthrax Vaccine Formulation and Uses Thereof	GB2009/051293	WO	October 2, 2009	October 2, 2029
	12/998245	U.S.	October 2, 2009	October 2, 2029
	2011-529634	Japan	October 2, 2009	October 2, 2029
	9785720.5	Europe	October 2, 2009	October 2, 2029
	2,738,621	Canada	October 2, 2009	October 2, 2029
	2009299615	Australia	October 2, 2009	October 2, 2029
	212118	Israel	October 2, 2009	October 2, 2029
Recombinant Butyrylcholinesterase & Truncates thereof	PCT/US10/03225	WO	December 21, 2010	December 21, 2030
	8729245	U.S.	May 20, 2014	December 21, 2030
	8952143	U.S.	February 10, 2015	December 21, 2030
	2012-545932	Japan	June 21, 2012	December 21, 2030
	10842361.7	Europe	December 21, 2010	December 21, 2030
	2,784,861	Canada	June 18, 2012	December 21, 2030
	2010340358	Australia	November 6, 2014	December 21, 2030
Method for Assaying Antigens	220508	Israel	June 19, 2012	December 21, 2030
	GB07/001353	WO	April 12, 2007	April 13, 2027
	12/226101	U.S.	October 7, 2008	April 12, 2027
	2010914	Europe	October 15, 2014	April 12, 2027
	2,648,850	Canada	October 9, 2008	April 12, 2027
	2007242647	Australia	October 13, 2013	April 12, 2027
	194459	Israel	November 1, 2012	April 12, 2027
Long Half-Life Recombinant Butyrylcholinesterase	US07/017279	WO	August 2, 2007	August 3, 2027
	12/309909	U.S.	February 2, 2009	August 3, 2027
	7811030.1	Europe	August 2, 2007	August 2, 2027
	2659809	Canada	February 3, 2009	August 2, 2027
	2007281998	Australia	June 5, 2014	August 2, 2027
	196,871	Israel	February 4, 2009	August 2, 2027

In addition, we are a party to various exclusive and non-exclusive licenses, which provide access to intellectual property and know-how useful for our products. Some of our licenses, which generally extend for the life of any applicable patent, require us to pay royalties on sales of products that may be derived from or produced using the licensed technology. We derive rights to the patents, patent applications and know-how relating to Valortim<sup>®</sup> through our collaboration arrangement with BMS, which owns such rights. For additional information on our license agreements, please refer to *Note 7 - Commitments and Contingencies - License Agreements* in the Notes to our Consolidated Financial Statements.

We currently own no material trademarks.

We have relied upon certain proprietary trade secrets, know-how and continuing technological advances to develop a competitive position. In efforts to maintain confidentiality and ownership of trade secrets, proprietary information and developments, all of our employees are required to execute agreements regarding confidentiality and assign to us all rights to any inventions and processes they develop while they are employed by us. We may in the future use license agreements to access external products and technologies as well as to convey our own intellectual property to others. We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our proprietary rights are covered by valid and enforceable patents or are effectively maintained as trade secrets.

## **Competition**

The pharmaceutical industry is characterized by rapidly evolving technology and intense competition. A large number of companies of all sizes engage in activities similar to our activities and many of our competitors have substantially greater financial and other resources available to them.

### ***Anthrax Product Competition***

In the anthrax vaccine field there is only one FDA licensed anthrax vaccine, Biothrax<sup>®</sup>, which is sold by Emergent Biosolutions, Inc. With respect to the development of a next generation recombinant PA-based vaccine, we are aware of four other companies developing competing vaccines that are in the clinical stages of development: Emergent BioSolutions, Inc., Green Cross, Panacea Biotec Ltd., and PaxVax. There are a number of companies with anthrax vaccines in preclinical development including, but not limited to, Bavarian Nordic, IBio, Pfenex, Soligenix and Vaxin and there may be other companies developing competing vaccines that we are not aware of.

Monoclonal antibodies, or mAbs, directed against PA are being developed for post-exposure prophylaxis and as symptomatic therapy for anthrax infection. There are a limited number of companies we are aware of with anti-anthrax mAbs and/or polyclonal antibodies in development, including GlaxoSmithKline plc., Elusys Therapeutics, Inc., Emergent BioSolutions, Inc., and IQ Corporation BV. There may be other companies developing competing products that we are not aware of.

There are a number of orally available small molecule and other drugs approved and/or under development for the treatment of anthrax. These include broad spectrum antibiotics as well as anthrax specific products. Bayer AG produces ciprofloxacin, or Cipro<sup>®</sup>, which has been approved for the post-exposure prophylaxis of inhalational anthrax. In late 2004, generic versions of Cipro<sup>®</sup> were also approved by the FDA. In addition, levofloxacin, an antibiotic marketed in the United States by Ortho-McNeil Pharmaceuticals, and the generic antibiotic, doxycycline, are both approved for post-exposure prophylaxis of inhalational anthrax. There may be other companies developing competing products that we are not aware of.

## ***Nerve Agent Product Competition***

We are aware of antidotes to nerve agents being developed by pharmaceutical companies, including Countervail Corporation, Meridian Medical Technologies, a subsidiary of Pfizer, Inc., Protalix BioTherapeutics, Inc. and Dynport Vaccine Company, LLC, in collaboration with Baxter Healthcare Corporation. There may be other companies developing competing therapies that we are not aware of.

## **U.S. Government Contracts**

Substantially all of our revenues to date have been derived from grants and U.S. Government contracts. There can be no assurances that our remaining U.S. Government contracts will be continued, renewed beyond the base period, or that we can enter into new contracts or receive new grants to supply the U.S. or other governments with our products. The process of obtaining government contracts is lengthy and uncertain.

U.S. Government contracts typically are subject to audit by the government and contain termination provisions for the government allowing it to terminate at its discretion, which subjects us to additional risks. These risks include the ability of the U.S. Government unilaterally to:

- preclude us, either temporarily or for a set period of time, from receiving new contracts or extending our remaining contracts based on violations or suspected violations of laws or regulations;
- terminate our remaining contracts either for the convenience of the government (at the government's sole discretion, for example, if funds become unavailable or the government no longer wants the work) or for default (for failing to perform in accordance with the contract schedule and terms);
- revise the scope and value of our contracts and/or the timing for work to be performed;
- audit and object to our contract-related costs and fees, including allocated indirect costs;
- control and potentially prohibit the export of our products;
- claim rights to intellectual property, including our products, developed under the contract;
- add or remove the terms and conditions in our contracts; and
- cancel or amend planned procurements, including outstanding RFP solicitations.

Termination-for-convenience provisions generally enable us to recover only our costs incurred or committed, settlement expenses, and profit on the work completed prior to termination. Termination-for-default provisions do not permit these recoveries and would make us liable for excess costs incurred by the U.S. Government in procuring undelivered items from another source.

As of December 31, 2014, we employed 35 persons on a full-time basis, including 19 individuals engaged in research and development activities and 16 individuals engaged in general and administrative functions, such as human resources, finance, accounting, legal and investor relations. At that date, our staff included 7 employees with Ph.D. degrees. None of our employees are party to any collective bargaining agreement, and we believe that our relationship with our employees is good.

## **Financial Information**

Our consolidated contract revenues were \$10.2 million, \$17.9 million and \$25.2 million during the fiscal years ended December 31, 2014, 2013 and 2012, respectively. As of December 31, 2014 our contract with NIAID was funded for approximately \$5.2 million, of which approximately \$0.6 million was recognized as revenue.

Information on the portion of our consolidated revenues attributable to each of our three product candidates during those years is incorporated by reference to the section “Management’s Discussion and Analysis of Financial Condition and Results of Operations – Results of Operations – Year Ended December 31, 2014 Compared to December 31, 2013” and “– Year Ended December 31, 2013 Compared to December 31, 2012.” For further information about operating revenue, operating income, and identifiable assets and liabilities attributable to our operations, see Item 6. Selected Financial Data and Item 8. Financial Statements and Supplementary Data.

### **Financial Information by Geographic Area**

For the fiscal years ended December 31, 2014, 2013 and 2012, all revenues from external customers were attributed to United States customers. Our country of domicile is the United States. As of December 31, 2014, 2013 and 2012, all long-lived assets with a net book value were located in the United States.

### **Research and Development**

During the fiscal years ended December 31, 2014, 2013 and 2012, we spent approximately \$9.3 million, \$15.3 million and \$19.5 million on research and development activities, respectively.

### **Item 1A. Risk Factors.**

*If any of the risks and uncertainties set forth below actually materialize, our business, financial condition and/or results of operations could be materially and adversely affected, the trading price of our common stock could decline and a stockholder could lose all or part of his or her investment. The risks and uncertainties set forth 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.*

### **Risks Related to our Financial Condition**

***We have recently experienced a significant decline in revenues, a trend which we expect will continue as we implement our Realignment Plan. All of our immediately foreseeable future revenues relate to two contracts with the U.S. Government, and the period of performance under one of them has expired. We will not achieve sufficient revenues from these agreements to attain profitability.***

Substantially all of our revenues to date have been derived from grants and U.S. Government contracts. After the termination of our SparVax<sup>®</sup> contract, our main source of revenues is our September 2014 agreement with NIAID for the development of a next generation lyophilized anthrax vaccine based on our proprietary technology platform which contributes the rPA bulk drug substance that is used in the liquid SparVax<sup>®</sup> formulation.

On April 4, 2014, we received notification from BARDA advising us of its decision to de-scope the SparVax<sup>®</sup> anthrax vaccine contract through a partial termination for convenience. We do not expect that we will receive additional funding from BARDA for the further development of SparVax<sup>®</sup> as a liquid product. In addition, the period of performance under our contract with CBMS for our second generation rBChE bioscavenger expired in September 2014, and our product development contract for Valortim<sup>®</sup> with NIAID expired January 31, 2012. In 2013 we entered into an Indefinite-Delivery, Indefinite-Quantity (ID/IQ) contract for approximately \$1.0 million to supply a portion of a master cell bank for Valortim<sup>®</sup> to BARDA. Delivery was made in the fourth quarter of 2014. Additional government funding has not been awarded for the development of Valortim<sup>®</sup> and we do not expect any additional funding.

Therefore, after the expiration of our SparVax<sup>®</sup> contract, our main source of revenues is our September 2014 agreement with NIAID for the development of a next generation anthrax vaccine. The agreement is incrementally funded. Over the base period of the agreement, we were awarded initial funding of approximately \$5.2 million, which includes a cost reimbursement component and a fixed fee component payable upon achievement of certain milestones. The contract has a total value of up to approximately \$28.1 million, if all technical milestones are met and all eight contract options are exercised by NIAID. NIAID may exercise the options in its sole discretion. If NIAID exercises all options, the contract would continue approximately five years. If NIAID does not exercise any options, the contract would expire by its terms on January 5, 2016.

We may not apply for any new government funding for any of our programs. If we applied for additional funding, there is no assurance that we would be successful in entering into new contracts or receiving new grants to supply the United States government, or other governments, with our products. The process of obtaining government contracts is lengthy and uncertain.

***Even though the Delaware Court of Chancery has found that we are entitled to receive lump sum expectation damages for the value of our lost profits for Tecovirimat, this decision is subject to appeal, which precludes the current calculation of a predictable value of the SIGA litigation. Uncertainties include SIGA's recent filing for relief under Chapter 11 of the United States Bankruptcy Code, initiating a process that protects its assets from creditors, including us.***

In December 2006, we filed a complaint against SIGA in the Delaware Court of Chancery. The complaint alleged, among other things, that we have the right to license exclusively the development and marketing rights for SIGA's drug candidate, Tecovirimat, pursuant to a merger agreement between the parties that was terminated in 2006. The complaint also alleged that SIGA failed to negotiate in good faith the terms of such a license pursuant to the terminated merger agreement with us.

In September 2011, the Delaware Court of Chancery issued an opinion in the case finding that SIGA had breached certain contractual obligations to us, upholding our claims of promissory estoppel, and awarding us damages. SIGA appealed aspects of the decision to the Delaware Supreme Court. In response, we cross-appealed other aspects of the decision. In May 2013, the Delaware Supreme Court issued its ruling on the appeal, affirming the Delaware Court of Chancery's finding that SIGA had breached certain contractual obligations to us, reversed its finding of promissory estoppel, and remanded the case back to the Delaware Court of Chancery to reconsider the remedy and award in light of the Delaware Supreme Court's opinion.

On August 8, 2014, the Delaware Court of Chancery issued a Memorandum Opinion and Order, or August 2014 Order, finding that we are entitled to receive lump sum expectation damages for the value of the Company's lost profits for Tecovirimat. In addition, the Delaware Court of Chancery found that the Company is entitled to receive pre-judgment interest and varying percentages of the Company's reasonable attorneys' and expert witness fees. On October 17, 2014, the Company and SIGA each filed opinions of our respective financial experts and Draft Orders and Judgments in accordance with the instructions of the August 2014 Order.

On September 16, 2014, SIGA announced that it filed a voluntary petition for relief under Chapter 11 of the United States Bankruptcy Code in the U.S. Bankruptcy Court for the Southern District of New York. In connection therewith, SIGA filed with the Bankruptcy Court an affidavit indicating, among other things, that it expects to continue to perform under its contract with BARDA. SIGA's petition for bankruptcy initiated a process whereby its assets are protected from creditors, including us.

On January 15, 2015, the Delaware Court of Chancery issued a Final Order and Judgment, finding that we are entitled to receive a lump sum award of \$194.6 million, or the Total Judgment, comprised of (1) expectation damages of \$113.1 million for the value of the Company's lost profits for Tecovirimat, also known as ST-246<sup>®</sup> (formerly referred to as "Arestvyr<sup>™</sup>" and referred to by SIGA in its recent SEC filings as "Tecovirimat"), plus (2) pre-judgment interest on that amount from 2006 and varying percentages of the Company's reasonable attorneys' and expert witness fees totaling \$81.5 million. Under the Final Order and Judgment, PharmAthene is also entitled to post-judgment simple interest. PharmAthene's entitlement to interest from and after SIGA's bankruptcy filing may be negatively impacted by the Bankruptcy Code. SIGA has filed a notice of appeal with the Delaware Supreme Court in which it challenges various findings of the Court of Chancery and seeks to set aside the Final Order and Judgment, and we have filed a notice of cross-appeal. As a result, the decision could be reversed, remanded or otherwise changed.

There can be no assurances if and when the Company will receive any payments from SIGA as a result of the Judgment. SIGA has stated publicly that it does not currently have cash sufficient to satisfy the award. It is also uncertain whether SIGA will have such cash in the future. PharmAthene's ability to collect the Judgment depends upon a number of factors, including SIGA's financial and operational success, which is subject to a number of significant risks and uncertainties (certain of which are outlined in SIGA's filings with the SEC), as to which we have limited knowledge and which we have no ability to control, mitigate or fully evaluate. For example, on December 24, 2014, SIGA announced that it expects to modify its contract with BARDA to reflect an increase in the provisional dosage of Tecovirimat and extended delivery schedule, subject to approval by the Bankruptcy Court.

Furthermore, because SIGA has filed for protection under the federal bankruptcy laws, the Company is automatically stayed from taking any enforcement action in the Delaware Court of Chancery. By agreement of the parties, and with the approval of the Bankruptcy Court, the automatic stay has been lifted for the sole purpose of allowing the Delaware Court of Chancery to enter a money judgment and to allow the parties to exercise their appellate rights. The Company's ability to collect a money judgment from SIGA remains subject to further proceedings in the Bankruptcy Court.

***Our Realignment Plan may not be successful in preserving and maximizing, for the benefit of our stockholders, the value of any proceeds from the SIGA litigation and our existing biodefense assets.***

We have incurred significant losses since we commenced operations. As of December 31, 2014, we had accumulated losses of \$220.3 million since our inception, and had net losses of approximately \$10.0 million, \$11.7 million and \$4.9 million during the last three years, respectively. On March 9, 2015, our Board of Directors approved our Realignment Plan with the goal of preserving and maximizing, for the benefit of our stockholders, the value of any proceeds from the SIGA litigation and our existing biodefense assets. The plan eliminates approximately two-thirds of our workforce or twenty three employees and is aimed at the preservation of cash and cash equivalents sufficient to finance our continued operations through a period of time expected to extend beyond the adjudication of SIGA's appeal. We intend to maintain sufficient resources and personnel so that we can seek partners, co-developers or acquirers for our biodefense programs and continue to execute under our government contract with NIAID.

As part of the Realignment Plan, our Board has determined to terminate Eric Richman as President and Chief Executive Officer, effective 11:59 pm on March 11, 2015, and Linda Chang as Chief Financial Officer, Treasurer and Secretary, effective April 30 2015. Our Board also determined to terminate our executive officers Francesca Cook and Wayne Morges, effective March 9, 2015. Mr. Richman will remain a member of our Board of Directors after March 11 2015. John Gill, a member of our Board of Directors, will serve as President and Chief Executive Officer beginning March 12, 2015, and current Vice President and Controller Philip MacNeill will serve as Chief Financial Officer, Treasurer and Secretary following Ms. Chang's departure. The Board also appointed current Vice President, Corporate Development Jeffrey M. Jones, Ph.D. to serve as the Company's Chief Operating Officer effective March 12, 2015. Mr. Gill is expected to devote necessary time to carry out his duties as President and Chief Executive Officer, and although he does not have other employment, he is not expected to devote his full time to the business of the Company, which is reflected in his compensation. In addition, Messrs. Joel McCleary and Brian Markison are resigning from the Board effective 11:59 pm on March 11, 2015, and the Board is reducing the number of directors from eight to six.

We can offer no assurances that we have correctly estimated the resources or personnel necessary to seek partners, co-developers or acquirers for our biodefense programs or execute under our NIAID contract. If a larger workforce or one with a different skillset is ultimately required to implement our Realignment Plan successfully, we may be unable to maximize the value of the SIGA litigation and our existing biodefense assets. In addition, all of our current executive officers, who have served the Company for a combined 37 years, are being terminated, and, with the exception of Mr. Richman's continued service on the Board, will no longer be available to guide the Company. We also cannot assure you that we have accurately estimated the cash and cash equivalents necessary to finance our operations until SIGA's appeal has been adjudicated and we have received SIGA's payment. If revenues from our NIAID contract are less than we anticipate, if operating expenses exceed our expectations or cannot be adjusted accordingly, or if we have underestimated the time it will take for us to prevail in SIGA's appeal, or enforce payment of or collect the damages award from SIGA, then our business, results of operations, financial condition and cash flows will be materially and adversely affected.

***We cannot provide assurances that we will be able to obtain financing on acceptable terms or at all and any equity financing we do obtain will result in dilution.***

If, for the reasons described in the preceding risk factors or any other reasons, we require additional cash prior to receiving any payment from SIGA, we may be forced to cease operations unless we are able to obtain financing on acceptable terms. There can be no assurances that we would be successful in obtaining sufficient financing on commercially reasonable terms or at all. Our requirements for additional capital may be substantial and will be dependent on many factors.

To the extent that we raise additional capital through the sale of securities, the issuance of those securities or shares underlying such securities would result in dilution that could be substantial to our stockholders. In addition, if we incur additional debt financing, a substantial portion of our operating cash flow may be dedicated to the payment of principal and interest on such indebtedness, thus limiting funds available for our business activities.

***Our ability to use our net operating loss carryforwards (NOLs) may be limited.***

We have incurred substantial losses during our history. If we cannot collect a money judgment from SIGA, we are highly unlikely to be profitable for the foreseeable future and therefore will not generate future taxable income that we can use our net operating loss carryforwards, or NOLs, to offset. As of December 31, 2014, we had U.S. federal NOLs of \$153.0 million. The \$153.0 million in U.S. federal NOLs will begin to expire in various years between 2022 and 2034, if not limited by triggering events prior to such time. Under the provisions of the Internal Revenue Code, changes in our ownership, in certain circumstances, will limit the amount of U.S. federal NOLs that can be utilized annually in the future to offset taxable income. In particular, section 382 of the Internal Revenue Code imposes limitations on a company's ability to use NOLs upon certain changes in such ownership. If we are limited in our ability to use our NOLs in future years in which we have taxable income, we will pay more taxes than if we were able to utilize our NOLs fully. For example, the annual utilization of the U.S. federal NOL carryforwards generated in tax years prior to 2007 may be subject to limitation. We may experience ownership changes in the future as a result of subsequent shifts in our stock ownership that we cannot predict or control that could result in further limitations being placed on our ability to utilize our federal NOLs.

### **Risks Related to Product Development and Commercialization**

***We have not commercialized any products or recognized any revenues from sales. SparVax<sup>®</sup> has been placed on clinical hold for a second time and our contract with BARDA has been terminated. Our product candidates are still under development, which reduces their value from the perspective of potential partners, co-developers or acquirers.***

We have not commercialized any product candidates or recognized any revenues from product sales. It is unlikely that we will receive future funding of the development of our product candidates. Even if we do receive such funding, there can be no assurances that any of our product candidates would meet the safety and efficacy standards required for commercialization. To develop and commercialize biodefense treatment and prophylactic product candidates, we must provide the FDA and foreign regulatory authorities with human clinical and non-clinical animal data that demonstrate adequate safety and effectiveness. To generate this data, we would have to subject our product candidates to significant additional research and development efforts, including extensive non-clinical studies and clinical testing. We cannot be sure that our approach to drug discovery would be effective or would result in the development of any drug. Our development efforts have been primarily focused on one product candidate, SparVax<sup>®</sup>. Even if our product candidates were successful when tested in animals, such success would not be a guarantee of the safety or effectiveness of such product candidates in humans.

In August 2012, we received notification from the FDA that our SparVax<sup>®</sup> rPA anthrax vaccine program was placed on clinical hold prior to initiating any patient dosing in a planned Phase 2 clinical trial. The FDA requested additional stability data and information related to the stability indicating assays, which we supplied, and the FDA lifted the clinical hold in May 2013. In December 2013 we received notification from the FDA that our SparVax<sup>®</sup> rPA anthrax vaccine program was placed on clinical hold for a second time. Specifically the FDA observed a statistically significant downward trend in potency in the engineering lot of FDP manufactured in early 2012 and a similar but not statistically significant trend in the cGMP lot of SparVax<sup>®</sup> FDP produced four months later that we had intended to use in a planned Phase 2 clinical trial. Until such time, if ever, that the FDA lifts the clinical hold, we would not be permitted to enroll any subjects in clinical trials for SparVax<sup>®</sup>. Furthermore, because of BARDA's recent decision to de-scope the SparVax<sup>®</sup> anthrax vaccine contract through a partial termination for convenience and our Realignment Plan, we will likely not receive any future funding for the development of SparVax<sup>®</sup>. Development of SparVax<sup>®</sup> remains incomplete, and may never be completed.

Research and development efforts are time-consuming and subject to delays. Even if we or our potential partners, co-developers or acquirers initially received positive early-stage preclinical or clinical results, such results may not be indicative of results that could be anticipated in the later stages of drug development. Delays in obtaining results in non-clinical studies and clinical testing can occur for a variety of reasons, such as slower than anticipated enrollment by volunteers in the trials, adverse events related to the products, failure to comply with Good Clinical Practices, unforeseen safety issues, unsatisfactory results in trials, perceived defects in the design of clinical trials, changes in regulatory policy as well as for reasons detailed in the section entitled "*Necessary reliance on the Animal Rule in conducting trials is time-consuming and expensive.*"

Any delay or adverse clinical event arising during any of the clinical trials could force us or our potential partners, co-developers or acquirers to conduct additional clinical trials in order to obtain approval from the FDA and other regulatory bodies. Development costs would increase substantially if we or they experience material delays in any clinical trials or need to conduct more or larger trials than planned. If delays are significant, or if any of our product candidates do not prove to be safe, pure, and potent (including efficacy) or do not receive required regulatory approvals, we or our potential partners, co-developers or acquirers may have to abandon the product candidate altogether and will be unable to recognize revenues from the sale of that product.

For any and all of the foregoing reasons, the value of our product candidates in the eyes of potential partners, co-developers or acquirers may be significantly less than we expect, resulting in lower proceeds to us from any agreement we may enter with such partners, co-developers or acquirers.

***Necessary reliance on the Animal Rule in conducting trials is time-consuming and expensive.***

To obtain FDA approval for biological warfare defense products under current FDA regulations, companies are required to utilize animal model studies for efficacy and provide animal and human safety data under the Animal Rule. For many of the biological and chemical threats, animal models are not yet available, and as such we or our potential partners, co-developers or acquirers have to develop appropriate animal models, which is a time-consuming and expensive research effort. Further, we or they may not be able to sufficiently demonstrate the animal correlation to the satisfaction of the FDA, as these corollaries are difficult to establish and are often unclear. The FDA may decide that our data are insufficient for approval and require additional non-clinical, clinical or other studies, refuse to approve our products, or place restrictions on our or our partners', co-developers' or acquirers' ability to commercialize those products. Further, other countries have not, at this time, established criteria for review and approval of these types of products outside their normal review process, i.e., there is no Animal Rule equivalent, and consequently there can be no assurance that a company will be able to make a submission for marketing approval in foreign countries based on such animal data.

Additionally, few facilities in the United States and internationally have the capability to test animals with anthrax, nerve agents, or other lethal biotoxins or chemical agents or otherwise assist in qualifying the requisite animal models. We or our potential partners, co-developers or acquirers have to compete with other biodefense companies for access to this limited pool of highly specialized resources and therefore may not be able to secure contracts to conduct the testing in a predictable timeframe or at all.

***Even if we or our potential partners, co-developers or acquirers were able to overcome the obstacles to funding, development and commercialization described in these Risk Factors, our products may not become profitable and manufacturing problems or side effects discovered at later stages could further increase costs of commercialization.***

It is uncertain whether we will receive future funding of the development of our product candidates. Even if we did receive such funding, and even if we succeed in commercializing our product candidates with the help of potential partners or co-developers, or alone, we could not assure you that any drugs resulting from our research and development efforts would become commercially available. Even if we succeeded in (co-)developing and commercializing our product candidates, they may never generate sufficient or sustainable revenues to enable us to be profitable.

Even if effective, a product that reaches market may be subject to FDA-mandated or –requested additional clinical trials, changes to or re-approvals of our manufacturing facilities or a change in labeling if we or others identify side effects or manufacturing problems after a product is on the market. This could harm sales of the affected products and could increase the cost and expenses of commercializing and marketing them. It could also lead to the suspension or revocation of regulatory approval for the products.

We or our potential partners or co-developers, and our and their respective CMOs are also required to comply with the applicable FDA cGMP regulations. These 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 to supply licensed products to the commercial marketplace. We or our potential partners or co-developers, and our respective contract manufacturers may not be able to comply with the applicable cGMP requirements and other FDA regulatory requirements. Should we or they fail to comply, we could be subject to fines or other sanctions or could be precluded from marketing the products.



***We may become subject to product liability claims, which could result in damages that exceed our insurance coverage.***

We face an inherent risk of exposure to product liability suits in connection with our product candidates being tested in clinical trials or sold commercially. We may become subject to a product liability suit if any product we (co-)develop causes injury, or if treated individuals subsequently become infected or suffer adverse effects from our products. Regardless of merit or eventual outcome, product liability claims may result in decreased demand for a product, injury to our reputation, withdrawal of clinical trial volunteers, and loss of revenues.

In addition, if a product liability claim is brought against us, the cost of defending the claim could be significant and any adverse determination may result in liabilities in excess of our insurance coverage. Although our anthrax counter measures are covered under the general immunity provisions of the U.S. Public Readiness and Emergency Preparedness Act, or the Public Readiness Act, there can be no assurance that the U.S. Secretary of Health and Human Services will make other declarations in the future that cover any of our other product candidates or that the U.S. Congress will not act in the future to reduce coverage under the Public Readiness Act or to repeal it altogether. For further discussion of that act, see “— *Legislation limiting or restricting liability for medical products used to fight bioterrorism is new, and it cannot be certain that any such protection will apply to our products or if applied what the scope of any such coverage will be.*” Additionally, we are considering applying for indemnification under the U.S. Support Anti-terrorism by Fostering Effective Technologies (SAFETY) 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, we cannot be certain that we will be able to obtain or maintain coverage under the SAFETY Act or adequate insurance coverage on acceptable terms, if at all.

***Our inability to enter into and complete strategic transactions with respect to our product candidates or otherwise could materially harm our financial condition.***

Our Realignment Plan contemplates the identification of strategic partners for one or more of our product candidates. Any resulting transactions can take the form of partnerships, co-development agreements, and sales of our product candidates, among others. There can be no assurances that such transactions, if commenced, would be successfully completed or completed on favorable terms. In addition, if we pursue strategic acquisitions and business combinations for further development and commercialization efforts, we may incur significant out of pocket costs as well as expend management time and those of other employees. To achieve the anticipated benefits of an acquisition, there must be an integration of the two companies’ businesses, technologies and employees in an efficient and effective manner. The successful combination of companies in a rapidly changing biodefense industry may be more difficult to accomplish than in other industries. The combination of two companies requires, among other things, integration of the companies’ respective technologies and research and development efforts. We cannot assure you that any integration will be accomplished smoothly or successfully. The difficulties of integration are increased by the need to coordinate geographically separated organizations and address possible differences in corporate cultures and management philosophies. The integration of certain operations will require the dedication of management resources that may temporarily distract attention from the day-to-day operations of the combined companies. The business of the combined companies may also be disrupted by employee retention uncertainty and lack of focus during integration. The inability of management to integrate successfully the operations of the two companies, in particular, to integrate and retain key scientific personnel, or the inability to integrate successfully two technology platforms, could have a material adverse effect on our business, results of operations and financial condition.

**Risks Related to Our Dependence on U.S. Government Contracts**

***All of our immediately foreseeable future revenues relate to two contracts with the U.S. Government, and the period of performance under one of them has expired. We will not achieve sufficient revenues from these or any future agreements to attain profitability.***

Substantially all of our revenues to date have been derived from grants and U.S. Government contracts. After the expiration of our SparVax<sup>®</sup> contract, our main source of revenues is our September 2014 contract with NIAID for the development of a next generation lyophilized anthrax vaccine based on our proprietary technology platform which contributes the rPA bulk drug substance that is used in the liquid SparVax<sup>®</sup> formulation. We will not achieve sufficient revenues from this contract to attain profitability.

We may not choose to apply for new government funding for any of our programs. If we applied for additional funding, there is no assurance that we would be successful in entering into new contracts or receiving new grants to supply the United States or other governments with our products. The process of obtaining government contracts is lengthy and uncertain. If the U.S. Government made significant contract awards for the supply to the SNS to our competitors, rather than to us, our business would be harmed and we may ultimately be unable to supply that particular treatment or product to foreign governments or other third parties. Further, changes in U.S. Government budgets and agendas, funding strategies, cost overruns in our programs or others, or advances by our competitors, may result in changes in the timing of funding for, a decreased and de-prioritized emphasis on, or termination of, U.S. Government contracts that support the development and/or procurement of biodefense products.

Funding is subject to U.S. Congressional appropriations, which are generally made on an annual basis even for multi-year contracts. More generally, due to the ongoing economic uncertainty, the U.S. Government may reduce or delay spending in the biodefense field or eliminate funding of certain programs altogether, which further decreases the likelihood of future government contract awards or that the government would procure products from us. Future funding levels for two of our historical government customers, BARDA and the U.S. Department of Defense, for the advanced development and procurement of medical counter measures are uncertain, and may be subject to budget cuts as the U.S. Congress and the President continue to balance a multitude of competing priorities.

***U.S. Government agencies have special contracting authority that gives them the ability to terminate and/or modify its contracts.***

U.S. Government contracts typically are subject to audit, and contain termination provisions allowing the government to terminate all or part of a contract at its sole discretion, which will subject us to additional risks. These risks include the ability of the U.S. Government unilaterally to:

- preclude us, either temporarily or for a set period of time, from receiving new contracts or extending our existing or future contracts based on violations or suspected violations of laws or regulations;
- terminate our contract, either for the convenience of the government (at the government's sole discretion, for example, if funds become unavailable or the government no longer wants the work, as was the case with the government's partial termination for convenience of our SparVax® contract) or for default (for failing to perform in accordance with the contract schedule and terms);
- revise the scope and value of our contract and/or revise the timing for work to be performed;
- audit and object to our contract-related costs and fees, including allocated indirect costs;
- control and potentially prohibit the export of our products, if and when developed;
- claim rights to intellectual property, including products, that may be developed under the contract;
- add or remove the terms and conditions in our contract; and
- cancel or amend planned procurements, including outstanding RFP solicitations.

As stated above, the U.S. Government can terminate or modify any of its contracts with us either for its convenience (at its sole discretion) or for default if we fail to perform in accordance with the contract schedule and terms. Termination-for-convenience provisions generally enable us to recover only our costs incurred or committed, settlement expenses, and profit on the work completed prior to termination. A contractor's rights under a termination for convenience are limited to an adjustment of profit and, with the contracting officer's concurrence, a reduction in the estimated cost. Under the general termination for convenience procedures, a partial termination is treated as a full termination when (i) the terminated portion is clearly severable from the balance of the contract or (ii) when contract performance is virtually complete or performance of the continued portion of the contract is only on subsidiary items or is otherwise not substantial. Termination-for-default provisions do not permit these recoveries and could make us liable for excess costs incurred by the U.S. Government in procuring undelivered items from another source.

The U.S. Government may reduce or delay spending in the biodefense field or eliminate funding of certain programs altogether, which could further decrease the likelihood of future government contract awards, the likelihood that the government will exercise its right to extend its remaining contract with us and/or the likelihood that the government would procure products from us, if and when developed.

***The U.S. Government's determination to award any contracts may be challenged by an interested party, such as another bidder, at the relevant agency, GAO or the U.S. Court of Federal Claims (either in the first instance or in review of a prior agency or GAO decision). If such a challenge is successful, a contract award may be re-evaluated and terminated.***

The laws and regulations governing the procurement of goods and services by the U.S. Government provide procedures by which other interested parties (typically, other offerors) may challenge the award of a government contract. If we were awarded a government contract, such challenges or protests could be filed, regardless of whether the award was actually improper. If a protest is filed, the government agency may decide, and in certain circumstances is required, either by statute or by court order, to suspend our performance under the contract while the protest is being considered by the U.S. Government Accountability Office, or GAO, or the U.S. Court of Federal Claims, thus potentially delaying delivery of goods and services and payment. In addition, we might need to expend considerable funds to defend any potential award. If a protest is successful, the government may be ordered to re-evaluate bids and make an award based on the re-evaluation or amend the solicitation, invite new bids, and make an award based on an evaluation of such revised bids.

For example, in March 2010, a third-party filed a bid protest with the GAO challenging the February 2010 decision of the DHHS to modify its existing research and development contract with us for the development of SparVax<sup>®</sup>. In March 2010 DHHS suspended performance under the modification pursuant to the automatic stay provisions of the Competition in Contract Act (31 U.S.C. § 3553(d)) and the Federal Acquisition Regulation, pending a decision by the GAO on the protest. While the bid protest was ultimately denied, and the related DHHS "stop work" order canceled in June 2010, the protest contributed to a reduction in revenues and cash and cash equivalents over the period that work could not be performed under the modification. In addition, we incurred unexpected general and administrative expenses to intervene in the protest.

Furthermore, as a result of the partial U.S. Federal Government shutdown from October 1 through October 16, 2013, work was temporarily suspended under our development contract for SparVax<sup>®</sup>. Consequently, our revenues under this contract for the fourth quarter of 2013 were lower than they otherwise could have been.

***Our business is subject to audit by the U.S. Government, and a negative audit could adversely affect our business.***

During 2014, BARDA audited previous years of indirect costs charged by us on the SparVax<sup>®</sup> contract. Depending on the outcome of the audit, the revenue we receive in 2015 for work previously completed under the SparVax<sup>®</sup> program is uncertain.

Other U.S. Government agencies such as the Defense Contract Audit Agency, or the DCAA, also routinely audit and investigate government contractors. These agencies review, among other things, a contractor's performance under its contracts, incurred costs, cost structure and compliance with applicable laws, regulations and standards.

The DCAA also reviews the adequacy of, and a contractor's compliance with, its internal control systems and policies, including the contractor's purchasing, property, estimating, compensation and management information systems. Any costs found to be improperly allocated to a specific contract will not be reimbursed, while such costs already reimbursed must be refunded. If an audit uncovers improper or illegal activities, we may be subject to civil and criminal penalties and administrative sanctions, including:

- termination of contracts;
- forfeiture of profits;
- suspension of payments;
- fines; and
- suspension or prohibition from conducting business with the U.S. Government.

In addition, we could suffer serious reputational harm if allegations of impropriety were made against us.

***Laws and regulations affecting government contracts make it more costly and difficult for us to successfully conduct our business.***

We must comply with numerous laws and regulations relating to the formation, administration and performance of government contracts, which can make it more difficult for us to retain our rights under these contracts. These laws and regulations affect how we conduct business with government agencies. Among the most significant government contracting regulations that affect our business are:

- the Federal Acquisition Regulation and agency-specific regulations supplemental to the Federal Acquisition Regulation, which comprehensively regulate procurement, from formation to administration and performance;
- the business ethics and public integrity obligations, which govern conflicts of interest and the hiring of former government employees, prohibit, among other things, gratuities, restrict funding of lobbying activities and incorporate other requirements such as the Anti-Kickback Act, the Procurement Integrity Act, the False Claims Act and Foreign Corrupt Practices Act;
- export and import control laws and regulations;
- laws, regulations and executive orders restricting the use and dissemination of information classified for national security purposes and the exportation of certain products and technical data; and
- laws, regulations, and executive orders that allow the government to claim certain rights to contractors' intellectual property such as the Bayh-Dole Act.

Foreign governments typically also have laws and regulations governing contracts with their respective agencies. These foreign laws and regulations affect how we and our customers conduct business and, in some instances, impose added costs on our business. Any changes in applicable laws and regulations could restrict our ability to maintain our existing contracts and obtain new contracts, which could limit our ability to conduct our business and materially adversely affect our revenues and results of operations.

**Risks Related to Dependence on or Competition From Third Parties**

***Because we depend on clinical research centers and other contractors for clinical and non-clinical testing, including testing under the Animal Rule, and for certain research and development activities, the results of our clinical trial, non-clinical animal efficacy studies, and research and development activities are largely beyond our control.***

The nature of clinical trials and our business strategy of outsourcing substantially all of our research and development and manufacturing work require that we rely on clinical research organizations and other contractors to assist us with research and development, clinical and non-clinical testing (including animal efficacy studies under the Animal Rule), patient enrollment, manufacturing and other activities. As a result, our success depends largely on the success of these third parties in performing their responsibilities. Although we prequalify our contractors and believe that they are fully capable of performing their contractual obligations, we cannot directly control the adequacy and timeliness of the resources and expertise that they apply to these activities. Furthermore, we have to compete with other biodefense and biopharmaceutical companies for access to this limited pool of highly specialized resources. If our contractors do not meet their obligations in an adequate and timely manner or we are unable to enter into contracts with them, the pace of clinical or non-clinical development, regulatory approval and commercialization of product candidates could be significantly delayed and our prospects could be adversely affected.

***We depend on third parties to manufacture, package and distribute compounds for our product candidates and key components for our product candidates. The failure of these third parties to provide their services or to perform them successfully could harm our business.***

We do not have any of our own manufacturing facilities. We have therefore utilized third parties to manufacture, package and distribute our product candidates and key components of our product candidates. Any material disruption in manufacturing (i.e. due to third party capacity or availability limitations) could cause a delay in development programs and potential future sales, if any. Furthermore, certain compounds, media, or other raw materials used to manufacture our drug candidates are available from only one or a limited number of sources. Any delays or difficulties in obtaining key components for our product candidates or in manufacturing, packaging or distributing our product candidates could delay clinical trials and further development of these potential products. Additionally, the third parties we rely on for manufacturing and packaging are subject to regulatory review, and any regulatory compliance problems with these third parties could significantly delay or disrupt any commercialization activities we may engage in.

Finally, third-party manufacturers, suppliers and distributors, like most companies, have been adversely affected by the weakening of the global economy and as such may be more susceptible to being acquired as part of the current wave of consolidations in the pharmaceutical industry. If our third-party suppliers continue to experience financial difficulties as a result of weak demand for their products or for other reasons and are unable to obtain the capital necessary to continue their present level of operations or are acquired by others, they may have to reduce their activities and/or their priorities or our working relationship with them might change. A material deterioration in their ability or willingness to meet their obligations to us could cause a delay in our development program and potential future sales and jeopardize our ability to meet our obligations under our contract with the government or other third parties.

***We face competition from companies with greater financial, personnel and research and development resources, further limiting our commercial opportunities.***

The biopharmaceutical industry is characterized by rapid and significant technological change. Even if we were able to overcome the obstacles to funding, development and commercialization described in these Risk Factors, our success would depend on our ability to establish and maintain a market for our product candidates. There are many organizations, 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 organizations have substantially greater financial, technical, intellectual property, research and development, and human resources than we have. Competitors may develop products or other technologies that are more effective than any that we may be developing or may obtain FDA approval for products more rapidly. For example, the U.S. Government selected a plague vaccine product candidate from a competitor for advanced development funding, causing us to wind down activities related to the development of our RypVax™ product candidate in 2010.

Even if we were able to overcome the obstacles to funding, development and commercialization described in these Risk Factors, we still must compete in the manufacturing and marketing of such products, areas in which we have limited experience. Many of these organizations also have manufacturing facilities and established marketing capabilities that would enable such companies to market competing products through existing channels of distribution. Any commercial opportunities will be reduced or eliminated if our competitors develop and market products that:

- are more effective;
- have fewer or less severe adverse side effects;
- are more adaptable to various modes of dosing;
- obtain orphan drug exclusivity that blocks the approval of our application for seven years;
- are easier to administer; or
- are less expensive than the products or product candidates that we are, or in the future will be, developing.

The Patient Protection and Affordable Care Act, or Affordable Care Act, signed into law by President Obama on March 23, 2010, amends the Public Health Service Act to create an abbreviated licensure pathway for biological products that are demonstrated to be “biosimilar” to or “interchangeable” with an FDA-licensed biological product. Under this new law, a biological product may be demonstrated to be “biosimilar” if data show that, among other things, the product is “highly similar” to an already-approved biological product. To date, the FDA has not approved a biological product as biosimilar or interchangeable. Since passage of the Affordable Care Act in 2010, however, the FDA has been establishing standards for licensure to ensure the safety and effectiveness of biosimilars. Because biological products are complex products, the development and approval of biosimilars is a complicated and challenging process. Numerous companies are reportedly developing biosimilar products and several applications for licensure have reportedly been submitted to the FDA under the new law. On March 6, 2015, the FDA approved a biosimilar application filed by Novartis for a competing version of Amgen’s cancer treatment biologic drug product, Neupogen. Scientists, clinicians, and other personnel at the FDA are continuing to work out the details of the biosimilar application requirements, and the FDA’s review and licensure process, which are expected to vary on a product-by-product basis.

If we were successful in developing licensed biological products and a competitor company/companies chose to develop biosimilar products and receives FDA licensure for such products, this competition could impact the revenue projections for our products.

Even if we were successful in developing effective products, and obtain FDA and other regulatory approvals necessary for commercializing them, our products may not compete effectively with other successful products. Our competitors may succeed in developing and marketing products either that are more effective than those that we may develop, alone or with our collaborators, making our products obsolete, or that are marketed before any products that we develop are marketed.

### **Risks Related to Political and Social Factors**

*Political or social factors may delay or impair our ability to market our products and our 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. Even if we were able to overcome the obstacles to funding, development and commercialization described in these Risk Factors, political or social pressures may delay or cause resistance to bringing our products to market or limit pricing of our products, which would harm our business.

### **Risks Related to Intellectual Property**

*Part of our value depends on our ability (i) to obtain and maintain protection for our proprietary technology and that of our licensors and collaborators and (ii) not to infringe on patents and proprietary rights of third parties.*

Issues surrounding patents of biotechnology firms often involve complex legal and factual questions, and, therefore, validity and enforceability cannot be predicted with certainty. To date, no consistent policy has emerged regarding the breadth of claims allowed in biotechnology patents. We currently have two U.S. patents, three pending U.S. patent applications, and have a limited number of foreign patents and pending international and foreign patents applications. In addition, we have rights under 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 us will result in patents being issued or that the patents, whether 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 us or our collaborators and limit our ability or that of our collaborators to obtain meaningful patent protection. Further, our commercial success would depend significantly on our ability to operate without infringing the patents and proprietary rights of third parties. We are aware of one U.S. patent covering recombinant production of an antibody and a license may be required under such patent with respect to Valortim<sup>®</sup>, which is a monoclonal antibody and uses recombinant production technologies. Although the patent owner has granted licenses under such patent, we cannot provide any assurances (assuming we were able to continue development of Valortim<sup>®</sup>) that we would be able to obtain such a license or that the terms thereof will be reasonable. If we do not obtain such a license and if a legal action based on such patent was to be brought against us or our distributors, licensees or collaborators, we cannot provide any assurances that we or our distributors, licensees or collaborators would prevail or that we have sufficient funds or resources to defend such claims.

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 ultimate outcome is favorable. An outcome of any patent prosecution or litigation that is unfavorable to us or one of our licensors or collaborators may have a material adverse effect on us. The expense of a protracted infringement suit, even if ultimately favorable, would also have a material adverse effect on us.

We furthermore rely upon trade secrets protection for our confidential and proprietary information. We have taken measures to protect our proprietary information; however, these measures may not provide adequate protection to us. We have sought to protect our proprietary information by entering into confidentiality agreements with employees, collaborators and consultants. Nevertheless, employees, collaborators or consultants may still disclose our proprietary information, and we may not be able to meaningfully protect our trade secrets. In addition, others may independently develop substantially equivalent proprietary information or techniques or otherwise gain access to our trade secrets.

### **Risks Related to Regulatory Approvals and Legislation**

***Our use of hazardous materials and chemicals requires us to comply with regulatory requirements which may result in significant costs and expose us to potential liabilities.***

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

***Legislation limiting or restricting liability for medical products used to fight bioterrorism is new, and it cannot be certain that any such protection will apply to our products or if applied what the scope of any such coverage will be.***

The U.S. Public Readiness Act was signed into law in December 2005 and creates general immunity for manufacturers of counter measures, including security counter measures (as defined in Section 319F-2(c)(1)(B) of that act), when the U.S. Secretary of Health and Human Services 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 counter measure. Manufacturers are excluded from this protection in cases of willful misconduct. Although our anthrax counter measures have been covered under the general immunity provisions of the Public Readiness Act since October 1, 2008, there can be no assurance that the Secretary of Health and Human Services will make other declarations in the future that would cover any of our other product candidates or that the U.S. Congress will not act in the future to reduce coverage under the Public Readiness Act or to repeal it altogether.

Upon a declaration by the Secretary of Health and Human Services, a compensation fund would be created to provide “timely, uniform, and adequate compensation to eligible individuals for covered injuries directly caused by the administration or use of a covered counter measure.” 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. Furthermore, there is no assurance that the Secretary of Health and Human Services will issue under this act a declaration to establish a compensation fund. We may also become subject to standard product liability suits and other third party claims if products we develop 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.

***We are required to comply with certain export control laws, which may limit our ability to sell our products to non-U.S. persons and may subject us to regulatory requirements that may further delay or limit our ability to develop and commercialize our products.***

Our product candidates are subject to the Export Administration Regulations, or EAR, administered by the U.S. Department of Commerce and are, in certain instances (such as aspects of our nerve agent counter measure product candidates) subject to the International Traffic in Arms Regulations, or ITAR, administered by the U.S. Department of State. EAR restricts the export of dual-use products and technical data to certain countries, while ITAR restricts the export of defense products, technical data and defense services. The U.S. Government agencies responsible for administering EAR and ITAR have significant discretion in the interpretation and enforcement of these regulations. Failure to comply with these regulations can result in criminal and civil penalties and may harm our ability to enter into future contracts with the U.S. Government. It is also possible that these regulations could adversely affect our ability to sell any products to non-U.S. customers.

## Risks Related to Personnel

***We depend on our key technical and management personnel, and the loss of these personnel could impair the development of our products.***

We rely, and will continue to rely, on our key management and scientific staff, all of whom are employed at-will. The loss of key personnel or the failure to recruit necessary additional qualified personnel could have a material adverse effect on our business and results of operations. There is intense competition from other companies, research and academic institutions and other organizations for qualified personnel. We may not be able to continue to attract and retain the qualified personnel necessary for the development of our business. If we do not succeed in retaining and recruiting necessary personnel or developing this expertise, our business could suffer significantly.

***Biotechnology companies often become subject to claims that they or their 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 our management.***

As is commonplace in the biotechnology industry, we employ individuals who were previously employed at other biotechnology or pharmaceutical companies, including at competitors or potential competitors. Although no claims against us are currently pending, we may be subject to claims that we or our employees 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 we are successful in defending against these claims, litigation could result in substantial costs and distract management.

## Risks Related to our Common Stock and our GE Loan Agreement

***If we do not meet the continued listing standards of the NYSE MKT our common stock could be delisted from trading, which could limit investors' ability to make transactions in our common stock and subject us to additional trading restrictions.***

Our common stock is listed on the NYSE MKT, a national securities exchange, which imposes continued listing requirements with respect to listed shares. If we fail to satisfy the continued listing standards, or the board of directors of the NYSE MKT, in its discretion, determines that a condition exists that makes further dealings of our Company on the exchange unwarranted, the NYSE MKT may issue a non-compliance letter or initiate delisting proceedings, as it did in 2010. Our Realignment Plan involves a substantial reduction in workforce. Under NYSE MKT rules, any developments which substantially reduce the size of a listed company or the nature and scope of its operations, or any abandonment of a substantial portion of the listed company's business, or the listed company's inability to continue its business, among other reasons, may trigger a review of continued listing by the exchange. In addition, as part of the Realignment Plan, we may in the future sell or otherwise dispose of our principal operating assets or cease to be an operating company, either of which may cause the Board of Directors of the NYSE MKT to suspend dealings in or remove from listing our common stock.

If our securities are delisted from trading on the NYSE MKT and we are not able to list our securities on another exchange or to have them quoted on NASDAQ, our securities could be quoted on the OTC Bulletin Board or on the "pink sheets." As a result, we could face significant adverse consequences including:

- a limited availability of market quotations for our securities;
- a determination that our common stock is a "penny stock" which will require brokers trading in our common stock to adhere to more stringent rules and possibly result in a reduced level of trading activity in the secondary trading market for our securities;
- a limited amount of news and analyst coverage for us; and
- a decreased ability to issue additional securities (including pursuant to short-form registration statements on Form S-3) or obtain additional financing in the future.



***Our fully-secured loan agreement with GE Capital is subject to acceleration in specified circumstances, which may result in GE Capital terminating the commitment, accelerating repayment of obligations or taking possession and disposing of any collateral.***

In the first quarter 2012, we closed on a senior fully-secured debt facility with GE Capital providing for a \$2.5 million term loan and a revolving line of credit of up to \$5.0 million based on a percentage of our outstanding qualified accounts receivable. Our obligations under the GE Loan Agreement are secured by a security interest in substantially all of our assets. While the security interest does not, except in limited circumstances, cover our intellectual property, it does cover any proceeds to us from the use or sale of intellectual property. The GE Loan Agreement contains customary representations, warranties and covenants, including limitations on acquisitions, dispositions, incurrence of indebtedness and the granting of security interests. Upon the occurrence and during the continuance of any event of default, GE Capital may, and at the written request of the requisite lenders will, terminate the commitments under the facilities and declare any or all of the obligations to be immediately due and payable, without demand or notice to us. Any event of default relating to timely payment of debts, insolvency, liquidation, bankruptcy or similar events will result in automatic acceleration. Among the remedies available to GE Capital in case of an event of default are terminating the commitment, accelerating repayment of obligations or taking possession and disposition of any collateral under the GE Loan Agreement.

We currently owe GE Capital an aggregate of approximately \$0.8 million under the GE Loan Agreement. As a result of the receipt of the notice that we received from BARDA on April 4, 2014 advising us of its decision to de-scope the SparVax<sup>®</sup> anthrax vaccine contract through a partial termination for convenience, GE Capital could assert that there has occurred an event of default under the GE Loan Agreement, which would allow GE Capital to terminate the commitment and the loans under the GE Loan Agreement and declare any or all of the obligations thereunder to be immediately due and payable. For more information on our senior fully-secured debt facility, please refer to *Note 6 – Debt – Term Loan and Revolving Line of Credit*, in the Notes to our Consolidated Financial Statements contained in this annual report on Form 10-K.

***Our stock price is volatile.***

The market price of our common stock has been, and is expected to continue to be, subject to significant volatility. The value of our common stock may decline regardless of our operating performance or prospects. Factors that may affect our market price include:

- Our perceived prospects, including but not limited to any developments in the timing and outcome of the SIGA litigation and changes in U.S. Government funding of projects in which we participate;
- variations in our operating results and whether we have achieved key business targets;
- changes in, or our failure to meet, revenue estimates;
- changes in securities analysts' buy/sell recommendations;
- differences between our reported results and those expected by investors and securities analysts;
- announcements of new contracts or other developments by us or our competitors;
- reaction to any acquisitions, joint ventures or strategic investments announced by us or our competitors; and
- general economic, political or stock market conditions.

***Shares that we may issue in the future in connection with certain capital-raising transactions and shares available for future issuance upon exercise of warrants and options could dilute our stockholders and depress the market price of our common stock.***

The issuance of our securities in the future may depress the market price of our stock, and any such financing(s) will dilute our existing stockholders.

As of December 31, 2014, aggregate gross sales for additional common stock of approximately \$3.0 million remained available under our controlled equity offering agreement, as amended.

In addition, as of December 31, 2014, we had outstanding options to purchase approximately 7.4 million shares of common stock (not including restricted shares). Additional shares are reserved for issuance under our 2007 Long-Term Incentive Compensation Plan. Our stock options are generally exercisable for ten years, with a significant portion exercisable either immediately or beginning one year after the date of the grant.

We filed two registration statements on Form S-3 (File Nos. 333-161587 and 333-176607) covering the resale of shares issued upon conversion of our 10% convertible notes and issuable upon exercise of related warrants by certain of our affiliates, among other security holders. Both registration statements have been declared effective. While the warrants expired on January 28, 2015 without being exercised, shares underlying the notes continue to be held by their original holders. Our obligation under the terms of the related registration rights agreement is to keep these registration statements effective until the last share issued upon conversion of the notes has been resold by the selling security holders or is eligible for resale without restrictions under Rule 144. The sale by these security holders of their shares pursuant to the registration statement or otherwise could depress the market price of our common stock.

Finally, as of December 31, 2014, we had issued and outstanding warrants to purchase up to approximately 4.5 million shares of common stock (including the warrants mentioned in the preceding paragraph), of which warrants to purchase approximately 1.9 million shares of common stock remain outstanding on March 3, 2015.

The issuance or even the expected issuance of a large number of shares of our common stock upon purchase, conversion or exercise of the securities described above could depress the market price of our stock and the issuance of such shares will dilute the stock ownership of our existing stockholders. Shares that we may issue in the future in connection with certain capital-raising transactions and shares available for future issuance upon exercise of warrants and options could dilute our stockholders and depress the market price of our common stock.

*We can give no assurances that we will ever pay dividends.*

The current loan and security agreement with GE Capital specifically restricts the declaration or payment of any dividends. We have never paid any dividends on our common stock, and we do not intend to declare any dividends in the foreseeable future. While subject to periodic review, our current policy is to retain all earnings, if any, primarily to finance our future growth. We make no assurances that we will ever pay dividends, cash or otherwise. Whether we pay any dividends in the future will depend on our financial condition, results of operations, and other factors that we will consider.

#### **Item 1.B. Unresolved Staff Comments.**

None.

#### **Item 2. Properties.**

Our principal executive offices are located at One Park Place, Annapolis, MD 21401 and are comprised of leased space of approximately 21,900 square feet. The lease expires in 2017. For additional information on the lease, please refer to *Note 7 – Commitments and Contingencies* in the Notes to our Consolidated Financial Statements.

Management believes that these facilities are suitable and adequate to meet our anticipated needs.

### Item 3. Legal Proceedings.

Except as noted below, we are not a party to any material legal proceedings.

In December 2006, we filed a complaint against SIGA in the Delaware Court of Chancery. The complaint alleged, among other things, that we have the right to license exclusively the development and marketing rights for SIGA's drug candidate, Tecovirimat, pursuant to a merger agreement between the parties that was terminated in 2006. The complaint also alleged that SIGA failed to negotiate in good faith the terms of such a license pursuant to the terminated merger agreement with us.

In September 2011, the Delaware Court of Chancery issued an opinion in the case finding that SIGA had breached certain contractual obligations to us, upholding our claims of promissory estoppel, and awarding us damages. SIGA appealed aspects of the decision to the Delaware Supreme Court. In response, we cross-appealed other aspects of the decision. In May 2013, the Delaware Supreme Court issued its ruling on the appeal, affirming the Delaware Court of Chancery's finding that SIGA had breached certain contractual obligations to us, reversed its finding of promissory estoppel, and remanded the case back to the Delaware Court of Chancery to reconsider the remedy and award in light of the Delaware Supreme Court's opinion.

On August 8, 2014, the Delaware Court of Chancery issued a Memorandum Opinion and Order, or August 2014 Order, finding that we are entitled to receive lump sum expectation damages for the value of the Company's lost profits for Tecovirimat. In addition, the Delaware Court of Chancery found that the Company is entitled to receive pre-judgment interest and varying percentages of the Company's reasonable attorneys' and expert witness fees. On October 17, 2014, the Company and SIGA each filed opinions of our respective financial experts and Draft Orders and Judgments in accordance with the instructions of the August 2014 Order.

On September 16, 2014, SIGA announced that it filed a voluntary petition for relief under Chapter 11 of the United States Bankruptcy Code in the U.S. Bankruptcy Court for the Southern District of New York. In connection therewith, SIGA filed with the Bankruptcy Court an affidavit indicating, among other things, that it expects to continue to perform under its contract with BARDA. SIGA's petition for bankruptcy initiated a process whereby its assets are protected from creditors, including us.

On January 7, 2015, the Delaware Court of Chancery issued a letter Opinion and Order, directing the Company to submit a Revised Proposed Judgment that reflects a lump sum award of approximately \$113 million in contract expectation damages, plus pre-judgment interest on that amount from 2006 through the date of such order. In accordance with the instructions of the court, the Company submitted a draft Revised Proposed Judgment under seal on January 9, 2015.

On January 15, 2015, the Delaware Court of Chancery issued a Final Order and Judgment, finding that we are entitled to receive a lump sum award of \$194.6 million, or the Total Judgment, comprised of (1) expectation damages of \$113.1 million, for the value of the Company's lost profits for Tecovirimat, also known as ST-246<sup>®</sup> (formerly referred to as "Arestvyr<sup>™</sup>" and referred to by SIGA in its recent SEC filings as "Tecovirimat"), plus (2) pre-judgment interest on that amount from 2006 and varying percentages of the Company's reasonable attorneys' and expert witness fees, totaling \$81.5 million. Under the Final Order and Judgment, PharmAthene is also entitled to post-judgment simple interest. PharmAthene's entitlement to interest from and after SIGA's bankruptcy filing may be negatively impacted by the Bankruptcy Code. SIGA has filed a notice of appeal with the Delaware Supreme Court in which it challenges various findings of the Court of Chancery and seeks to set aside the Final Order and Judgment, and we have filed a notice of cross-appeal. As a result, the decision could be reversed, remanded or otherwise changed.

There can be no assurances if and when the Company will receive any payments from SIGA as a result of the Judgment. SIGA has stated publicly that it does not currently have cash sufficient to satisfy the award. It is also uncertain whether SIGA will have such cash in the future. PharmAthene's ability to collect the Judgment depends upon a number of factors, including SIGA's financial and operational success, which is subject to a number of significant risks and uncertainties (certain of which are outlined in SIGA's filings with the SEC), as to which we have limited knowledge and which we have no ability to control, mitigate or fully evaluate. For example, on December 24, 2014, SIGA announced that it expects to modify its contract with BARDA to reflect an increase in the provisional dosage of Tecovirimat and extended delivery schedule, subject to approval by the Bankruptcy Court. Furthermore, because SIGA has filed for protection under the federal bankruptcy laws, the Company is automatically stayed from taking any enforcement action in the Delaware Court of Chancery. By agreement of the parties, and with the approval of the Bankruptcy Court, the automatic stay has been lifted for the sole purpose of allowing the Delaware Court of Chancery to enter a money judgment and to allow the parties to exercise their appellate rights. The Company's ability to collect a money judgment from SIGA remains subject to further proceedings in the Bankruptcy Court.

**Item 4. Mine Safety Disclosures.**

Not applicable.

**PART II****Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.****Market**

Our common stock trades on the NYSE MKT (formerly NYSE Amex) under the symbol "PIP". The following table sets forth the range of high and low sales prices per share of our common stock on the NYSE MKT for the past two years during the periods shown.

<b>Fiscal Year 2014</b>	<b>High</b>	<b>Low</b>
4 <sup>th</sup> Quarter ended December 31	\$ 1.84	\$ 1.55
3 <sup>rd</sup> Quarter ended September 30	\$ 2.38	\$ 1.26
2 <sup>nd</sup> Quarter ended June 30	\$ 1.79	\$ 1.38
1 <sup>st</sup> Quarter ended March 31	\$ 2.09	\$ 1.80
<b>Fiscal Year 2013</b>	<b>High</b>	<b>Low</b>
4 <sup>th</sup> Quarter ended December 31	\$ 2.22	\$ 1.66
3 <sup>rd</sup> Quarter ended September 30	\$ 2.42	\$ 1.53
2 <sup>nd</sup> Quarter ended June 30	\$ 2.20	\$ 1.47
1 <sup>st</sup> Quarter ended March 31	\$ 2.05	\$ 1.02

**Holdings**

As of March 3, 2015, we had 68 record holders of our common stock. The number of record holders is based on the actual number of holders registered on the books of our transfer agent and does not reflect holders of shares in "street name" or persons, partnerships, associations, corporations or other entities identified in security position listings maintained by depository trust companies.

**Dividends**

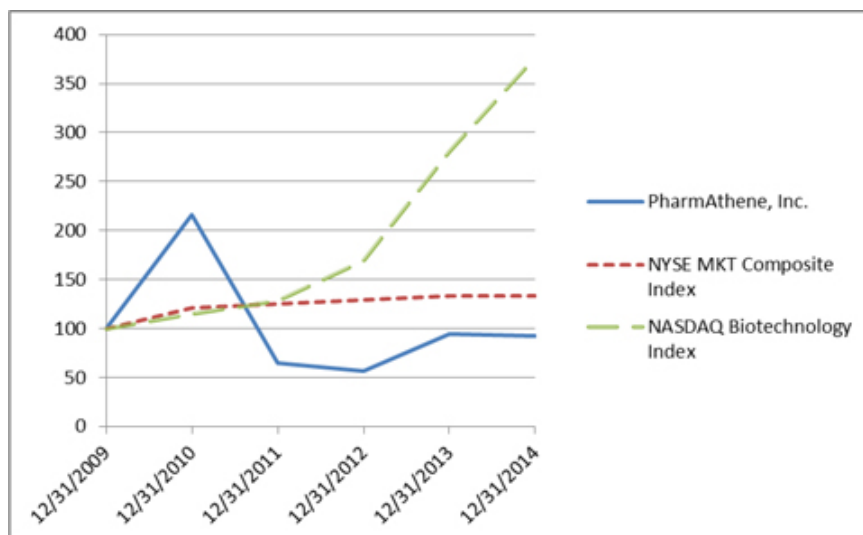
The GE Loan Agreement entered into in March 2012 specifically restricts the declaration or payment of any dividends. We have never paid any dividends on our common stock and do not intend to declare any dividends in the foreseeable future. We make no assurances that we will ever pay dividends, cash or otherwise. Whether we pay any dividends in the future will depend on our financial condition, results of operations, and other factors that the Board of Directors will consider.

## Performance Graph

The following line graph compares the cumulative total stockholder return through December 31, 2014, assuming reinvestment of dividends, by an investor who invested \$100 on December 31, 2009 in each of (i) our common stock, (ii) the NYSE MKT Composite Index; and (iii) the NASDAQ Biotechnology Index.

### COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN\*

Among PharmAthene, Inc., NYSE MKT Composite Index, and the NASDAQ Biotechnology Index



\* \$100 invested on 12/31/2009 in stock or index, including reinvestment of dividends. Fiscal year ending December 31.

	December 31,					
	2009	2010	2011	2012	2013	2014
PharmAthene, Inc.	\$ 100.00	\$ 215.83	\$ 64.80	\$ 57.15	\$ 94.90	\$ 92.35
NYSE MKT Composite Index	\$ 100.00	\$ 121.01	\$ 124.84	\$ 129.08	\$ 132.95	\$ 133.94
NASDAQ Biotechnology Index	\$ 100.00	\$ 115.01	\$ 128.59	\$ 169.61	\$ 280.89	\$ 376.68

The stock price performance included in this graph is not necessarily indicative of future stock price performance.

## Securities Authorized for Issuance Under Equity Compensation Plans

The information required by this Item concerning securities authorized for issuance under equity compensation plans is set forth in Item 12, "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters," which Item is incorporated herein by reference to our definitive proxy statement or an amendment to our annual report on Form 10-K to be filed within 120 days of our fiscal year end.

## Recent Sales of Unregistered Securities

None.

## Use of Proceeds

Not applicable.

## Purchases of Equity Securities

Not applicable.

## Item 6. Selected Financial Data.

You should read the following selected consolidated financial data together with our consolidated financial statements and the related notes included in this annual report on Form 10-K and the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of this annual report.

We have derived the consolidated statement of operations data for the years ended December 31, 2014, 2013, and 2012 and the consolidated balance sheet data as of December 31, 2014 and 2013 from our audited consolidated financial statements, which are included elsewhere in this annual report on Form 10-K. We have derived the consolidated statements of operations data for the years ended December 31, 2011 and 2010 and the consolidated balance sheet data as of December 31, 2012, 2011, and 2010 from our audited consolidated financial statements that are not included in this annual report on Form 10-K. Our historical results for any prior period are not indicative of results to be expected in any future period.

### Selected Financial Data

	Year Ended December 31,				
	2014	2013	2012	2011	2010
Statements of operations data:					
Revenue	\$ 10,190,205	\$ 17,912,607	\$ 25,175,887	\$ 24,266,274	\$ 20,993,605
Operating expenses:					
Research and development	9,319,828	15,290,142	19,509,629	21,219,853	20,875,536
General and administrative	10,911,724	13,279,186	11,628,732	14,311,079	18,015,761
Depreciation and amortization (including \$4,635,489 impairment charges in 2010)	149,958	182,487	303,916	461,073	5,655,865
Total operating expenses	20,381,510	28,751,815	31,442,277	35,992,005	44,547,162
Loss from operations	(10,191,305)	(10,839,208)	(6,266,390)	(11,725,731)	(23,553,557)
Other income (expense):					
Interest income	695	2,575	17,808	16,660	6,955
Interest expense	(211,094)	(369,281)	(342,561)	(54,573)	(5,936,480)
Change in fair value of derivative instruments	508,817	(444,622)	591,039	7,144,983	(5,457,550)
Other income (expense)	(762)	(6,071)	47,862	39,328	91,355
Realization of cumulative translation adjustment	-	-	1,227,656	-	-
Gain on the sale of assets held for sale	-	-	-	781,760	-
Total other income (expense)	297,656	(817,399)	1,541,804	7,928,158	(11,295,720)
Net loss before income taxes	(9,893,649)	(11,656,607)	(4,724,586)	(3,797,573)	(34,849,277)
Provision for income taxes	(61,746)	(61,746)	(195,529)	-	-
Net loss	\$ (9,955,395)	\$ (11,718,353)	\$ (4,920,115)	\$ (3,797,573)	\$ (34,849,277)
Basic and diluted net loss per share	\$ (0.17)	\$ (0.23)	\$ (0.10)	\$ (0.08)	\$ (1.08)
Weighted average shares used in calculation of basic and diluted net loss per share					
	57,535,325	50,659,116	48,323,067	47,331,763	32,309,621

**As of December 31,**

	<b>2014</b>		<b>2013</b>		<b>2012</b>		<b>2011</b>		<b>2010</b>
<b>Balance sheet data:</b>									
Cash and cash equivalents	\$ 18,643,351		\$ 10,480,979		\$ 12,701,517		\$ 11,236,771		\$ 11,785,327
Working capital	16,668,843		7,543,127		12,307,429		14,997,664		17,420,242
Total assets	21,978,241		17,139,289		22,741,404		22,803,509		27,199,045
Total long-term liabilities	1,122,307		3,007,596		3,579,148		2,336,361		8,824,853
Total stockholders' equity	18,274,145		7,335,712		11,673,840		15,851,806		12,210,705

**Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.**

*The following discussion should be read in conjunction with our consolidated financial statements, which present our results of operations for the years ended December 31, 2014, 2013 and 2012, as well as our financial positions at December 31, 2014 and 2013, contained elsewhere in this annual report on Form 10-K. Some of the information contained in this discussion and analysis or set forth elsewhere in this annual report, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. You should review the "Special Note Regarding Forward Looking Statements" and "Risk Factors" sections of this annual report for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.*

**Overview**

Since 2001, we have been a biodefense company engaged in the development of next generation medical counter measures against biological and chemical threats. During this time, we have devoted substantial effort and resources to the development of the prevention and treatment of anthrax infection and nerve agent poisoning. We have several biodefense candidates in our portfolio:

- Anthrax vaccines including SparVax<sup>®</sup>, a second generation liquid recombinant protective antigen anthrax vaccine, and a next generation lyophilized anthrax vaccine containing rPA;
- rBChE (recombinant butyrylcholinesterase) bioscavenger, a medical counter measure for nerve agent poisoning by organophosphorous compounds, including nerve gases and pesticides; and
- Valortim<sup>®</sup>, a fully human monoclonal antibody for the prevention and treatment of anthrax infection.

On January 15, 2015, the Delaware Court of Chancery issued a Final Order and Judgment, finding that we are entitled to receive a lump sum award of \$194.6 million, or the Total Judgment, comprised of (1) expectation damages of \$113.1 million, for the value of the Company's lost profits for Tecovirimat, also known as ST-246<sup>®</sup> (formerly referred to as "Arestvyr<sup>™</sup>" and referred to by SIGA in its recent SEC filings as "Tecovirimat"), plus (2) pre-judgment interest on that amount from 2006 and varying percentages of the Company's reasonable attorneys' and expert witness fees, totaling \$81.5 million. Under the Final Order and Judgment, PharmAthene is also entitled to post-judgment simple interest. PharmAthene's entitlement to interest from and after SIGA's bankruptcy filing may be negatively impacted by the Bankruptcy Code. SIGA has filed a notice of appeal with the Delaware Supreme Court in which it challenges various findings of the Court of Chancery and seeks to set aside the Final Order and Judgment, and we have filed a notice of cross-appeal. As a result, the decision could be reversed, remanded or otherwise changed.

There can be no assurances if and when the Company will receive any payments from SIGA as a result of the Judgment. SIGA has stated publicly that it does not currently have cash sufficient to satisfy the potential award. It is also uncertain whether SIGA will have such cash in the future. PharmAthene's ability to collect the Judgment depends upon a number of factors, including SIGA's financial and operational success, which is subject to a number of significant risks and uncertainties (certain of which are outlined in SIGA's filings with the SEC), as to which we have limited knowledge and which we have no ability to control, mitigate or fully evaluate. For example, on December 24, 2014, SIGA announced that it expects to modify its contract with BARDA to reflect an increase in the provisional dosage of Tecovirimat and extended delivery schedule, subject to approval by the Bankruptcy Court. Furthermore, because SIGA has filed for protection under the federal bankruptcy laws, PharmAthene is automatically stayed from taking any enforcement action in the Delaware Court of Chancery. By agreement of the parties, and with the approval of the Bankruptcy Court, the automatic stay has been lifted for the sole purpose of allowing the Delaware Court of Chancery to enter a money judgment and to allow the parties to exercise their appellate rights. The Company's ability to collect a money judgment from SIGA remains subject to further proceedings in the Bankruptcy Court. See "Part I - Item 1.B. Risk Factors – Risks Relating to Our Financial Condition - Even though the Delaware Court of Chancery has found that we are entitled to receive lump sum expectation damages for the value of our lost profits for Tecovirimat, this decision is subject to appeal, which precludes the current calculation of a predictable value of the SIGA litigation. Uncertainties also include SIGA's recent filing for relief under Chapter 11 of the United States Bankruptcy Code, initiating a process that protects its assets from creditors, including us" and "Part I – Item 3. Legal Proceedings," the contents of which are incorporated herein by reference.

On March 9, 2015, our Board of Directors approved our Realignment Plan with the goal of preserving and maximizing, for the benefit of our stockholders, the value of any proceeds from the SIGA litigation and our existing biodefense assets. The plan eliminates approximately two-thirds of our workforce or twenty three employees and is aimed at the preservation of cash and cash equivalents sufficient to finance our continued operations through a period of time expected to extend beyond the adjudication of SIGA's appeal. We intend to maintain sufficient resources and personnel so that we can seek partners, co-developers or acquirers for our biodefense programs and continue to execute under our government contract with NIAID.

We can offer no assurances that we have correctly estimated the resources or personnel necessary to seek partners, co-developers or acquirers for our biodefense programs or execute under our NIAID contract. If a larger workforce or one with a different skillset is ultimately required to implement our Realignment Plan successfully, we may be unable to maximize the value of the SIGA litigation and our existing biodefense assets. In addition, all of our current executive officers, who have served the Company for a combined 37 years, are being terminated, and, with the exception of Mr. Richman's continued service on the Board, will no longer be available to guide the Company. We also cannot assure you that we have accurately estimated the cash and cash equivalents necessary to finance our operations until SIGA's appeal has been adjudicated and we have received SIGA's payment. If revenues from our NIAID contract are less than we anticipate, if operating expenses exceed our expectations or cannot be adjusted accordingly, or if we have underestimated the time it will take for us to prevail in SIGA's appeal, or enforce payment of or collect the damages award from SIGA, then our business, results of operations, financial condition and cash flows will be materially and adversely affected.

### **Critical Accounting Policies**

A "critical accounting policy" is one that is both important to the portrayal of our financial condition and results of operations and that requires management's most difficult, subjective or complex judgments. Such judgments are often the result of a need to make estimates about the effect of matters that are inherently uncertain. The preparation of our financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from those estimates.

A summary of our critical accounting policies, including those that require the use of significant estimates and judgment, follows. A more comprehensive description of all of our significant accounting policies is contained in Note 2 to our Consolidated Financial Statements.

### **Revenue Recognition**

Our revenue comes from primarily two types of contractual arrangements, which are cost-plus-fee contracts and fixed price contracts. Reimbursable grants may fall into either category. Revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred or services have been rendered, the seller's price to the buyer is fixed or determinable, and collectability is reasonably assured.

Revenues on cost-plus-fee contracts are recognized as an amount equal to cost plus a proportion of the applicable fee as per the contract. Fee is either recognized as a fixed fee, earned based on the ratio of work done to total cost or as a milestone fee. Milestone fee revenue is recognized when the related work is completed.

Milestones are considered substantive if all of the following conditions are met:

- it is commensurate with either our performance to meet the milestone or the enhancement of the value of the delivered item or items as a result of a specific outcome resulting from our performance to achieve the milestone,
- it relates solely to past performance, and
- the value of the milestone is reasonable relative to all the deliverables and payment terms (including other potential milestone consideration) within the arrangement.

If a milestone is deemed not to be substantive, the Company recognizes the portion of the milestone payment as revenue that correlates to work already performed; the remaining portion of the milestone payment is deferred and recognized as revenue as the Company completes its performance obligations.

Revenue on fixed price contracts (without substantive milestones as described above) is recognized on the percentage-of-completion method. The percentage-of-completion method recognizes revenue as the contract progresses based on the total costs expended as compared to an estimate of the total costs on the contract. The use of the percentage-of-completion method depends on the ability to make reasonable dependable estimates and the fact that circumstances may necessitate frequent revision of estimates does not indicate that the estimates are unreliable for the purpose for which they are used.



Revenue on fixed price contracts with substantive milestones as described above is recognized as each milestone is achieved. Revenue may be recognized upon completion of the contract, when substantive delivery is achieved, transfer of title takes place and payment is reasonably assured.

As a result of our revenue recognition policies and the billing provisions contained in our contracts, the timing of customer billings may differ from the timing of recognizing revenue. Amounts recognized as revenue in excess of amounts billed to customers are reflected on the balance sheet as unbilled accounts receivable. Amounts invoiced to customers in excess of revenue recognized are reflected on the balance sheet as deferred revenue.

We analyze each cost reimbursable grant to determine whether we should report such reimbursements as revenue or as an offset to our expenses incurred. For the year ended December 31, 2014 we did not record any reimbursements from cost reimbursable grants. For the years ended December 31, 2013 and 2012, we recorded approximately \$0.02 million and \$1.1 million, respectively, of costs reimbursed by the government as an offset to research and development expenses.

### ***Share-Based Payments***

We have a long-term incentive compensation plan, or LTIP, under which options to purchase shares of our common stock may be granted to employees, consultants and nonemployee directors at a price no less than the quoted market value on the date of grant. The LTIP also provides for awards in the form of stock appreciation rights, restricted or unrestricted stock awards, stock-equivalent units or performance-based stock awards.

We account for share-based awards to employees, consultants and non-employee directors at fair value. The amount of compensation expense recognized using the fair value method requires us to exercise judgment and make assumptions relating to the factors that determine the fair value of our stock option grants. We use the Black-Scholes model to estimate the fair value of our option grants. The fair value calculated by this model is a function of several factors, including grant price, the risk-free interest rate, the expected term of the option and the anticipated volatility of the option.

### ***Goodwill***

We continually assess the realizability and recoverability of our goodwill. These assessments contain substantial judgment in determining the fair value of such assets and with respect to future usage of the assets and potential cash flows associated with them.

### ***Financial Instruments***

Our financial instruments, and/or embedded features contained in those instruments, often are classified as derivative liabilities and are recorded at their fair values. The determination of fair value of these instruments and features requires estimates and judgments. Certain of our stock purchase warrants are considered to be derivative liabilities due to the presence of net settlement features and/or non-standard anti-dilution provisions. Generally the fair value of our warrants is determined based on the Black-Scholes option pricing model. Use of the Black-Scholes option-pricing model requires the use of unobservable inputs such as the expected term, anticipated volatility and expected dividends.

## Results of Operations

### Year Ended December 31, 2014 Compared to December 31, 2013

#### Revenue

We recognized revenue of \$10.2 million and \$17.9 million during the years ended December 31, 2014 and 2013, respectively.

Revenue (\$ in millions)	Year ended December 31,		
	2014	2013	% Change
SparVax <sup>®</sup> and next generation anthrax vaccine	\$ 8.7	\$ 15.5	(43.9)%
rBChE bioscavenger	0.5	2.4	(79.2)%
Valortim <sup>®</sup>	1.0	-	100.0%
Total revenue	<u>\$ 10.2</u>	<u>\$ 17.9</u>	<u>(43.0)%</u>

Our revenue was derived from contracts with the U.S. Government for the development of SparVax<sup>®</sup>, our rBChE bioscavenger, and Valortim<sup>®</sup>. Our revenue changed in 2014 from 2013 primarily due to the following:

Under our contract for the development of (the liquid second generation rPA) SparVax<sup>®</sup> with BARDA, we recognized approximately \$8.1 million and \$15.5 million of revenue for the years ended December 31, 2014 and 2013, respectively. During 2014, revenue was primarily attributable to completion of Final Drug Product stability testing and a non-clinical animal study and ongoing activities necessary to close out the BARDA contract. Milestone revenue for 2014 was \$0.3 million. During 2014, we also received the payment of \$2.1 million in fixed fee provided for under the SparVax<sup>®</sup> development contract as a result of the contract's partial termination. During 2013, revenue was primarily attributable to chemistry, manufacturing, and controls, or CMC, work, non-clinical animal studies, and limited clinical trial pre-study activities. Milestone revenue for 2013 was \$0.4 million.

On April 4, 2014, we received notification from BARDA, advising us of its decision to de-scope the SparVax<sup>®</sup> anthrax vaccine contract through a partial termination for convenience. BARDA subsequently provided guidance authorizing the completion of six discrete activities under the contract. All other activities were de-scoped, including the proposed Phase 2 clinical trial. We do not expect that we will receive additional funding from BARDA for the further development of SparVax<sup>®</sup> as a liquid product. Therefore, we anticipate that revenues for this program in 2015 will be significantly less than in 2014.

In 2014, BARDA audited indirect costs or rates charged by us on the SparVax<sup>®</sup> contract for the years 2008 through 2013. While we do not currently believe the results of this audit will have an adverse effect on the Company, we cannot provide assurances that it will not have such an effect. PharmAthene has billed and recognized revenue using the provisional rates as defined in the contract. While the rates audited by BARDA, which reflect the actual costs incurred by us, have been higher, we have no assurance on either the amount of additional funds we may receive as a result of these higher rates or the amount of time it may take to recover these funds. The amount of any such funds is determined as a result of negotiations with BARDA.

On September 9, 2014, we signed a contract with NIAID for the development of a next generation lyophilized anthrax vaccine based on the Company's proprietary technology platform which contributes the rPA bulk drug substance that is used in the liquid SparVax<sup>®</sup> formulation. Under this agreement, in 2014 we recognized \$0.6 million in revenue. The contract is incrementally funded. Over the base period of the agreement, we were awarded initial funding of approximately \$5.2 million, which includes a cost reimbursement component and a fixed fee component payable upon achievement of certain milestones. The contract has a total value of up to approximately \$28.1 million, if all technical milestones are met and all eight contract options are exercised by NIAID. NIAID may exercise the options in its sole discretion. If NIAID exercises all options, the contract would continue for approximately five years. If NIAID does not exercise any options, the contract would expire by its terms on January 5, 2016.

- Under our contract with Chemical Biological Medical Systems, or CBMS, for our second generation rBChE bioscavenger, we recognized approximately \$0.5 million and \$2.4 million for the years ended December 31, 2014 and 2013, respectively. In 2014, our activities were focused on the execution and completion of planned pharmacokinetic, or PK, non-clinical studies, while in 2013, we completed process development work and material generation activities and continued to execute activities to support non-clinical studies. The decrease in revenue is attributable to a decision by CBMS to remove the efficacy studies originally planned under this contract and the expiration of the period of performance under this contract on September 30, 2014. Unless we are able to secure additional funding for our rBChE bioscavenger development program, we anticipate that revenues for this program in future periods will be significantly less than in the past. We do not foresee any additional funding for this program and expect that revenues from this program in the future will be minimal.
- With respect to our Valortim<sup>®</sup> development program, we recognized \$1.0 million of revenue in 2014 compared to no revenue in 2013. Under the fixed price order awarded by BARDA in 2013 for Valortim<sup>®</sup>, which is an indefinite delivery, indefinite quantity, or “IDIQ” contract, delivery was made in the fourth quarter of 2014. Additional government funding has not been awarded for the development of Valortim<sup>®</sup>. We do not foresee any additional funding for this program and expect that revenues from this program in the future will be minimal.

### Research and Development Expenses

Our research and development expenses were \$9.3 million and \$15.3 million for the years ended December 31, 2014 and 2013, respectively, representing a year-over-year decrease of \$6.0 million, or 39.2%. Expenses from research and development activities in both periods related primarily to our SparVax<sup>®</sup> and rBChE bioscavenger programs. Direct expenses included salaries and other costs of personnel, raw materials and supplies, and an allocation of indirect expenses. We also incurred third-party costs, such as contract research, consulting and clinical development costs for individual projects. Research and development expenses for the years ended December 31, 2014 and 2013 were net of cost reimbursements under certain of our government grants of \$0.0 million and \$0.02 million, respectively. Research and development expenses for 2013 were also net of the receipt of approximately \$0.5 million, the result of the settlement of a lawsuit filed against a vendor.

Research and development expenses for the years ended December 31, 2014 and 2013 were attributable to research programs as follows:

Expenses (\$ in millions)	Year Ended December 31,		
	2014	2013	% Change
SparVax <sup>®</sup> , next generation anthrax vaccine and Valortim <sup>®</sup>	\$ 8.9	\$ 13.7	(35.0)%
rBChE bioscavenger	0.4	1.6	(75.0)%
Total research and development expenses	\$ 9.3	\$ 15.3	(39.2)%

For the year ended December 31, 2014, research and development expenses decreased \$6.0 million from 2013, primarily due to decreased costs related to our BARDA sponsored SparVax<sup>®</sup> program, as a result of BARDA’s de-scoping of the contract and the change in scope from manufacturing to non-clinical studies for the rBChE bioscavenger program. The decrease in the rBChE bioscavenger expenses is due to the expiration of the period of performance under this contract on September 8, 2014 and the decision by CBMS to remove the efficacy studies originally planned under this contract.

### General and Administrative Expenses

General and administrative functions include executive management, finance and administration, government affairs and regulations, corporate development, human resources, legal, and compliance. For each function, we may incur expenses such as salaries, supplies and third-party consulting and other external costs and non-cash expenditures such as expense related to stock option and restricted share awards. An allocation of indirect costs such as facilities, utilities and other administrative overhead is also included in general and administrative expenses.

General and administrative expenses decreased by \$2.4 million, or 18.0%, to \$10.9 million for the year ended December 31, 2014, from \$13.3 million for 2013. The reduction in expenses is primarily due to a reduction in merger and acquisition expenses, partially offset by increased share-based compensation expenses and severance costs. On July 1, 2013, we entered into an agreement and a plan of merger with Theraclone Sciences, Inc. On December 1, 2013, we terminated the merger agreement with Theraclone Sciences, Inc.

#### **Other Income (Expense)**

Other income (expense) primarily consists of changes in the fair value of our derivative financial instruments and interest expense on our debt and other financial obligations.

Other income was \$0.3 million during the year ended December 31, 2014, compared to \$0.8 million in other expense during the year ended December 31, 2013, resulting in a change in other expense of approximately \$1.1 million, or 136.4%. The change was primarily the result of the \$0.9 million change in the fair value of derivative instruments, from an unrealized loss of \$0.4 million to an unrealized gain of \$0.5 million, for the years ended December 31, 2013 and 2014, respectively.

#### **Income Taxes**

The provision for income taxes was \$0.1 million during the years ended December 31, 2014 and 2013. Our provision for income taxes results from the difference between the treatment of goodwill for income tax purposes and for U.S. GAAP purposes.

#### **Year Ended December 31, 2013 Compared to December 31, 2012**

##### **Revenue**

We recognized revenue of \$17.9 million and \$25.2 million during the years ended December 31, 2013 and 2012, respectively.

Revenue (\$ in millions)	Year ended December 31,		
	2013	2012	% Change
SparVax <sup>®</sup>	\$ 15.5	\$ 22.9	(32.3)%
rBChE bioscavenger	2.4	1.8	33.3%
Valortim <sup>®</sup>	-	0.5	(100.0)%
Total revenue	\$ 17.9	\$ 25.2	(29.0)%

Our revenue was derived primarily from contracts with the U.S. Government for the development of SparVax<sup>®</sup> and our rBChE bioscavenger. Our revenue changed in 2013 from 2012 primarily due to the following:

- Under our contract for the development of SparVax<sup>®</sup>, we recognized approximately \$15.5 million and \$22.9 million of revenue for years ended December 31, 2013 and 2012, respectively, a decrease of \$7.4 million, or 32.3%, from 2012. During 2013 revenue was primarily attributable to chemistry, manufacturing, and controls, or CMC, work, non-clinical animal studies, and limited clinical trial pre-study activities. Milestone revenue for 2013 was \$0.4 million. During 2012 revenue for the SparVax<sup>®</sup> program was primarily attributable to CMC work, certain non-clinical activities and limited clinical trial pre-study activities. Milestone revenue in 2012 was \$2.2 million. The decrease in revenue for 2013 compared to 2012 reflects lower overall development activity in 2013 partially as a result of the two FDA clinical holds imposed in August 2012 and in December 2013. For more recent developments and trends relating to the SparVax<sup>®</sup> program, please refer to “- Year Ended December 31, 2014 Compared to Year Ended December 31, 2013.”
- Under our contract for our second generation rBChE bioscavenger, we recognized approximately \$2.4 million and \$1.8 million of revenue for the years ended December 31, 2013 and 2012, respectively, an increase of \$0.6 million, or 33.3%, from 2012. In 2012 our activities related to the establishment of final clones, genetic stability and fed batch evaluation to establish the bioreactor conditions for manufacturing, while in 2013 we completed process development work and material generation activities and continued to execute activities to support non-clinical studies. For more recent developments and trends relating to the rBChE bioscavenger program, please refer to “- Year Ended December 31, 2014 Compared to Year Ended December 31, 2013.”

With respect to our Valortim<sup>®</sup> development program, we recognized no revenue in 2013 as compared to \$0.5 million in 2012, as our development contract expired in 2012. For more recent developments and trends relating to the Valortim<sup>®</sup> program, please refer to “- Year Ended December 31, 2014 Compared to Year Ended December 31, 2013.”

### Research and Development Expenses

Our research and development expenses were \$15.3 million and \$19.5 million for the years ended December 31, 2013 and 2012, respectively, a decrease of \$4.2 million, or 21.5%, from 2012. Expenses from research and development activities in both periods related primarily to our SparVax<sup>®</sup> and rBChE bioscavenger programs. Direct expenses included salaries and other costs of personnel, raw materials and supplies, and an allocation of indirect expenses. We also incurred third-party costs, such as contract research, consulting and clinical development costs for individual projects. Research and development expenses for 2013 were net of the receipt of approximately \$0.5 million, the result of the settlement of a lawsuit filed against a vendor. Research and development expenses for the years ended December 31, 2013 and 2012 were net of cost reimbursements under certain of our government grants of \$0.02 million and \$1.1million, respectively.

Research and development expenses for the years ended December 31, 2013 and 2012 were attributable to research programs as follows:

Expenses (\$ in millions)	Year Ended December 31,		
	2013	2012	% Change
SparVax <sup>®</sup> and Valortim <sup>®</sup>	\$ 13.7	\$ 18.4	(25.5)%
rBChE bioscavenger	1.6	1.1	45.5%
Total research and development expenses	\$ 15.3	\$ 19.5	(21.5)%

For the year ended December 31, 2013, research and development expenses decreased \$4.2 million from 2012, primarily due to (i) the receipt in the 2013 period of approximately \$0.5 million, the result of the settlement of a lawsuit filed against a vendor and (ii) decreased costs related to our SparVax<sup>®</sup> contract with BARDA, resulting from reduced overall development activity in 2013, partially as a result of the FDA’s two clinical holds imposed in August 2012 and December 2013. These reductions in cost were partially offset by increased costs in our rBChE bioscavenger program.

### General and Administrative Expenses

General and administrative functions include executive management, finance and administration, government affairs and regulations, corporate development, human resources, legal, and compliance. For each function, we may incur expenses such as salaries, supplies and third-party consulting and other external costs and non-cash expenditures such as expense related to stock option and restricted share awards. An allocation of indirect costs such as facilities, utilities and other administrative overhead is also included in general and administrative expenses.

General and administrative expenses increased by \$1.7 million, or 14.7%, to \$13.3 million for the year ended December 31, 2013, from \$11.6 million for 2012. The increase in expenses during 2013 was due to \$3.3 million in merger transactions costs related to the terminated merger with Theraclone Sciences, Inc., which were partially offset by reduced labor and associated share-based compensation costs as well as decreased professional fees.

### ***Other Income (Expense)***

Other income (expense) primarily consists of changes in the fair value of our derivative financial instruments, income related to the realization of the cumulative translation adjustment, and interest expense on our debt and other financial obligations.

Other expense was \$0.8 million in the year ended December 31, 2013, compared to other income of \$1.5 million in 2012, resulting in a change in other income (expense) of approximately \$2.3 million, or 153.3%. The change was primarily the result of (i) the \$1.0 million change in the fair value of derivative instruments, from an unrealized gain of \$0.6 million to an unrealized loss of \$0.4 million, for the year ended December 31, 2012 and 2013, respectively and (ii) as a result of substantially completing the liquidation of our Canadian subsidiary in July 2012, which resulted in the recognition of approximately \$1.2 million of income in our condensed consolidated statement of operations, which represents the amount of previously recorded foreign currency translation adjustments related to our Canadian subsidiary.

### ***Income Taxes***

The provision for income taxes was \$0.1 million and \$0.2 million during the years ended December 31, 2013 and 2012, respectively, a decrease of approximately \$0.1 million. Our provision for income taxes results from the difference between the treatment of goodwill for income tax purposes and for U.S. GAAP.

### ***Liquidity and Capital Resources***

#### ***Overview***

Our primary source of cash during 2014 were proceeds from sales of shares of our common stock under our controlled equity offering arrangement, which we commenced in March 2013 and amended in May 2014. Our primary source of cash during 2013 were proceeds from sales of shares of our common stock under the controlled equity offering arrangement, in addition to amounts received under our development contract for SparVax<sup>®</sup>. Our cash and cash equivalents were \$18.6 million and \$10.5 million at December 31, 2014 and 2013, respectively.

As noted above, on April 4, 2014, we received notification from BARDA, advising us of its decision to de-scope the SparVax<sup>®</sup> anthrax vaccine contract through a partial termination for convenience. We currently do not expect that we will receive additional funding from BARDA for the further development of SparVax<sup>®</sup> as a liquid product. Therefore, we anticipate that revenues for this program in 2015 will be significantly less than in 2014. Furthermore, during 2014, BARDA audited previous years of indirect costs charged by us on this contract. Depending on the outcome of the audit, the revenue we receive in 2015 for work previously completed under the SparVax<sup>®</sup> program is uncertain.

With the de-scoping of the SparVax<sup>®</sup> anthrax vaccine contract, currently, our sole sources of revenue consist of (1) revenues for work previously completed under the SparVax<sup>®</sup> contract (which remain subject to audit as described above) and (2) revenues under our September 2014 agreement with NIAID for the development of a next generation lyophilized anthrax vaccine based on the Company's proprietary technology platform which contributes the rPA bulk drug substance that is used in the liquid SparVax<sup>®</sup> formulation. The NIAID agreement is incrementally funded. Over the base period of the agreement, we were awarded initial funding of approximately \$5.2 million, which includes a cost reimbursement component and a fixed fee component payable upon achievement of certain milestones. The contract has a total value of up to approximately \$28.1 million, if all technical milestones are met and all eight contract options are exercised by NIAID. NIAID may exercise the options in its sole discretion. If NIAID exercises all options, the contract would continue approximately five years. If NIAID does not exercise any of the options, the contract would expire by its terms on January 5, 2016. Due to the current economic environment, the U.S. Government may be forced or choose to reduce or delay spending in the biodefense field, which would decrease the likelihood that the government will exercise its right to extend its existing contract with us, the likelihood of future government contract awards, and/or the likelihood that the government would procure products from us.

We have incurred significant losses since we commenced operations. As of December 31, 2014, we had accumulated losses of \$220.3 million since our inception, and had net losses of approximately \$10.0 million, \$11.7 million and \$4.9 million during the last three years, respectively. While we have undertaken efforts to reduce expenses, and expect that our operating expenses will continue to decrease as a result of our Realignment Plan, we expect increased losses in the future. If we continue to incur losses and are not able to raise adequate funds to cover those losses, we may be required to cease operations.

Historically, we have not generated positive cash flows from operations. To bridge the gap between payments made to us under our U.S. Government contracts and grants and our operating and capital needs, we have had to rely on a variety of financing sources, including the issuance of equity and equity-linked securities and proceeds from loans and other borrowings. On March 25, 2013, we entered into a controlled equity offering arrangement pursuant to which we could offer and sell, from time to time, through a sales agent, shares of our common stock having an aggregate offering price of up to \$15.0 million, which we later amended on May 23, 2014 to increase the offering amount by \$15.0 million. During 2014, we generated net proceeds of approximately \$17.8 million under the controlled equity offering sales agreement, as amended. Since December 31, 2014, we have not generated any proceeds under the controlled equity offering sales agreement, as amended. Aggregate gross proceeds of up to \$3.0 million remain available under this arrangement.

We currently owe GE Capital an aggregate of approximately \$0.8 million under our Loan Agreement with them. This amount is payable at maturity in September 2015. As a result of the notification from BARDA on April 4, 2014 advising us of its decision to de-scope the SparVax<sup>®</sup> anthrax vaccine contract through a partial termination for convenience, GE Capital could assert that there has occurred an event of default under the Loan Agreement, which would allow GE Capital to terminate the commitment and the loans under the Loan Agreement and declare any or all of the obligations thereunder to be immediately due and payable. We have not received notice from GE Capital that an event of default has occurred.

On March 9, 2015, our Board of Directors approved our Realignment Plan with the goal of preserving and maximizing, for the benefit of our stockholders, the value of any proceeds from the SIGA litigation and our existing biodefense assets. The plan eliminates approximately two-thirds of our workforce or twenty three employees and is aimed at the preservation of cash and cash equivalents sufficient to finance our continued operations through a period of time expected to extend beyond the adjudication of SIGA's appeal. We intend to maintain sufficient resources and personnel so that we can seek partners, co-developers or acquirers for our biodefense programs and continue to execute under our government contract with NIAID. The Company estimates total severance payments to executives and non-executives in connection with the Realignment Plan to amount to approximately \$2 million, with substantially all such severance expenses expected to be paid in 2015.

We can offer no assurances that we have correctly estimated the resources or personnel necessary to seek partners, co-developers or acquirers for our biodefense programs or execute under our NIAID contract. If a larger workforce or one with a different skillset is ultimately required to implement our Realignment Plan successfully, we may be unable to maximize the value of the SIGA litigation and our existing biodefense assets. In addition, all of our current executive officers, who have served the Company for a combined 37 years, are being terminated, and, with the exception of Mr. Richman's continued service on the Board, will no longer be available to guide the Company. We also cannot assure you that we have accurately estimated the cash and cash equivalents necessary to finance our operations until SIGA's appeal has been adjudicated and we have received SIGA's payment. If revenues from our NIAID contract are less than we anticipate, if operating expenses exceed our expectations or cannot be adjusted accordingly, or if we have underestimated the time it will take for us to prevail in SIGA's appeal, or enforce payment of or collect the damages award from SIGA, then our business, results of operations, financial condition and cash flows will be materially and adversely affected.

In addition, we may voluntarily elect to raise additional capital to strengthen our financial position. There can be no assurances that we would be successful in raising additional funds on acceptable terms or at all. Additional sales of common stock may be made at prices that are dilutive to existing stockholders.

### Cash Flows

The following table provides information regarding our cash flows for the years ended December 31, 2014, 2013 and 2012.

	Year Ended December 31,		
	2014	2013	2012
Net cash provided by (used in):			
Operating activities	\$ (8,474,042)	\$ (7,168,204)	\$ (2,322,906)
Investing activities	(84,269)	(81,079)	67,400
Financing activities	16,733,524	5,030,127	3,720,071
Effects of exchange rates on cash	(12,841)	(1,382)	181
Total increase (decrease) in cash and cash equivalents	<u>\$ 8,162,372</u>	<u>\$ (2,220,538)</u>	<u>\$ 1,464,746</u>

### Sources and Uses of Cash

Cash and cash equivalents were \$18.6 million, \$10.5 million and \$12.7 million at December 31, 2014, 2013 and 2012, respectively. The \$8.1 million increase from 2013 to 2014 is primarily due to the \$18.1 million in net proceeds raised under the controlled equity offering arrangement and \$0.7 million from warrant exercises, partially offset by the \$2.1 million repayment of the GE loans and the cash loss from operating activities of \$8.5 million. The \$2.2 million decrease at December 31, 2013 compared to December 31, 2012 was primarily attributable to \$7.2 million of cash used in operations, which includes approximately \$3.0 million in cash paid in connection with our terminated merger agreement with Theraclone, and \$0.8 million repayment of the current portion of long-term debt and \$0.2 million net repayment of the revolving credit agreement, partially offset by \$6.0 million in net proceeds raised under the controlled equity offering.

### ***Operating Activities***

Net cash used by operating activities was approximately \$8.5 million, \$7.2 million and \$2.3 million for the years ended December 31, 2014, 2013 and 2012, respectively.

Net cash used by operating activities during 2014 primarily reflects our net loss of \$10.0 million, adjusted for \$1.7 million for non-cash share-based compensation expense, \$0.5 million for the increase in the fair value of derivative instruments and \$0.3 million for other non-cash expenses.

Net cash used by operating activities during 2013 reflects our net loss of \$11.7 million, adjusted for \$1.4 million for non-cash share-based compensation expense, \$0.4 million for the increase in the fair value of derivative instruments and \$0.4 million for other non-cash expenses. A decrease in receivables (billed and unbilled) of \$2.9 million and prepaid expense and other current assets of \$0.3 million and an increase in accrued expenses and other liabilities of \$0.8 million was partially offset by a decrease in accounts payable of \$0.6 million and deferred revenue of \$1.0 million.

Net cash used in operations during the year ended December 31, 2012 reflects our net loss of \$4.9 million, adjusted for non-cash share-based compensation expense of \$1.9 million, the \$1.2 million gain on the realization of the cumulative translation adjustment related to PharmAthene Canada, Inc., the decrease in the fair value of derivative instruments of \$0.6 million and other noncash expenses of \$0.6 million. The decrease in accounts receivable of approximately \$2.0 million and increase in deferred revenue of approximately \$0.9 million was partially offset by an increase in unbilled accounts receivable of approximately \$1.1 million.

Unless we are able to secure new contracts and orders from the U.S. Government to fund additional development activities for our programs and for eventual procurement of our products, we anticipate cash generated by contracts will be significantly lower in 2015 than in prior periods.

### ***Investing Activities***

There were no significant investing activities for the years ended December 31, 2014, 2013 and 2012, respectively.

### ***Financing Activities***

Net cash provided by financing activities was \$16.7 million for the year ended December 31, 2014, as compared to \$5.0 million for the year ended December 31, 2013 and \$3.7 million for the year ended December 31, 2012.

The \$11.7 million increase from 2013 to 2014 is primarily due to the \$18.1 million in net proceeds raised under the controlled equity offering arrangement and \$0.7 million from warrant exercises, partially offset by the \$2.1 million repayment of the GE loans.

Net cash provided by financing activities for the year ended December 31, 2013 of \$6.0 million was principally the result of net proceeds received from sales of our stock under the controlled equity offering arrangement partially offset by the repayment of the current portion of long-term debt and net repayment of the revolving credit agreement. The term loan of \$1.8 million and approximately \$1.1 million under the revolving line of credit were outstanding as of December 31, 2013.

The majority of our cash provided by financing for the year ended December 31, 2012 related to our debt arrangements with GE Capital, as described in Note 6 to our Consolidated Financial Statements. The term loan of \$2.5 million and approximately \$1.3 million under the revolving line of credit were outstanding as of December 31, 2012.

On March 25, 2013, we entered into a controlled equity offering sales agreement with a sales agent, and filed with the SEC a prospectus supplement, dated March 25, 2013, to our prospectus, dated July 27, 2011, or the 2011 Prospectus, pursuant to which we could offer and sell, from time to time, through the agent shares of our common stock having an aggregate offering price of up to \$15.0 million. On May 23, 2014, we entered into an amendment, or the 2014 Amendment, to the controlled equity offering sales agreement with the sales agent, pursuant to which we may offer and sell, from time to time, through the agent shares of our common stock having an aggregate offering price of up to an additional \$15.0 million. On that day, we filed a prospectus supplement to the 2011 Prospectus for use in any sales of these additional shares of common stock through July 26, 2014, the date the underlying registration statement (File No. 333-175394) expired. As a result of this expiration, the 2011 Prospectus, as supplemented on March 25, 2013 and May 23, 2014, may no longer be used for the sale of shares of common stock under the controlled equity offering sales agreement, as amended.



On May 23, 2014, we also filed a new universal shelf registration statement (File No. 333-196265) containing, among other things, a prospectus, or the 2014 Prospectus, for use in sales of the common stock under the 2014 Amendment. This registration statement was declared effective on May 30, 2014. Since the expiration of the 2011 Prospectus, all sales under the controlled equity offering sales agreement, as amended, have been effected under the 2014 Prospectus.

Under the controlled equity offering sales agreement, as amended, the agent may sell shares by any method permitted by law and deemed to be an “at-the-market” offering as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, including sales made directly on NYSE MKT, or any other existing trading market for our common stock or to or through a market maker. Subject to the terms and conditions of that agreement, the agent will use commercially reasonable efforts, consistent with its normal trading and sales practices and applicable state and federal law, rules and regulations and the rules of NYSE MKT, to sell shares from time to time based upon our instructions. We are not obligated to sell any shares under the arrangement. We are obligated to pay the agent a commission of 3.0% of the aggregate gross proceeds from each sale of shares under the arrangement.

During 2014, we generated net proceeds of approximately \$18.1 million under the controlled equity offering sales agreement, as amended. Aggregate gross proceeds of up to \$3.0 million remain available under this arrangement.

#### Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements.

#### Contractual Obligations

The following are contractual commitments at December 31, 2014:

Contractual Obligations <sup>(1)</sup>	Total	Less than 1 Year	1-3 Years	3-5 Years	More than 5 Years
Operating facility leases	\$ 2,028,766	\$ 823,582	\$ 1,205,184	\$ -	\$ -
Research and development agreements	2,107,383	2,107,383	-	-	-
Term loan, principal and interest payments	782,728	782,728	-	-	-
Total contractual obligations	\$ 4,918,877	\$ 3,713,693	\$ 1,205,184	\$ -	\$ -

- (1) This table does not include any royalty payments relating to any future sales of products subject to license agreements we have entered into in relation to our in-licensed technology, as the timing and likelihood of such payments are not known. The table also excludes any obligations related to registration rights agreements, as a result of a maintenance failure (as defined in such agreements), as the likelihood of any such payment is not probable. In addition, the table does not include the final payment fee on the term loan, which is being accrued and expensed over the term of the agreement, using the effective interest method, or the debt discount, which is being amortized over the term of the agreement.

#### Item 7A. Quantitative and Qualitative Disclosures about Market Risk.

Our exposure to market risk is currently confined to our cash and cash equivalents and our revolving line of credit. We currently do not hedge interest rate exposure or foreign currency exchange exposure. We have not used derivative financial instruments for speculation or trading purposes.

The Company's current operations in foreign countries are minimal. We have closed our operations in Canada and maintain only nominal operations in the United Kingdom. A 10% change in exchange rates (against the U.S. dollar) would not have a material impact on earnings, fair values or cash flow.

Because of the short-term maturities of our cash and cash equivalents, we do not believe that an increase in market interest rates would have a significant impact on their realized value. Our term loan with GE Capital is at a fixed 10.14% rate. Because of the fixed rate, a change in market interest rates would not have a material impact on interest expense associated with the loan. The interest rate on the revolving line of credit is variable; therefore, a 1% increase in market interest rates above the interest rate floor of 1.5%, would increase interest expense associated with the line by \$50,000 if the maximum amount of the line (\$5.0 million) was drawn for a full year.

The change in fair value of our derivative instruments is calculated utilizing the Black-Scholes model; therefore, a 10% increase/decrease in the closing price of our common stock at December 31, 2014, would have resulted in a change in fair value of derivative instruments and our earnings of approximately \$0.2 million.

#### **Item 8. Financial Statements and Supplementary Data.**

Our financial statements and supplementary data required to be filed pursuant to this Item 8 appear in a separate section of this report beginning on page F-1.

#### **Item 9. Changes In and Disagreements with Accountants on Accounting and Financial Disclosure.**

None.

#### **Item 9A. Controls and Procedures.**

##### **Disclosure Controls and Procedures**

Our management has evaluated, with the participation of our Chief Executive Officer and our Chief Financial Officer, the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as of December 31, 2014. Based upon this evaluation, our management has concluded that our disclosure controls and procedures were effective as of December 31, 2014.

##### **Management's Annual Report on Internal Control Over Financial Reporting**

The management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting for the Company. Internal control over financial reporting is defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Securities Exchange Act of 1934.

The Company's management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2014. In making this assessment, the Company's management used the criteria set forth by the Committee of Sponsored Organization of the Treadway Commission, or COSO, in "Internal Control-Integrated Framework (2013 Framework)." Based on this assessment, management concluded that as of December 31, 2014, the Company's internal control over financial reporting is effective at the reasonable assurance level.

The Company's independent registered public accounting firm has issued a report on the effectiveness of internal control over financial reporting. This report dated March 11, 2015 appears on page F-2 of this Form 10-K.

##### **Changes in Internal Control Over Financial Reporting**

There was no change in the Company's internal control over financial reporting during the most recently completed quarter that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

## **Item 9B. Other Information.**

On March 9, 2015, our Board of Directors approved a plan to preserve and maximize, for the benefit of our stockholders, the value of any proceeds from the SIGA litigation and our existing biodefense assets. The plan eliminates approximately two-thirds of our workforce or twenty three employees and is aimed at the preservation of cash and cash equivalents sufficient to finance our continued operations through a period of time expected to extend beyond the adjudication of SIGA's appeal of the decision of the Delaware Chancery Court awarding us \$194.6 million plus post-judgment interest. We refer to the plan in this annual report on Form 10-K as the "Realignment Plan." Under the Realignment Plan, we intend to maintain sufficient resources and personnel so that we can seek partners, co-developers or acquirers for our biodefense programs and continue to execute under our government contract with NIAID.

As part of the Realignment Plan, our Board has determined to terminate Eric Richman as President and Chief Executive Officer, effective 11:59 pm on March 11, 2015, and Linda Chang as Chief Financial Officer, Treasurer and Secretary, effective April 30, 2015. Our Board has also determined to terminate our executive officers Francesca Cook and Wayne Morges, effective March 9, 2015. Mr. Richman will remain a member of our Board of Directors after March 11, 2015, and, as such, will continue to play a key role in managing the ongoing litigation, other legal matters and any strategic transactions. John Gill, 63, a member of our Board of Directors, will serve as President and Chief Executive Officer beginning March 12, 2015, and current Vice President and Controller Philip MacNeill, 61, will serve as Chief Financial Officer, Treasurer and Secretary effective May 1, 2015. The Board also appointed current Vice President, Corporate Development Jeffrey M. Jones, Ph.D., 44, to serve as the Company's Chief Operating Officer effective March 12, 2015. Mr. Gill is expected to devote necessary time to carry out his duties as President and Chief Executive Officer, and although he does not have other employment, he is not expected to devote his full time to the business of the Company, which is reflected in his compensation (described below).

Messrs. Joel McCleary and Brian Markison are resigning from the Board effective 11:59 pm on March 11, 2015, and the Board is reducing the number of directors from eight to six.

The terminations of the departing executive officers are without "cause" as defined under their respective employment agreements and the departing officers will therefore receive cash payments in accordance with the terms of such agreements for the severance periods stated therein. The Company estimates total severance payments to executives and non-executives in connection with the Realignment Plan to amount to approximately \$2 million, with substantially all such severance expenses expected to be paid in 2015. The Board also approved forms of severance agreements that the Company expects to enter into with the executive officers. These agreements extend exercise periods of options and health benefits. In light of his continuing service as director, Mr. Richman's options will continue vesting for as long as he serves on our Board of Directors, with his then-vested options terminating 90 days after Mr. Richman leaves our Board. Ms. Chang's, Mr. Morges' and Ms. Cook's options will remain exercisable for the duration of their respective severance periods. Changes to the exercise period of these options were made in accordance with the terms of the 2007 Long-Term Incentive Compensation Plan. In addition, to the extent that the executive officers elect COBRA coverage, the premiums payable by the officers during their respective severance periods will equal those payable by active employees of the Company for the same level of group health coverage, and will be deducted from the officers' severance pay. The severance agreements contain releases by the executive officers and the Company. The agreements with Ms. Chang, Mr. Morges and Ms. Cook furthermore obligate them to cooperate with the Company in connection with the SIGA litigation.

Mr. Gill will receive an annual salary of \$200,000 as President and Chief Executive Officer, with the possibility of bonuses and option grants to be determined at a future date. Mr. MacNeill's and Dr. Jones' prior salaries were increased by 5% to \$226,045 and \$222,452, respectively. Each of Mr. MacNeill and Dr. Jones will furthermore receive a 10% bonus payable on December 31, 2015 and 25,000 shares of restricted stock vesting in two years or earlier under certain circumstances. The shares of restricted stock are granted under the Company's 2007 Long-Term Incentive Compensation Plan.

The additional information required to be included pursuant to Items 401(b), (d) and (e) with respect to Mr. Gill is incorporated herein by reference to the section "Proposal 1 – Election of Directors" in the Company's definitive proxy statement on Schedule 14A filed with the SEC on May 8, 2014. The additional information required to be included pursuant to Items 401(b), (d) and (e) with respect to Mr. MacNeill is incorporated herein by reference to Item 5.02 of the Company's current report on Form 8-K filed with the SEC on September 7, 2011.

Jeffrey M. Jones, Ph.D., has been employed at PharmAthene since 2005, most recently holding the position of Vice President, Corporate Development, which he has held since February 2014. Between April 2005 and February 2014 Dr. Jones served in positions of increasing responsibility within Business and Corporate Development. Prior to joining PharmAthene, Dr. Jones was a Principal at Emerging Technology Partners, LLC, a life sciences-focused venture capital fund. Dr. Jones holds a Ph.D. in Cell and Molecular Biology from Baylor College of Medicine, an MBA from Cornell's Johnson School of Management, and a B.A. in Biology from the University of Virginia.

## **Part III**

### **Item 10. Directors, Executive Officers and Corporate Governance.**

The information required by this Item 10 is incorporated by reference to our definitive proxy statement or an amendment to our annual report on Form 10-K to be filed within 120 days of our fiscal year end.

### **Item 11. Executive Compensation.**

The information required by this Item 11 is incorporated by reference to our definitive proxy statement or an amendment to our annual report on Form 10-K to be filed within 120 days of our fiscal year end.

### **Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.**

The information required by this Item 12 is incorporated by reference to our definitive proxy statement or an amendment to our annual report on Form 10-K to be filed within 120 days of our fiscal year end.

### **Item 13. Certain Relationships and Related Transactions, and Director Independence.**

The information required by this Item 13 is incorporated by reference to our definitive proxy statement or an amendment to our annual report on Form 10-K to be filed within 120 days of our fiscal year end.

**Item 14. Principal Accountant Fees and Services.**

The information required by this Item 14 is incorporated by reference to our definitive proxy statement or an amendment to our annual report on Form 10-K to be filed within 120 days of our fiscal year end.

## Part IV

### Item 15. Exhibits and Financial Statement Schedules.

#### Financial Statements

Reference is made to the Index to the Consolidated Financial Statements beginning on page F-1 of this report.

#### Financial Statement Schedules

Required information is included in the footnotes to the financial statements.

#### Exhibit Index

Exhibit No.	Description
1.1	Controlled Equity Offering Sales Agreement, dated March 25, 2013, between PharmAthene, Inc. and Cantor Fitzgerald & Co. (32)
1.2	Amendment No. 1 to Controlled Equity Offering Sales Agreement, dated May 23, 2014, between PharmAthene, Inc. and Cantor Fitzgerald & Co. (36)
2.2	Sale and Purchase Agreement, dated March 20, 2008, by and among the Registrant and Avecia Investments Limited, Avecia Biologics Limited and Avecia Biologics, Inc. (5)
2.3	Amendment Agreement, dated April 2, 2008, by and among, PharmAthene, Inc., PharmAthene UK Limited and PharmAthene US Corporation and Avecia Investments Limited, Avecia Biologics Limited and Avecia Biologics, Inc. (6)
3.1	Amended and Restated Certificate of Incorporation of the Company, as amended. (17)
3.2	By-laws, as amended. (34)
4.1	Specimen Unit Certificate. (1)
4.2	Specimen Common Stock Certificate. (4)
4.6	Form of Warrant in connection with Securities Purchase Agreement dated as of April 7, 2010. (21)
4.7	Form of Warrant in connection with Securities Purchase Agreement dated as of July 20, 2010. (22)
4.8	Form of Warrant in connection with Subscription Agreement dated as of June 10, 2011. (30)
4.9	Form of Warrant in connection with Loan and Security Agreement, dated March 30, 2012. (31)
10.4	Form of Registration Rights Agreement among the Registrant and the initial stockholders of Healthcare Acquisition Corp. (1)
10.9	Form of Registration Rights Agreement by and among the Registrant and the former stockholders and note holders of PharmAthene, Inc. (2)
10.12	Amended and Restated 2007 Long-Term Incentive Compensation Plan. (8)
10.28	Office Lease, dated September 14, 2006, by and between the Company and Park Place Trust, as amended by First Amendment to Office Lease, dated January 22, 2007. (4)+
10.28.2	Second Amendment to Office Lease, by and between the Company and Park Place Trust, dated September 16, 2008. (39)
10.30	Form of PharmAthene, Inc. Executive Employment Agreement. (9)++
10.30.1	Employment Agreement, dated December 23, 2010, by and between Eric Richman and the Company++ (26)
10.30.6	Form of Executive Restricted Stock Award Agreement.++ (29)
10.30.7	Form of Executive Stock Option Agreement.++ (29)
10.30.8	Form of Director Stock Option Agreement.++ (29)
10.30.9	Employment Agreement, dated June 30, 2008, by and between Jordan P. Karp and the Company. (16)++
10.30.10	Employment Agreement, dated February 7, 2012, by and between Linda Chang and the Company. (16)++
10.30.11	Employment Agreement, dated April 18, 2008, by and between Francesca Cook and the Company. (33)++
10.30.12	Employment Agreement, dated April 18, 2008, by and between Wayne Morges and the Company. (38)++
10.31	Form of PharmAthene, Inc. Confidentiality and Non-Solicitation Agreement. (9)



10.44	Contract with the National Institutes of Health for the Production and Testing of Anthrax Recombinant Protective Antigen (rPA) Vaccine (#N01-AI-30052) (“NIH Prime Contract-Anthrax”), dated September 29, 2003. (19)+
10.45	Amendments 1 through 13 to the NIH Prime Contract-Anthrax. (19)+
10.45.2	Modification (Amendment) 18 to the Contract with the National Institutes of Health for the Production and Testing of Anthrax Recombinant Protective Antigen (rPA) Vaccine (HHSO100200900103C). (27)+
10.48	Form of Indemnification Agreement (12)
10.51	Form of Note and Warrant Purchase Agreement, dated as of July 24, 2009, by and among PharmAthene, Inc. and the investors signatories thereto, as amended by Amendment No. 1 to Note and Warrant Purchase Agreement, dated as of July 26, 2009 and Amendment No. 2 to Note and Warrant Purchase Agreement, dated as of July 28, 2009. (14)
10.52	Form of Registration Rights Agreement, dated as of July 28, 2009 by and among PharmAthene, Inc. and the investors signatories thereto. (14)
10.55	Form of Securities Purchase Agreement, dated as of April 7, 2010, between PharmAthene, Inc. and the Purchasers party thereto.(23)
10.56	Form of Securities Purchase Agreement, dated as of July 20, 2010, between PharmAthene, Inc. and the Purchasers party thereto.(24)
10.57	Form of Subscription Agreement, dated as of June 10, 2011, between PharmAthene, Inc. and the Investors party thereto. (30)
10.58	Loan and Security Agreement, dated March 30, 2012. (31)
10.61	Contract with the National Institute of Allergy and Infectious Diseases of the National Institutes of Health for the Development of Vaccine Formulations Effective Against NIAID Priority Pathogens, dated September 9, 2014 (Contract No. HHSN272201400040C). + (37)
21	Subsidiaries.*
23	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm.*
31.1	Certification of Principal Executive Officer Pursuant to SEC Rule 13a-14(a)/15d-14(a).*
31.2	Certification of Principal Financial Officer Pursuant to SEC Rule 13a-14(a)/15d-14(a).*
32.1	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350.*
32.2	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350.*
(101)	The following consolidated financial statements from the PharmAthene, Inc. annual report on Form 10-K for the year ended December 31, 2014, formatted in Extensive Business Reporting Language (“XBRL”): (i) Consolidated Balance Sheets as of December 31, 2014 and December 31, 2013, (ii) Consolidated Statements of Operations for the years ended December 31, 2014, 2013 and 2012, (iii) Consolidated Statements of Comprehensive Loss, (iv) Consolidated Statements of Stockholders’ Equity for the years ended December 31, 2014, 2013 and 2012, (v) Consolidated Statements of Cash Flows for the years ended December 31, 2014, 2013 and 2012, and (v) Notes to consolidated financial statements.*
101.INS	Instance Document*

- 101.SCH XBRL Taxonomy Extension Schema Document\*
- 101.CAL XBRL Taxonomy Extension Calculation Linkbase Document\*
- 101.DEF XBRL Taxonomy Extension Definition Linkbase Document\*
- 101.LAB XBRL Taxonomy Extension Label Linkbase Document\*
- 101.PRE XBRL Taxonomy Extension Presentation Linkbase Document\*
- (1) Incorporated by reference to the Registration Statement on Form S-1 of the Registrant filed on May 6, 2005.
- (2) Incorporated by reference to the current report on Form 8-K filed by the Registrant on January 22, 2007.
- (3) Intentionally omitted.
- (4) Incorporated by reference to the current report on Form 8-K/A filed by the Registrant on September 24, 2007.
- (5) Incorporated by reference to the current report on Form 8-K filed by the Registrant on March 26, 2008.
- (6) Incorporated by reference to the current report on Form 8-K filed by the Registrant on April 8, 2008.
- (7) Intentionally omitted.
- (8) Incorporated by reference to Appendix B to the Proxy Statement on Schedule 14A filed by the Registrant on May 15, 2008.
- (9) Incorporated by reference to the corresponding exhibit to the quarterly report on Form 10-Q for the quarter ended June 30, 2008.
- (10) Intentionally omitted.
- (11) Intentionally omitted.
- (12) Incorporated by reference to Exhibit 10.45 to the current report on Form 8-K filed by the Registrant on January 27, 2009.
- (13) Intentionally omitted.
- (14) Incorporated by reference to Amendment No. 1 to the Company's current report on Form 8-K filed on August 3, 2009.
- (15) Intentionally omitted.
- (16) Incorporated by reference to the corresponding exhibit to the Registrant's annual report on Form 10-K for the year ended December 31, 2011.
- (17) Incorporated by reference to the Registrant's current report on Form 8-K filed on November 4, 2009.
- (18) Intentionally omitted.
- (19) Incorporated by reference to the corresponding exhibit to the Registrant's annual report on Form 10-K for the year ended December 31, 2008.
- (20) Incorporated by reference to Exhibit 10.44 to the quarterly report on Form 10-Q for the quarter ended September 30, 2008.



- (21) Incorporated by reference to Exhibit 10.2 to the Registrant's current report on Form 8-K filed on April 8, 2010.
- (22) Incorporated by reference to Exhibit 10.2 to the Registrant's current report on Form 8-K filed on July 20, 2010.
- (23) Incorporated by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed on April 8, 2010.
- (24) Incorporated by reference to Exhibit 10.1 to the Registrant's current report on Form 8-K filed on July 20, 2010.
- (25) Incorporated by reference to Exhibit 10.30.3 to the Registrant's current report on Form 8-K filed on May 24, 2010.
- (26) Incorporated by reference to Exhibit 10.1 to the current report on Form 8-K filed by the Registrant on December 30, 2010.
- (27) Incorporated by reference to the Registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2010.
- (28) Incorporated by reference to the Registrant's annual report on Form 10-K for the year ended December 31, 2010.
- (29) Incorporated by reference to the Registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2011.
- (30) Incorporated by reference to the current report on Form 8-K filed by the Registrant on June 10, 2011.
- (31) Incorporated by reference to the current report on Form 8-K filed by the Registrant on April 3, 2012.
- (32) Incorporated by reference to Exhibit 10.1 to the current report on Form 8-K filed by the Registrant on March 25, 2013.
- (33) Incorporated by reference to the Registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2013.
- (34) Incorporated by reference to Exhibit 3.1 to the current report on Form 8-K filed by the Registrant on January 14, 2014.
- (35) Incorporated by reference to Exhibit 10.61 to the Registrant's quarterly report on Form 10-Q for the quarter ended September 30, 2014.
- (36) Incorporated by reference to Exhibit 1.2 to the Registrant's Registration Statement on Form S-3 filed on May 23, 2014.
- (37) Incorporated by reference to the corresponding exhibit to the Registrant's quarterly report on Form 10-Q for the quarter ended September 30, 2014.
- (38) Incorporated by reference to Exhibit 10.30.2 to the Registrant's annual report on Form 10-K for the year ended December 31, 2009.
- (39) Incorporated by reference to Exhibit 10.44 to the Registrant's quarterly report on Form 10-Q for the quarter ended September 30, 2008.
- \* Filed herewith.
- + Certain confidential portions of this exhibit have been omitted and filed separately with the Securities and Exchange Commission pursuant to a request for confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934.
- ++ Management Compensation Arrangement.

**Financial Statements and Schedules of Subsidiaries and Affiliates**

None.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized, in the city of Annapolis, State of Maryland, on the 11 day of March, 2015.

### PHARMATHENE, INC.

By: /s/ Eric I. Richman  
Eric I. Richman  
*President & Chief Executive Officer*

### POWER OF ATTORNEY

BY THESE PRESENTS, each person whose signature appears below constitutes and appoints John Gill and Philip MacNeill his true and lawful attorney-in-fact and agents, with full power of substitution and resubstitution for him and in his name, place and stead, in any and all capacities to sign any and all amendments to this annual report on Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the U.S. Securities and Exchange Commission, hereby ratifying and confirming all that said attorney-in-fact or his substitute, each acting alone, may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Eric I. Richman</u> Eric I. Richman	Chief Executive Officer and Director (Principal Executive Officer)	March 11, 2015
<u>/s/ Linda L. Chang</u> Linda L. Chang	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 11, 2015
<u>/s/ Mitchel Sayare</u> Mitchel Sayare, Ph.D.	Chairman of the Board	March 11, 2015
<u>/s/ John Gill</u> John Gill	Director	March 11, 2015
<u>/s/ Brian Markison</u> Brian Markison	Director	March 11, 2015
<u>/s/ Derace Schaffer</u> Derace Schaffer, M.D.	Director	March 11, 2015
<u>/s/ Joel McCleary</u> Joel McCleary	Director	March 11, 2015
<u>/s/ Jeffrey W. Runge</u> Jeffrey W. Runge, M.D.	Director	March 11, 2015
<u>/s/ Steven St. Peter</u> Steven St. Peter, M.D.	Director	March 11, 2015

**PHARMATHENE, INC.**

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM  
INTERNAL CONTROL OVER FINANCIAL REPORTING

The Board of Directors and Stockholders of  
PharmAthene, Inc.

We have audited PharmAthene, Inc.'s internal control over financial reporting as of December 31, 2014, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). PharmAthene Inc.'s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in Item 9A, Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, PharmAthene, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2014, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of PharmAthene, Inc. as of December 31, 2014 and 2013, and the related consolidated statements of operations, comprehensive loss, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2014 and our report dated March 11, 2015 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Baltimore, Maryland  
March 11, 2015

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM  
CONSOLIDATED FINANCIAL STATEMENTS

The Board of Directors and Stockholders of  
PharmAthene, Inc.

We have audited the accompanying consolidated balance sheets of PharmAthene, Inc. as of December 31, 2014 and 2013, and the related consolidated statements of operations, comprehensive loss, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2014. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of PharmAthene, Inc. at December 31, 2014 and 2013, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2014, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), PharmAthene Inc.'s internal control over financial reporting as of December 31, 2014, based on criteria established in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated March 11, 2015 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Baltimore, Maryland  
March 11, 2015

**PHARMATHENE, INC.**  
**CONSOLIDATED BALANCE SHEETS**

	<b>December 31,</b>	
	<b>2014</b>	<b>2013</b>
<b><u>ASSETS</u></b>		
Current assets:		
Cash and cash equivalents	\$ 18,643,351	\$ 10,480,979
Billed accounts receivable	110,656	1,427,113
Unbilled accounts receivable	297,431	2,199,525
Prepaid expenses and other current assets	199,194	231,491
<b>Total current assets</b>	<b>19,250,632</b>	<b>14,339,108</b>
Property and equipment, net	325,772	386,068
Other long-term assets and deferred costs	53,384	65,660
Goodwill	2,348,453	2,348,453
<b>Total assets</b>	<b>\$ 21,978,241</b>	<b>\$ 17,139,289</b>
<b><u>LIABILITIES AND STOCKHOLDERS' EQUITY</u></b>		
Current liabilities:		
Accounts payable	\$ 391,396	\$ 1,128,172
Accrued expenses and other liabilities	1,195,412	3,182,687
Deferred revenue	-	341,723
Current portion of long-term debt	746,146	999,996
Other short term liabilities	70,326	-
Current portion of derivative instruments	178,509	51,663
Short-term debt	-	1,091,740
<b>Total current liabilities</b>	<b>2,581,789</b>	<b>6,795,981</b>
Other long-term liabilities	493,137	588,745
Long-term debt, less current portion	-	730,279
Derivative instruments, less current portion	629,170	1,688,572
<b>Total liabilities</b>	<b>3,704,096</b>	<b>9,803,577</b>
Stockholders' equity:		
Common stock, \$0.0001 par value; 100,000,000 shares authorized; 63,603,303 and 52,304,246 shares issued and outstanding at December 31, 2014 and 2013, respectively	6,360	5,230
Additional paid-in-capital	238,780,633	217,877,117
Accumulated other comprehensive loss	(229,528)	(218,710)
Accumulated deficit	(220,283,320)	(210,327,925)
<b>Total stockholders' equity</b>	<b>18,274,145</b>	<b>7,335,712</b>
<b>Total liabilities and stockholders' equity</b>	<b>\$ 21,978,241</b>	<b>\$ 17,139,289</b>

The accompanying notes are an integral part of the consolidated financial statements.

**PHARMATHENE, INC.**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**

	Year Ended December 31,		
	2014	2013	2012
Contract revenue	\$ 10,190,205	\$ 17,912,607	\$ 25,175,887
Operating expenses:			
Research and development	9,319,828	15,290,142	19,509,629
General and administrative	10,911,724	13,279,186	11,628,732
Depreciation	149,958	182,487	303,916
Total operating expenses	<u>20,381,510</u>	<u>28,751,815</u>	<u>31,442,277</u>
Loss from operations	\$ (10,191,305)	\$ (10,839,208)	\$ (6,266,390)
Other income (expense):			
Interest expense, net	(210,399)	(366,706)	(324,753)
Realization of cumulative translation adjustment	-	-	1,227,656
Change in fair value of derivative instruments	508,817	(444,622)	591,039
Other income (expense)	(762)	(6,071)	47,862
Total other income (expense)	<u>297,656</u>	<u>(817,399)</u>	<u>1,541,804</u>
Loss before income taxes	(9,893,649)	(11,656,607)	(4,724,586)
Income tax provision	(61,746)	(61,746)	(195,529)
Net loss	<u>\$ (9,955,395)</u>	<u>\$ (11,718,353)</u>	<u>\$ (4,920,115)</u>
Basic and diluted net loss per share	\$ (0.17)	\$ (0.23)	\$ (0.10)
Weighted average shares used in calculation of basic and diluted net loss per share	57,535,325	50,659,116	48,323,067

The accompanying notes are an integral part of the consolidated financial statements.

**PHARMATHENE, INC.**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS**

	<b>Year Ended December 31,</b>		
	<b>2014</b>	<b>2013</b>	<b>2012</b>
Net loss	\$ (9,955,395)	\$ (11,718,353)	\$ (4,920,115)
Other comprehensive loss:			
Realization of cumulative translation adjustment included in net loss	-	-	(1,227,656)
Foreign currency translation adjustment	(10,818)	(1,382)	(194)
Comprehensive loss	<u>\$ (9,966,213)</u>	<u>\$ (11,719,735)</u>	<u>\$ (6,147,965)</u>

The accompanying notes are an integral part of the consolidated financial statements.



**PHARMATHENE, INC.**  
**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Stockholders' Equity
	Shares	Amount				
<b>Balance as of 12/31/2011</b>	48,236,172	\$ 4,824	\$ 208,525,917	\$ 1,010,522	\$ (193,689,457)	\$ 15,851,806
Net loss	-	-	-	-	(4,920,115)	(4,920,115)
Realization of cumulative translation adjustment included in net loss	-	-	-	(1,227,656)	-	(1,227,656)
Foreign currency translation adjustments	-	-	-	(194)	-	(194)
Share-based compensation - stock options	-	-	1,803,427	-	-	1,803,427
Shares issued upon exercise of stock options	31,474	3	38,981	-	-	38,984
Employee vesting of restricted shares, net	85,005	8	57,704	-	-	57,712
Warrants to purchase common stock issued in connection with issuance of long-term debt	-	-	69,876	-	-	69,876
<b>Balance as of 12/31/2012</b>	48,352,651	4,835	210,495,905	(217,328)	(198,609,572)	11,673,840
Net loss	-	-	-	-	(11,718,353)	(11,718,353)
Foreign currency translation adjustments	-	-	-	(1,382)	-	(1,382)
Issuance of common stock, net issuance costs	3,883,173	388	5,943,707	-	-	5,944,095
Share-based compensation - stock options	-	-	1,352,117	-	-	1,352,117
Shares issued upon exercise of stock options	61,756	7	74,789	-	-	74,796
Employee vesting of restricted shares	6,666	-	10,599	-	-	10,599
<b>Balance as of 12/31/2013</b>	52,304,246	5,230	217,877,117	(218,710)	(210,327,925)	7,335,712
Net loss	-	-	-	-	(9,955,395)	(9,955,395)
Foreign currency translation adjustments	-	-	-	(10,818)	-	(10,818)
Issuance of common stock, net issuance costs	10,520,454	1,052	17,685,043	-	-	17,686,095
Share-based compensation - stock options	-	-	1,649,994	-	-	1,649,994
Shares issued upon exercise of stock options	352,718	35	455,805	-	-	455,840
Shares issued upon exercise of warrants	419,218	42	1,107,022	-	-	1,107,064
Employee vesting of restricted shares	6,667	1	5,652	-	-	5,653
<b>Balance as of 12/31/2014</b>	<u>63,603,303</u>	<u>\$ 6,360</u>	<u>\$ 238,780,633</u>	<u>\$ (229,528)</u>	<u>\$ (220,283,320)</u>	<u>\$ 18,274,145</u>

The accompanying notes are an integral part of the consolidated financial statements.

**PHARMATHENE, INC.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

	Year Ended December 31,		
	2014	2013	2012
<b>Operating activities</b>			
Net loss	\$ (9,955,395)	\$ (11,718,353)	\$ (4,920,115)
Adjustments to reconcile net loss to net cash used in operating activities:			
Realization of cumulative translation adjustment	-	-	(1,227,656)
Share-based compensation expense	1,655,647	1,362,716	1,894,099
Change in fair value of derivative instruments	(508,817)	444,622	(591,039)
Depreciation expense	149,958	182,487	303,916
Deferred income taxes	61,746	61,746	195,529
Non-cash interest expense	83,021	135,162	122,342
Gain on the disposal of property and equipment	(5,394)	(3,500)	(66,626)
Changes in operating assets and liabilities:			
Accounts receivable	1,316,457	1,005,528	1,991,801
Unbilled accounts receivable	1,902,094	1,914,917	(1,093,234)
Prepaid expenses and other current assets	(5,367)	282,057	367,149
Accounts payable	(736,776)	(569,120)	251,561
Accrued expenses and other liabilities	(2,089,493)	773,566	(418,076)
Deferred revenue	(341,723)	(1,040,032)	867,443
Net cash used in operating activities	(8,474,042)	(7,168,204)	(2,322,906)
<b>Investing activities</b>			
Purchases of property and equipment	(92,269)	(84,579)	-
Proceeds from the sale of property and equipment	8,000	3,500	67,400
Net cash provided by (used in) investing activities	(84,269)	(81,079)	67,400
<b>Financing activities</b>			
Proceeds from issuance (repayment) of debt and warrants	(999,996)	(749,997)	2,500,000
Net proceeds from (repayment of) revolving credit agreement	(1,091,740)	(238,767)	1,330,507
Deferred financing costs	-	-	(216,460)
Change in restricted cash requirements	-	-	100,000
Net proceeds from exercise of warrants	683,325	-	-
Proceeds from issuance of common stock, net of offering costs	18,141,935	6,018,891	38,984
Other	-	-	(32,960)
Net cash provided by financing activities	16,733,524	5,030,127	3,720,071
Effects of exchange rates on cash and cash equivalents	(12,841)	(1,382)	181
Increase (decrease) in cash and cash equivalents	8,162,372	(2,220,538)	1,464,746
Cash and cash equivalents, at beginning of year	10,480,979	12,701,517	11,236,771
Cash and cash equivalents, at end of year	\$ 18,643,351	\$ 10,480,979	\$ 12,701,517
<b>Supplemental disclosure of cash flow information</b>			
Cash paid for interest	\$ 128,073	\$ 234,119	\$ 220,219
<b>Noncash Financing activity</b>			
Value of warrants issued to lender in connection with loan	\$ -	\$ -	\$ 69,876

The accompanying notes are an integral part of the consolidated financial statements.

**PHARMATHENE, INC.**

**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS  
AS OF AND FOR THE YEAR ENDED DECEMBER 31, 2014**

**Note 1 — Organization and Business**

We were formed in April 2005 as Healthcare Acquisition Corp., or HAQ, a special purpose acquisition company. On August 3, 2005, we consummated our initial public offering. On August 3, 2007, we acquired all the outstanding equity of PharmAthene, Inc., a Delaware Corporation, and changed our name from Healthcare Acquisition Corp. to PharmAthene, Inc. In March 2008, PharmAthene Inc., through its wholly owned subsidiary PharmAthene UK Limited, acquired substantially all the assets and liabilities related to the biodefense vaccines business of Avecia Biologics Limited.

We are incorporated under the laws of the State of Delaware and are a biodefense company focused on developing next generation medical counter measures against biological and chemical threats. We are subject to those risks associated with any biopharmaceutical company that has substantial expenditures for research and development. In addition, we operate in an environment of rapid technological change and are largely dependent on the services and expertise of our employees, consultants and other third parties.

Historically, we have performed under government contracts and grants and raised funds from investors (including additional debt and equity issued in 2014, 2013 and 2012) to sustain our operations. The Company has spent substantial funds in the research, development, clinical and preclinical testing in excess of revenues, to support the Company's product candidates and to market and sell its products. We have incurred losses in each year since inception, and have a retained deficit of \$220.3 million. Our cash balance as of December 31, 2014 is \$18.6 million, our accounts receivable (billed and unbilled) is \$0.4 million, and our current liabilities are \$2.6 million. In addition, as of December 31, 2014, aggregate gross sales for additional common stock of approximately \$3.0 million remained available under our controlled equity offering arrangement (see Note 8 – *Stock Holders' Equity*). We believe, based on the operating cash requirements and capital expenditures expected for 2015, the Company's cash on hand at December 31, 2014 is adequate to fund operations through at least the end of 2015.

**Note 2 — Summary of Significant Accounting Policies**

***Basis of Presentation***

Our consolidated financial statements include the accounts of PharmAthene, Inc. and its wholly owned subsidiary. All significant intercompany transactions and balances have been eliminated in consolidation. Our consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States. We currently operate in one business segment.

***Use of Estimates***

The preparation of financial statements in conformity with generally accepted accounting principles in the United States ("U.S. GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Our consolidated financial statements include significant estimates for the expected economic life and value of our tangible assets and value of our indefinite lived intangible asset, the amount of our net operating losses, our share-based compensation, and financial instruments, among other things. Because of the use of estimates inherent in the financial reporting process, actual results could differ significantly from those estimates.

### ***Foreign Currency Translation***

The functional currency of our wholly owned foreign subsidiary is its local currency. Assets and liabilities of our foreign subsidiary are translated into United States dollars based on exchange rates at the end of the reporting period. Income and expense items are translated at the weighted average exchange rates prevailing during the reporting period. Translation adjustments for subsidiaries that have not been sold, substantially liquidated or otherwise disposed of are accumulated in other comprehensive loss, a component of stockholders' equity. Foreign currency translation adjustments are the sole component of accumulated other comprehensive loss at December 31, 2014 and 2013. Transaction gains or (losses) are included in the determination of net income or loss.

In July 2012, we substantially liquidated our Canadian subsidiary, which we acquired in 2005. As a result, we realized approximately \$1.2 million of income in our consolidated statement of operations, which represents the amount of previously recorded foreign currency translation adjustments related to our Canadian subsidiary which were previously included in accumulated other comprehensive income in our consolidated balance sheets.

### ***Comprehensive Loss and Accumulated Other Comprehensive Income***

Comprehensive loss includes the total of our net loss and all other changes in equity other than transactions with owners, which only includes changes in equity for cumulative translation adjustments resulting from the consolidation of foreign subsidiaries, as the financial statements of the subsidiary located outside of the United States are accounted for using the local currency as the functional currency for the year ended December 31, 2014, 2013 and 2012.

### ***Cash and Cash Equivalents***

Cash and cash equivalents are stated at market value. We consider all highly liquid investments with original maturities of three months or less to be cash equivalents.

### ***Concentration of Credit Risk***

Financial instruments that potentially subject us to concentrations of credit risk are primarily cash and cash equivalents, and billed and unbilled accounts receivable. We maintain our cash and cash equivalents in the form of money market accounts and overnight deposits with financial institutions that we believe are credit worthy. Because our billed and unbilled accounts receivable consist of amounts due from the U.S. federal government, there is minimal credit risk.

### ***Revolving Line of Credit and Term Loan***

As discussed further in Note 6 - *Debt*, we entered into a loan agreement with General Electric Capital Corporation ("GE Capital") in March 2012. As part of that agreement, we issued stock purchase warrants to GE Capital that expires in March 2022. The fair value of the warrants was charged to additional paid-in-capital, resulting in a debt discount at the date of issuance. The debt discount and financing costs incurred in connection with this agreement are being amortized over the term of the agreement using the effective interest method and are included in interest expense, net in the consolidated statements of operations.

### ***Significant Customers and Accounts Receivable***

For the year ending December 31, 2014 our primary customers were the Biomedical Advanced Research and Development Authority, or BARDA, Chemical Biological Medical Systems, or CBMS and the National Institutes of Allergy and Infectious Diseases, or NIAID. For the year ending, December 31, 2013, BARDA and CBMS were our primary customers. As of December 31, 2014 and 2013, the Company's billed and unbilled receivable balances were comprised solely of receivables from these customers and are reported at amounts expected to be collected in future periods. No allowance for doubtful accounts is necessary given the circumstances.

## **Property and Equipment**

Property and equipment consist of leasehold improvements, furniture and office equipment and computer and other equipment and are recorded at cost. Leasehold improvements are amortized over the economic life of the asset or the lease term, whichever is shorter. Property and equipment are depreciated using the straight-line method over the estimated useful lives of the respective assets as follows:

<b>Asset Category</b>	<b>Estimated Useful Life (in Years)</b>
Leasehold improvements	8-10
Furniture and office equipment	5
Computer and other equipment	3-5

## **Impairment of Long-Lived Assets**

Long-lived assets consist primarily of property and equipment. We review long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future undiscounted net cash flows expected to be generated by the asset. Recoverability measurement and estimating of undiscounted cash flows is done at the lowest possible level for which we can identify assets. If such assets are considered to be impaired, impairment is recognized as the amount by which the carrying amount of assets exceeds the fair value of the assets.

## **Exit Activities**

We substantially completed the liquidation of our Canadian subsidiary in July 2012 and recognized approximately \$1.2 million of accumulated foreign currency translation adjustments, which is included in the 2012 consolidated statement of operations and the consolidated statement of comprehensive loss. The \$1.2 million of accumulated foreign currency translation adjustments were included in accumulated comprehensive income on the consolidated balance sheet prior to the July 2012 liquidation of our Canadian subsidiary. In 2014, we filed our final tax returns with the Canadian Tax Authorities and dissolved the PharmAthene Canada subsidiary.

## **Fair Value of Financial Instruments**

The carrying amounts of our short term financial instruments, which primarily include cash and cash equivalents, accounts receivable (billed and unbilled), and accounts payable, approximate their fair values due to their short maturities. The fair value of our total indebtedness is estimated based on the current rates offered to the Company for debt of the same remaining maturities and it approximates its face value, which was \$0.8 million and \$1.8 million at December 31, 2014 and 2013, respectively. See Note 3 - *Fair Value Measurements* for further details.

## **Goodwill**

Goodwill represents the excess of purchase price over the fair value of net identifiable assets associated with acquisitions. We review the recoverability of goodwill annually at the end of our fiscal year or more often if events or changes in circumstances indicate that it is more likely than not that an impairment exists. Recoverability of goodwill is reviewed by comparing our market value (as measured by our stock price multiplied by the number of outstanding shares as of the end of the year) to the net book value of our equity. If our market value exceeds our net book value, no further analysis is required. We completed our annual impairment assessment of goodwill on December 31, 2014 and determined that there was no impairment as of that date. Changes in our business strategy or adverse changes in market conditions could impact the impairment analyses and require the recognition of an impairment charge equal to the excess of the carrying value over its estimated fair value.

## **Revenue Recognition**

We generate our revenue from different types of contractual arrangements: cost-plus-fee contracts, fixed price contracts and cost reimbursable grants.

Revenues on cost-plus-fee contracts are recognized in an amount equal to the costs incurred during the period plus an estimate of the applicable fee earned. The estimate of the applicable fee earned is determined by reference to the contract: if the contract defines the fee in terms of risk-based milestones and specifies the fees to be earned upon the completion of each milestone, then the fee is recognized when the related milestones are earned, as further described below; otherwise, we estimate the fee earned in a given period by using a proportional performance method based on costs incurred during the period as compared to total estimated project costs and application of the resulting fraction to the total project fee specified in the contract.

Under the milestone method of revenue recognition, milestone payments (including milestone payments for fees) contained in research and development arrangements are recognized as revenue when: (i) the milestones are achieved; (ii) no further performance obligations with respect to the milestone exist; (iii) collection is reasonably assured; and (iv) substantive effort was necessary to achieve the milestone.

Milestones are considered substantive if all of the following conditions are met:

- it is commensurate with either our performance to meet the milestone or the enhancement of the value of the delivered item or items as a result of a specific outcome resulting from our performance to achieve the milestone,
- it relates solely to past performance, and
- the value of the milestone is reasonable relative to all the deliverables and payment terms (including other potential milestone consideration) within the arrangement.

If a milestone is deemed not to be substantive, the Company recognizes the portion of the milestone payment as revenue that correlates to work already performed using the proportional performance method; the remaining portion of the milestone payment is deferred and recognized as revenue as the Company completes its performance obligations.

Revenue on fixed price contracts (without substantive milestones as described above) is recognized on the percentage-of-completion method. The percentage-of-completion method recognizes income as the contract progresses (generally related to the costs incurred in providing the services required under the contract). The use of the percentage-of-completion method depends on the ability to make reasonable dependable estimates and the fact that circumstances may necessitate frequent revision of estimates does not indicate that the estimates are unreliable for the purpose for which they are used.

Revenue on fixed price contracts with substantive milestones as described above is recognized as each milestone is achieved. Revenue may be recognized upon completion of the contract, when substantive delivery is achieved, transfer of title takes place and payment is reasonably assured.

As a result of our revenue recognition policies and the billing provisions contained in our contracts, the timing of customer billings may differ from the timing of recognizing revenue. Amounts invoiced to customers in excess of revenue recognized are reflected on the balance sheet as deferred revenue. Amounts recognized as revenue in excess of amounts billed to customers are reflected on the balance sheet as unbilled accounts receivable.

We analyze each cost reimbursable grant to determine whether we should report such reimbursements as revenue or as an offset to our expenses incurred. We had no reimbursements for the year ended 2014; however, for the years ended December 31, 2013 and 2012, we recorded approximately \$0.02 million and \$1.1 million, respectively, of costs reimbursed by the government as a reduction of research and development expenses.

### ***Collaborative Arrangements***

Even though most of our products are being developed in conjunction with support by the U.S. Government, we are an active participant in that development, with exposure to significant risks and rewards of commercialization relating to the development of these pipeline products. In collaborations where we are deemed to be the principal participant of the collaboration, we recognize costs and revenues generated from third parties using the gross basis of accounting; otherwise, we use the net basis of accounting. Cost paid to us by other collaborative arrangement members are recognized pursuant to their terms.

### ***Research and Development***

Research and development costs are expensed as incurred; up-front payments are deferred and expensed as performance occurs. Research and development costs include salaries, facilities expense, overhead expenses, material and supplies, preclinical expense, clinical trials and related clinical manufacturing expenses, share-based compensation expense, contract services and other outside services.

### ***Share-Based Compensation***

We expense the estimated fair value of share-based awards granted to employees and non-employee directors under our stock compensation plans. The fair value of stock options is determined at the grant date using the Black-Scholes option pricing model, which considers, among other factors, the expected life of the award and the expected volatility of our stock price. The value of the award that is ultimately expected to vest is recognized as expense on a straight line basis over the employee's requisite service period.

The fair value of share-based awards granted to consultants is determined at the grant date using the Black-Scholes option pricing model and remeasured at each quarterly reporting date over their requisite service period. The value of the award that is ultimately expected to vest is recognized as expense on a straight line basis over their requisite service period.

The fair value of restricted stock grants is determined based on the closing price of our common stock on the award date and is recognized as expense ratably over the requisite service period.

Share-based compensation expense in 2014, 2013 and 2012 is calculated based on awards ultimately expected to vest and is reduced for estimated forfeitures.

Share-based compensation expense for 2014, 2013 and 2012 is as follows:

	<b>Year Ended December 31,</b>		
	<b>2014</b>	<b>2013</b>	<b>2012</b>
Research and development	\$ 452,870	\$ 333,735	\$ 518,375
General and administrative	1,202,777	1,028,981	1,375,724
Total share-based compensation expense	<u>\$ 1,655,647</u>	<u>\$ 1,362,716</u>	<u>\$ 1,894,099</u>

During the years ended December 31, 2014, 2013 and 2012, we received proceeds of \$0.5 million, \$0.1 million and less than \$0.1 million from stock options exercised, respectively. No income tax benefit was recognized in the consolidated statements of operations for stock-based compensation for the years presented due to the Company's net loss position.

### ***Income Taxes***

We account for income taxes using the asset and liability approach, which requires the recognition of future tax benefits or liabilities on the temporary differences between the financial reporting and tax bases of our assets and liabilities. A valuation allowance is established when necessary to reduce deferred tax assets to the amounts expected to be realized. We also recognize a tax benefit from uncertain tax positions only if it is "more likely than not" that the position is sustainable based on its technical merits. As of December 31, 2014 and 2013, we had recognized a full valuation allowance since the likelihood of realization of our tax deferred assets does not meet the more likely than not threshold.

We incurred income tax expense of approximately \$0.1 million for each of the years ended December 31, 2014 and 2013, and \$0.2 million for the year ended December 31, 2012, relating exclusively to the generation of a deferred tax liability associated with the tax amortization of goodwill.

We file a U.S. federal income tax return as well as returns for various state and foreign jurisdictions. Our income taxes have not been examined by any tax jurisdiction since our inception. Uncertain tax positions taken on our tax returns are accounted for as liabilities for unrecognized tax benefits. We recognize interest and penalties, if any, related to unrecognized tax benefits in other income (expense) in the consolidated statements of operations.

### **Basic and Diluted Net Loss Per Share**

*Income (loss) per share:* Basic loss per share is computed by dividing consolidated net loss by the weighted average number of common shares outstanding during the period, excluding unvested restricted stock.

For periods of net income when the effects are not anti-dilutive, diluted earnings per share is computed by dividing our net loss by the weighted average number of shares outstanding and the impact of all potential dilutive common shares, consisting primarily of stock options, unvested restricted stock and stock purchase warrants. The dilutive impact of our dilutive potential common shares resulting from stock options and stock purchase warrants is determined by applying the treasury stock method.

For the periods of net loss, diluted loss per share is calculated similarly to basic loss per share because the impact of all dilutive potential common shares is anti-dilutive due to the net losses. Approximately 11.9 million, 11.6 million and 11.9 million potential dilutive shares have been excluded in the calculation of diluted net loss per share in 2014, 2013 and 2012, respectively, because their inclusion would be anti-dilutive.

### **Recent Accounting Pronouncements**

In May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update No. 2014-09, Revenue From Contracts With Customers, or ASU 2014-09. Pursuant to this update an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. For a public entity, the amendments in this Update are effective for annual reporting periods beginning after December 15, 2016, including interim periods within that reporting period. Early application is not permitted. We have not yet determined the impact of adoption on our consolidated financial statements.

In August 2014, FASB issued Accounting Standards Update No. 2014-15, Presentation of Financial Statements – Going Concern, or ASU 2014-15. In connection with preparing financial statements for each annual and interim reporting period, an entity’s management should evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about its ability to continue as a going concern within one year after the date that the financial statements are issued (or within one year after the date that the financial statements are available to be issued when applicable). ASU 2014-15 further describes the disclosures that must be made in the financial statements if conditions or events raise substantial doubt about an entity’s ability to continue as a going concern. The amendments in this Update are effective for the periods ending after December 15, 2016. Early application is permitted. We have not yet adopted ASU 2014-15.

### **Note 3 — Fair Value Measurements**

We define fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. We report assets and liabilities that are measured at fair value using a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. This hierarchy maximizes the use of observable inputs and minimizes the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows:

- Level 1 — Quoted prices in active markets for identical assets or liabilities.
- Level 2 — Observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets; quoted prices for identical or similar assets and liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data.



Level 3 — Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. This includes certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

An asset's or liability's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. At each reporting period, we perform a detailed analysis of our assets and liabilities that are measured at fair value. All assets and liabilities for which the fair value measurement is based on significant unobservable inputs or instruments which trade infrequently and therefore have little or no price transparency are classified as Level 3.

We have segregated our financial assets and liabilities that are measured at fair value into the most appropriate level within the fair value hierarchy based on the inputs used to determine the fair value at the measurement date in the table below. We have no non-financial assets and liabilities that are measured at fair value at December 31, 2014 and 2013.

The following table represents the fair value hierarchy for our financial assets and liabilities measured at fair value on a recurring basis:

	As of December 31, 2014			Balance
	Level 1	Level 2	Level 3	
<b>Assets</b>				
Investment in money market funds <sup>(1)</sup>	\$ 6,429,104	\$ -	\$ -	\$ 6,429,104
Total investment in money market funds	<u>\$ 6,429,104</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 6,429,104</u>
<b>Liabilities</b>				
Current portion of derivative instruments related to stock purchase warrants	\$ -	\$ -	\$ 178,509	\$ 178,509
Non-current portion of derivative instruments related to stock purchase warrants	-	-	629,170	629,170
Total derivative instruments related to stock purchase warrants	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 807,679</u>	<u>\$ 807,679</u>
	As of December 31, 2013			
	Level 1	Level 2	Level 3	Balance
<b>Assets</b>				
Investment in money market funds <sup>(1)</sup>	\$ 7,928,807	\$ -	\$ -	\$ 7,928,807
Total investment in money market funds	<u>\$ 7,928,807</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 7,928,807</u>
<b>Liabilities</b>				
Current portion of derivative instruments related to stock purchase warrants	\$ -	\$ -	\$ 51,663	\$ 51,663
Non-current portion of derivative instruments related to stock purchase warrants	-	-	1,688,572	1,688,572
Total derivative instruments related to stock purchase warrants	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 1,740,235</u>	<u>\$ 1,740,235</u>

(1) Included in cash and cash equivalents on the consolidated balance sheets.

Derivative instruments related to stock purchase warrants with 419,218 underlying common shares were exercised during the third quarter of 2014. The fair value of the exercised stock purchase warrants was \$423,739 at the date of exercise. During the same quarter, derivative instruments related to stock purchase warrants with 705,354 underlying common shares expired. During the years ended December 31, 2014 and 2013, we did not have any transfers between Level 1, Level 2, or Level 3 assets or liabilities.

The following table sets forth a summary of changes in the fair value of the Company's Level 3 liabilities for the twelve months ended December 31, 2014, 2013 and 2012:

Description	Balance as of December 31, 2013	Unrealized (Gains) 2014	Exercised Stock Purchase Warrants 2014	Balance as of December 31, 2014
Derivative liabilities related to stock purchase warrants	\$ 1,740,235	\$ (508,817)	\$ (423,739)	\$ 807,679

Description	Balance as of December 31, 2012	Unrealized Losses 2013	Exercised Stock Purchase Warrants 2013	Balance as of December 31, 2013
Derivative liabilities related to stock purchase warrants	\$ 1,295,613	\$ 444,622	\$ -	\$ 1,740,235

Description	Balance as of December 31, 2011	Unrealized (Gains) 2012	Exercised Stock Purchase Warrants 2012	Balance as of December 31, 2012
Derivative liabilities related to stock purchase warrants	\$ 1,886,652	\$ (591,039)	\$ -	\$ 1,295,613

At December 31, 2014 derivative liabilities are comprised of 1,775,419 warrants to purchase common stock. At December 31, 2013 derivative liabilities are comprised of 2,899,991 warrants to purchase common stock. The warrants are considered to be derivative liabilities due to the presence of net settlement features and/or non-standard anti-dilution provisions, and as a result, are recorded at fair value at each balance sheet date. The fair value of our warrants is determined based on the Black-Scholes option pricing model. Use of the Black-Scholes option-pricing model requires the use of unobservable inputs such as the expected term, anticipated volatility and expected dividends. Changes in any of the assumptions related to the unobservable inputs identified above may change the stock purchase warrants' fair value; increases in expected term, anticipated volatility and expected dividends generally result in increases in fair value, while decreases in the unobservable inputs generally result in decreases in fair value. Gains and losses on the fair value adjustments for these derivative instruments are classified in other income (expense) as the change in fair value of derivative instruments in our consolidated statements of operations.

#### Quantitative Information about Level 3 Fair Value Measurements

Fair Value at December 31, 2014	Valuation Technique	Unobservable Inputs
\$ 807,679	Black-Scholes option pricing model	Expected term Expected dividends Anticipated volatility

There were no assets or liabilities measured at fair value on a non-recurring basis during the years ended December 31, 2014, 2013, or 2012.

**Note 4 — Property and Equipment**

Property and equipment consisted of the following:

	December 31,	
	2014	2013
Leasehold improvements	\$ 758,126	\$ 758,126
Furniture and office equipment	234,018	234,018
Computer and other equipment	1,522,331	1,447,441
	<u>2,514,475</u>	<u>2,439,585</u>
Less accumulated depreciation	(2,188,703)	(2,053,517)
Property and equipment, net	<u>\$ 325,772</u>	<u>\$ 386,068</u>

Included in Computer and other equipment is approximately \$0.1 million of unamortized computer software costs. Depreciation expense for the years ended December 31, 2014, 2013 and 2012 was \$0.1 million, \$0.2 million and \$0.3 million, respectively.

**Note 5 — Accrued Expenses and Other Liabilities**

Accrued expenses and other liabilities consisted of the following:

	December 31,	
	2014	2013
Accrued research and development expenses	\$ 540,722	\$ 1,080,197
Accrued professional fees	509,953	1,056,039
Accrued employee and payroll related expenses	37,313	966,207
Other	107,424	80,244
Accrued expenses and other liabilities	<u>\$ 1,195,412</u>	<u>\$ 3,182,687</u>

**Note 6 — Debt****Term Loan and Revolving Line of Credit**

On March 30, 2012, we entered into a Loan Agreement with GE Capital. The Loan Agreement provides for a senior secured debt facility including a \$2.5 million term loan and a revolving line of credit of up to \$5.0 million based on our outstanding qualified accounts receivable. On March 30, 2012, the term loan was funded for the full \$2.5 million.

Under the terms of the revolving line of credit, the Company may draw down from the revolving line of credit up to 85% of qualified billed accounts receivable and 80% of qualified unbilled accounts receivable. As of December 31, 2014, the total amount available to draw was approximately \$0.3 million, of which none was drawn and outstanding.

The fixed interest rate on the term loan is 10.14% per annum. The revolving line of credit has an adjustable interest rate based upon the 3-month London Interbank Offered Rate (LIBOR), with a floor of 1.5%, plus 5%. As of December 31, 2014 and 2013, the interest rate was 6.5%. Both the term loan and the revolving line of credit mature in September 2015. Payments on the term loan were originally interest-only for the first 10 months (which was then extended to 12 months pursuant to the terms of the agreement); subsequently, the term loan became fully amortizable over its remaining term. As of December 31, 2014 the total remaining principal payment on the term loan was approximately \$0.8 million.

If we prepay the term loan and terminate the revolving line of credit prior to the scheduled maturity date, we are obligated to pay a prepayment premium equal to 3% of the then outstanding principal amount of the term loan if prepaid during the first two years of the loan and 2% if prepaid during the third year or thereafter. In addition, we are obligated to pay a final payment fee of 3% of the original principal amount of the term loan. The final payment fee is being accrued and expensed over the term of the agreement, using the effective interest method and is included in other long-term liabilities on the consolidated balance sheet.

Our obligations under the Loan Agreement are collateralized by a security interest in substantially all of our assets. While the security interest does not, except in limited circumstances, cover our intellectual property, it does cover any proceeds received by us from the use or sale of our intellectual property.

The Loan Agreement contains customary representations, warranties and covenants, including limitations on acquisitions, dispositions, incurrence of indebtedness and the granting of security interests. The Loan specifically restricts the declaration or payment of any dividends. The representations, warranties and covenants contained in the Loan Agreement were made only for purposes of such agreement and as of a specific date or specific dates, were solely for the benefit of the parties to such agreement, and may be subject to limitations agreed upon by the contracting parties, including being qualified by confidential disclosures exchanged between the parties in connection with the execution of the Loan Agreement.

The Loan Agreement contains certain financial and non-financial covenants. Upon the occurrence and during the continuance of any event of default, GE Capital may, and at the written request of the requisite lenders will, terminate the commitments under the facilities and declare any or all of the obligations to be immediately due and payable, without demand or notice to us; however, any event of default relating to timely payment of debts, insolvency, liquidation, bankruptcy or similar events will result in automatic acceleration. Among the remedies available to GE Capital in case of an event of default are the taking possession and disposition of any collateral under the Loan Agreement.

In connection with the Loan Agreement, we issued GE Capital warrants to purchase 46,584 shares of the Company's common stock at an exercise price of \$1.61 per share. The warrants were exercisable immediately and subject to customary and standard anti-dilution adjustments. The warrants are classified in equity and, as a result, the fair value of the warrants was charged to additional paid-in capital resulting in a debt discount at the date of issuance. The term loan is recorded on the 2014 and 2013 consolidated balance sheets, net of the debt discount. The debt discount is being amortized over the term of the loan agreement using the effective interest method. Financing costs incurred in connection with this agreement are also being amortized over the term of the agreement using the effective interest method.

## Note 7 — Commitments and Contingencies

### Leases

We lease our office in Maryland under a 10 year operating lease, which commenced on May 1, 2007. Our lease of offices in North Carolina expired in September 2013. Remaining annual minimum payments are as follows:

Year	Lease Payments
2015	\$ 823,582
2016	848,273
2017	356,911
	\$ 2,028,766

For each of the years ended December 31, 2014, 2013, and 2012, total rent expense under operating lease agreements approximated \$0.8 million and is allocated to research and development and general and administrative expenses on the consolidated statements of operations.

### License Agreements

In connection with an acquisition in 2008, we acquired license agreements with The Defence Science and Technology Laboratory of the United Kingdom Ministry of Defence, or DSTL, for the rights to certain technologies. These agreements allow for the licensing of certain patents and technology necessary to perform development of the rPA vaccine program as required under the Company's government contracts. Upon commercialization, the license agreements require that we make royalty payments equal to a specified percentage of future sales of products for both government procurement and commercial markets. No royalty payments on these licenses have been incurred.

In 2012 we entered into a commercial licensing agreement allowing for the licensing of certain patent and other intellectual property rights from a research company related to BChE. The agreement includes certain annual maintenance and other development milestone payments. Upon commercialization, the license agreement requires royalty payments equal to a specified percentage of future sales of products for both government procurement and commercial market sales subject to the license through the expiration of the licensed patents. Maintenance fees of \$0.1 million and \$0.04 million were incurred during the years ended December 31, 2014 and 2013, respectively. No maintenance or milestone payments were incurred in 2012. No royalty payment on this license has been incurred.

#### *SIGA Litigation*

In December 2006, we filed a complaint against SIGA in the Delaware Court of Chancery. The complaint alleged, among other things, that we have the exclusive right to license, development and marketing rights for SIGA's drug candidate, Arestvyr<sup>TM</sup> (Tecovirimat), pursuant to a merger agreement between the parties that was terminated in 2006. The complaint also alleged that SIGA failed to negotiate in good faith the terms of such a license pursuant to the terminated merger agreement with SIGA.

In September 2011, the Delaware Court of Chancery issued an opinion in the case finding that SIGA had breached certain contractual obligations to us upholding our claims of promissory estoppel, and awarding us damages. SIGA appealed aspects of the decision to the Delaware Supreme Court. In response, we cross-appealed other aspects of the decision. In May 2013, the Delaware Supreme Court issued its ruling on the appeal, affirming the Delaware Court of Chancery's finding that SIGA had breached certain contractual obligations to us, reversed its finding of promissory estoppel, and remanded the case back to the Delaware Court of Chancery to reconsider the remedy and award in light of the Delaware Supreme Court's opinion.

On August 8, 2014, the Delaware Court of Chancery issued a Memorandum Opinion and Order, or August 2014 Order, finding that we are entitled to receive lump sum expectation damages for the value of the Company's lost profits for Tecovirimat. In addition, the Delaware Court of Chancery found that the Company is entitled to receive pre-judgment interest and varying percentages of the Company's reasonable attorneys' and expert witness fees. On October 17, 2014, the Company and SIGA each filed opinions of our respective financial experts and Draft Orders and Judgments in accordance with the instructions of the August 2014 Order.

On September 16, 2014, SIGA announced that it filed a voluntary petition for relief under Chapter 11 of the United States Bankruptcy Code in the U.S. Bankruptcy Court for the Southern District of New York. In connection therewith, SIGA filed with the Bankruptcy Court an affidavit indicating, among other things, that it expects to continue to perform under its contract with BARDA. On December 24, 2014, SIGA announced that it expects to modify its contract with BARDA to reflect an increase in the provisional dosage of Tecovirimat and extended delivery schedule, subject to approval by the Bankruptcy Court. SIGA's petition for bankruptcy initiated a process whereby its assets are protected from creditors, including us.

On January 7, 2015, the Delaware Court of Chancery issued a letter Opinion and Order, directing the Company to submit a Revised Proposed Judgment that reflects a lump sum award of approximately \$113.0 million in contract expectation damages, plus pre-judgment interest on that amount from 2006 through the date of such order. In accordance with the instructions of the court, the Company submitted a draft Revised Proposed Judgment under seal on January 9, 2015.

On January 15, 2015, the Delaware Court of Chancery issued a Final Order and Judgment, finding that we are entitled to receive a lump sum award of \$194.6 million, or the Total Judgment, comprised of (1) expectation damages of \$113.1 million for the value of the Company's lost profits for Tecovirimat, also known as ST-246<sup>®</sup> (formerly referred to as "Arestvyr<sup>TM</sup>" and referred to by SIGA in its recent SEC filings as "Tecovirimat"), plus (2) pre-judgment interest on that amount from 2006 and varying percentages of the Company's reasonable attorneys' and expert witness fees, totaling \$81.5 million. Under the Final Order and Judgment, PharmAthene is also entitled to post-judgment simple interest. PharmAthene's entitlement to interest from and after SIGA's bankruptcy filing may be negatively impacted by the Bankruptcy Code. SIGA has filed a notice of appeal with the Delaware Supreme Court in which it challenges various findings of the Court of Chancery and seeks to set aside the Final Order and Judgment, and we have filed a notice of cross-appeal. As a result, the decision could be reversed, remanded or otherwise changed.

While we believe there may be significant revenue or operating income potential under a possible damages award, because SIGA has filed a notice of appeal with the Delaware Supreme Court and because there can be no assurance that SIGA will not be successful in any such appeal, we have not yet recorded any amount due from SIGA in relation to this case. There can be no assurances if and when the Company will receive any payments from SIGA as a result of the Judgment. SIGA has stated publicly that it does not currently have cash sufficient to satisfy the award. It is also uncertain whether SIGA will have such cash in the future. PharmAthene's ability to collect the Judgment depends upon a number of factors, including SIGA's financial and operational success, which is subject to a number of significant risks and uncertainties (certain of which are outlined in SIGA's filings with the SEC), as to which we have limited knowledge and which we have no ability to control, mitigate or fully evaluate. For example, on December 24, 2014, SIGA announced that it expects to modify its contract with BARDA to reflect an increase in the provisional dosage of Tecovirimat and extended delivery schedule, subject to approval by the Bankruptcy Court. Furthermore, because SIGA has filed for protection under the federal bankruptcy laws, the Company is automatically stayed from taking any enforcement action in the Delaware Court of Chancery. By agreement of the parties, and with the approval of the Bankruptcy Court, the automatic stay has been lifted for the sole purpose of allowing the Delaware Court of Chancery to enter a money judgment and to allow the parties to exercise their appellate rights. The Company's ability to collect a money judgment from SIGA remains subject to further proceedings in the Bankruptcy Court.

#### *Government Contracting*

Payments to the Company on cost-plus-fee contracts are provisional. The accuracy and appropriateness of costs charged to U.S. Government contracts are subject to regulation, audit and possible disallowance by the Defense Contract Audit Agency, or DCAA, and other government agencies such as BARDA. Accordingly, costs billed or billable to U.S. Government customers are subject to potential adjustment upon audit by such agencies. We have agreed to rate provisions with DCAA for 2006, 2007 and 2008. In 2014, BARDA audited indirect costs or rates charged by us on the SparVax<sup>®</sup> contract for the years 2008 through 2013. While we do not currently believe the results of this audit will have an adverse effect on the Company, we cannot provide assurances that it will not have such an effect. PharmAthene has billed and recognized revenue using the provisional rates as defined in the contract. While the rates audited by BARDA, which reflect the actual costs incurred by us, have been higher, we have no assurance on either the amount of additional funds we may receive as a result of these higher rates or the amount of time it may take to recover these funds. The amount of any such funds is determined as a result of negotiations with BARDA.

Changes in government policies, priorities or funding levels through agency or program budget reductions by the U.S. Congress or executive agencies could materially adversely affect the Company's financial condition or results of operations. Furthermore, contracts with the U.S. Government may be terminated or suspended by the U.S. Government at any time, with or without cause. Such contract suspensions or terminations could result in unreimbursable expenses or charges or otherwise adversely affect the Company's financial condition and/or results of operations.

#### *Registration Rights Agreements*

We entered into a Registration Rights Agreement with the investors who participated in the July 2009 private placement of convertible notes and related warrants. We subsequently filed two registration statements on Form S-3 with the Securities and Exchange Commission to register the resale of the shares issuable upon conversion of the convertible notes and exercise of the related warrants, which have been declared effective. We are obligated to maintain the registration statements effective until the date when such shares (and any other securities issued or issuable with respect to or in exchange for such shares) have been sold, or are eligible for resale without restrictions under Rule 144. The convertible notes were converted or extinguished in 2010. The warrants expired on January 28, 2015.

We have separate registration rights agreements with investors, under which we have obligations to keep the corresponding registration statements effective until the registrable securities (as defined in each agreement) have been sold, and under which we may have separate obligations to file registration statements in the future on either a demand or "piggy-back" basis or both.

Under the terms of the convertible notes, which were converted or extinguished in 2010, if after the 2nd consecutive business day (other than during an allowable blackout period) on which sales of all of the securities required to be included on the registration statement cannot be made pursuant to the registration statement (a "Maintenance Failure"), we will be required to pay to each selling stockholder a one-time payment of 1.0% of the aggregate principal amount of the convertible notes relating to the affected shares on the initial day of a Maintenance Failure. Our total maximum obligation under this provision at December 31, 2014, which is not probable of payment, would be approximately \$0.2 million.

Following a Maintenance Failure, we will also be required to make to each selling stockholder monthly payments of 1.0% of the aggregate principal amount of the convertible notes relating to the affected shares on every 30th day after the initial day of a Maintenance Failure, in each case prorated for shorter periods and until the failure is cured. Our total maximum obligation under this provision, which is not probable of payment, would be approximately \$0.2 million for each month until the failure, if it occurs, is cured.

## **Note 8 — Stockholders' Equity**

### ***Controlled Equity Offering***

On March 25, 2013, we entered into a controlled equity offering sales agreement with a sales agent, and filed with the SEC a prospectus supplement, dated March 25, 2013 to our prospectus dated July 27, 2011, or the 2011 Prospectus, pursuant to which we could offer and sell, from time to time, through the agent shares of our common stock having an aggregate offering price of up to \$15.0 million.

On May 23, 2014, we entered into an amendment, or the 2014 Amendment, to the controlled equity offering sales agreement with the sales agent, pursuant to which we may offer and sell, from time to time, through the agent shares of our common stock having an aggregate offering price of up to an additional \$15.0 million. On that day, we filed a prospectus supplement to the 2011 Prospectus for use in any sales of these additional shares of common stock through July 26, 2014, the date the underlying registration statement (File No. 333-175394) expired. As a result of this expiration, the 2011 Prospectus, as supplemented on March 25, 2013 and May 23, 2014, may no longer be used for the sale of shares of common stock under the controlled equity offering sales agreement, as amended. On May 23, 2014, we also filed a new universal shelf registration statement (File No. 333-196265) containing, among other things, a prospectus, or the 2014 Prospectus, for use in sales of the common stock under the 2014 Amendment. This registration statement was declared effective on May 30, 2014. Since the expiration of the 2011 Prospectus, all sales under the controlled equity offering sales agreement, as amended, are being effected under the 2014 Prospectus.

Under the controlled equity offering sales agreement, as amended, the agent may sell shares by any method permitted by law and deemed to be an “at-the-market” offering as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, including sales made directly on NYSE MKT, or any other existing trading market for our common stock or to or through a market maker. Subject to the terms and conditions of that agreement, the agent will use commercially reasonable efforts, consistent with its normal trading and sales practices and applicable state and federal law, rules and regulations and the rules of NYSE MKT, to sell shares from time to time based upon our instructions. We are not obligated to sell any shares under the arrangement. We are obligated to pay the agent a commission of 3.0% of the aggregate gross proceeds from each sale of shares under the arrangement.

As of December 31, 2014, shares having an aggregate offering price of \$3.0 million remained available under the controlled equity offering sales agreement, as amended. During the year ended December 31, 2014, we sold 10,520,454 shares of our common stock under this arrangement resulting in net proceeds to us of approximately \$17.8 million. During the year ended December 31, 2014, we incurred offering costs of approximately \$0.1 million in connection with the controlled equity offering sales agreement, as amended.

### ***Long-Term Incentive Compensation Plan***

In 2007, the Company's stockholders approved the 2007 Long-Term Incentive Compensation Plan (the “2007 Plan”) which provides for the granting of incentive and non-qualified stock options, stock appreciation rights, performance units, restricted stock awards and performance bonuses (collectively “awards”) to Company officers and employees. Additionally, the 2007 Plan authorizes the granting of non-qualified stock options and restricted stock awards to Company directors and to independent consultants.

In 2008, our stockholders approved amendments to the 2007 Plan, increasing from 3.5 million shares to 4.6 million shares the maximum number of shares authorized for issuance under the plan and adding an evergreen provision pursuant to which the number of shares authorized for issuance under the plan would increase automatically in each year, beginning in 2009, in accordance with certain limits set forth in the 2007 Plan. Under the terms of the evergreen provision, the annual increases were to continue through 2015, subject, however, to an aggregate limitation on the number of shares that could be authorized for issuance pursuant to such increases. This aggregate limitation was reached on January 1, 2014, so that the number of shares authorized for issuance under the plan did not automatically increase on January 1, 2015. At December 31, 2014, there are approximately 10.3 million shares approved for issuance under the 2007 Plan, of which approximately 1.9 million shares are available for grant. The Board of Directors in conjunction with management determines who receives awards, the vesting conditions and the exercise price. Options may have a maximum term of ten years.

The following table summarizes the activity of the 2007 Plan for options:

	Shares	Weighted-Average Exercise Price	Weighted Average Remaining Contractual Term
<b>Options</b>			
Outstanding, January 1, 2012	6,292,982	\$ 2.74	8.0
Granted	852,139	1.22	
Exercised	(31,474)	1.24	
Forfeited	(888,035)	2.91	
Outstanding, December 31, 2012	6,225,612	\$ 2.52	7.4
Granted	240,000	1.65	
Exercised	(61,756)	1.21	
Forfeited	(390,694)	2.20	
Expired	(39,123)	2.96	
Outstanding, December 31, 2013	5,974,039	\$ 2.52	6.5
Granted	2,547,585	1.81	
Exercised	(352,718)	1.29	
Forfeited	(635,424)	2.61	
Expired	(143,588)	3.04	
Outstanding, December 31, 2014	7,389,894	2.31	6.9
Exercisable, December 31, 2014	4,624,146	\$ 2.66	5.6
Vested and expected to vest, December 31, 2014	7,058,004	\$ 2.35	6.8

The aggregate intrinsic value is calculated as the difference between (i) the closing price of the common stock at December 31, 2014 and (ii) the exercise price of the underlying awards, multiplied by the number of options that had an exercise price less than the closing price on the last trading day. Our outstanding and exercisable options had an aggregate intrinsic value of approximately \$1.3 million as of December 31, 2014.

At December 31, 2014, total compensation costs for unvested stock option awards outstanding approximated \$2.6 million, net of estimated forfeitures, which we expect to recognize as stock compensation expense over a weighted average period of 3.1 years.

***Valuation assumptions used to determine fair value of share-based compensation***

The weighted-average grant date fair value for options granted in 2014, 2013 and 2012 was \$1.30, \$1.23 and \$0.86, respectively. The aggregate intrinsic value of options exercised during the years ended December 31, 2014, 2013 and 2012 was approximately \$0.2 million, less than \$0.1 million and less than \$0.01 million respectively. The total fair value of awards vested during 2014, 2013 and 2012 was approximately \$1.4 million, \$1.4 million and \$2.1 million, respectively.



The fair value for the 2014, 2013 and 2012 awards were estimated at the date of grant using the Black-Scholes option-pricing model using the following assumptions:

	<b>December 31,</b>		
	<b>2014</b>	<b>2013</b>	<b>2012</b>
Weighted-average volatility	84%	86%	86%
Risk-free rate	1.51% - 2.25%	0.96% - 1.90%	0.79% - 1.18%
Expected annual dividend yield	-	-	-
Expected weighted-average life, in years	6.1	5.6	5.9

The valuation assumptions were determined as follows:

- **Weighted average volatility:** Beginning in the third quarter of 2013 we determined expected volatility by using our historical volatility. Prior to that period we determined expected volatility by using our historical volatility weighted 50% and the average historical volatility from comparable public companies with an expected term consistent with the expected term of our options weighted 50%.
- **Risk-free interest rate:** The yield on zero-coupon U.S. Treasury securities for a period that is commensurate with the expected term of the award.
- **Expected annual dividend yield:** The estimate for annual dividends is zero because we have not historically paid a dividend and do not intend to do so in the foreseeable future.
- **Expected life:** The expected term of the awards represents the period of time that the awards are expected to be outstanding. The Company estimated the expected term using the "simplified-method" as it does not have sufficient historical exercise data to provide a reasonable estimate.

The following table summarizes the activity of the 2007 plan for restricted shares:

	<u>Shares</u>	<u>Weighted-Average Grant Date Fair Value</u>	<u>Aggregate Intrinsic Value</u>
<b>Restricted shares</b>			
Outstanding, January 1, 2012	123,897	\$ 1.53	\$ 157,349
Granted	-	-	-
Vested	(110,564)	1.53	-
Forfeited or expired	-	-	-
Outstanding, December 31, 2012	13,333	\$ 1.59	\$ 14,933
Granted	-	-	-
Vested	(6,666)	1.59	-
Forfeited or expired	-	-	-
Outstanding, December 31, 2013	6,667	\$ 1.59	\$ 12,401
Granted	-	-	-
Vested	(6,667)	1.59	-
Forfeited or expired	-	-	-
Outstanding, December 31, 2014	-	\$ -	\$ -

## Warrants

At December 31, 2014 there were warrants outstanding to purchase 4,495,556 shares of our common stock. At December 31, 2013 and 2012, there were warrants outstanding to purchase 5,620,128 shares of our common stock, respectively. The warrants outstanding as of December 31, 2014 were as follows:

Number of Common Shares Underlying Warrants	Issue Date/Exercisable Date	Exercise Price	Expiration Date
100,778(1)	March 2007/March 2007	\$ 3.97	March 2017
2,572,775(1)	July 2009/January 2010	\$ 2.50	January 2015
500,000(2)	April 2010/October 2010	\$ 1.89	October 2015
903,996(2)	July 2010/January 2011	\$ 1.63	January 2017
371,423(2)	June 2011/June 2011	\$ 3.50	June 2016
46,584(1)	March 2012/March 2012	\$ 1.61	March 2022
<b>4,495,556</b>			

(1) These warrants to purchase common stock are classified as equity.

(2) These warrants to purchase common stock are classified as derivative liabilities. The fair value (see Note 3 – Fair Value Measurements) is remeasured at the end of every reporting period and the change in fair value is reported in the consolidated statements of operations as other income (expense).

Derivative instruments related to stock purchase warrants with 419,218 underlying common shares were exercised during the third quarter of 2014, with a fair value of \$423,739. During the same quarter, derivative instruments related to stock purchase warrants with 705,354 underlying common shares expired unexercised.

## Note 9 — Income Taxes

The actual income tax provision differs from the expected income tax provision computed at the federal statutory rate as follows:

	Year Ended December 31,		
	2014	2013	2012
Statutory federal tax benefit	\$ (3,363,841)	\$ (3,963,246)	\$ (1,604,648)
State income tax, net of federal benefit	(450,656)	(1,179,476)	(19,918)
Other permanent differences	(6,274)	(2,706,156)	4,975
Foreign rate differential	7,913	(710,512)	(80,292)
Rate change	794,807	(369,407)	388,656
Lobbying costs	57,517	98,507	122,204
Expired/forfeited options	380,689	-	193,605
Cancellation of debt limitation write off	-	6,246,942	-
Other	(308)	(1,816)	1,393,366
Subtotal	(2,580,153)	(2,585,164)	397,948
Decrease (increase) in valuation allowance	2,641,899	2,646,910	(202,419)
Income tax provision (benefit)	<u>\$ 61,746</u>	<u>\$ 61,746</u>	<u>\$ 195,529</u>

	Year Ended December 31,		
	2014	2013	2012
<b>Deferred tax assets:</b>			
Net operating loss ("NOLs") carryforwards	\$ 64,361,842	\$ 61,590,084	\$ 58,334,073
Fixed assets/intangibles	166,205	148,395	114,826
Research and development credits/loss carryforwards	3,834	1,726	3,278,995
Share-based compensation	3,458,334	3,368,571	3,047,573
Accrued expenses and other	366,797	859,358	2,789,776
<b>Total deferred tax assets</b>	<b>68,357,012</b>	<b>65,968,134</b>	<b>67,565,243</b>
<b>Deferred tax liabilities:</b>			
Intercompany bad debt	-	-	(3,978,944)
<b>Total deferred tax liabilities</b>	<b>-</b>	<b>-</b>	<b>(3,978,944)</b>
Net deferred tax assets	68,357,012	65,968,134	63,586,299
Less: Valuation allowance	(68,676,033)	(66,225,409)	(63,781,828)
<b>Net deferred tax liabilities</b>	<b>\$ (319,021)</b>	<b>\$ (257,275)</b>	<b>\$ (195,529)</b>

For the years ended December 31, 2014 and 2013, we increased the valuation allowance to fully reserve for the value of deferred tax assets. Due to continued operating losses, there is no indication that it is more likely than not that we will be able to utilize our deferred tax assets.

The U.S. federal NOLs of approximately \$153.0 million will begin to expire in various years beginning in 2022, if not limited by triggering events prior to such time. In connection with the adoption of stock-based compensation guidance in 2006, the Company elected to follow the with-and-without approach to determine the sequence in which deductions and NOLs are utilized. Under Section 382 of the U.S. Internal Revenue Code, the Company's U.S. federal NOLs may be limited due to certain underlying ownership changes of its common stock. Our most recent analysis under Section 382 determined that there has been no impact on our ability to utilize our U.S. federal NOLs as the result of any prior ownership change. We may experience ownership changes in the future as a result of subsequent shifts in our stock ownership that could result in further limitations being placed on our ability to utilize our U.S. federal NOLs. The UK net operating loss carry forwards of approximately \$21.0 million have an unlimited life.

In assessing the realizability of deferred tax assets, we consider whether it is more likely than not that some or all of the deferred tax asset will not be realized. The ultimate realization of the deferred tax asset is dependent upon the generation of future taxable income during the periods in which the net operating loss carry forwards are available. We consider projected future taxable income, the scheduled reversal of deferred tax liabilities and available tax planning strategies that can be implemented by us in making this assessment on a jurisdiction-by-jurisdiction basis. Based upon these factors, we have established a full valuation allowance against the net deferred tax asset in 2014, consistent with 2013. Also, the Company has a deferred tax liability related to tax deductible goodwill, for which the scheduled reversal is not determinable. As such, this deferred tax liability cannot be used as a source of future taxable income with which to realize the deferred tax assets. The cumulative amount of this deferred tax liability is approximately \$0.3 million at December 31, 2014 and is classified as Other long-term liabilities on the consolidated balance sheets.

We have analyzed tax positions in all jurisdictions where the Company is required to file an income tax return and have concluded that we do not have any material unrecognized tax benefits. As such, we believe that any of our uncertain tax positions would not result in adjustments to our effective income tax rate.

**Note 10 — Supplemental Financial Information (Unaudited)**

Quarterly financial information for the years ended December 31, 2014 and 2013 is presented in the following tables:

	<b>Three Months Ended</b>			
	<b>March 31,</b>	<b>June 30,</b>	<b>September 30,</b>	<b>December 31,</b>
<b>Fiscal year 2014</b>				
Revenue	\$ 3,742,525	\$ 3,658,933	\$ 962,451	\$ 1,826,296
Income (loss) from operations	(2,401,866)	(1,169,871)	(3,996,030)	(2,623,538)
Net income (loss)	(2,258,440)	(439,120)	(4,628,435)	(2,629,400)
Net income (loss) per share, basic	(0.04)	(0.01)	(0.08)	(0.04)
Net income (loss) per share, diluted	(0.04)	(0.01)	(0.08)	(0.04)
<b>Fiscal year 2013</b>				
Revenue	\$ 6,475,138	\$ 4,295,400	\$ 3,488,142	\$ 3,653,927
Income (loss) from operations	(1,090,734)	(1,481,729)	(3,199,182)	(5,067,563)
Net income (loss)	(2,111,385)	(1,236,372)	(3,945,887)	(4,424,709)
Net income (loss) per share, basic	(0.04)	(0.02)	(0.08)	(0.08)
Net income (loss) per share, diluted	(0.04)	(0.02)	(0.08)	(0.08)

Our net loss for 2013 includes approximately \$3.3 million in merger and acquisition costs associated with the terminated merger with Theraclone, inclusive of a \$1.0 million termination fee paid to Theraclone under the terms of the termination agreement entered into on December 1, 2013.

**Note 11 - Subsequent Events**

Warrants to purchase 2,572,775 shares of common stock expired on January 28, 2015 without being exercised. The warrants were classified as equity.

On March 9, 2015, The Company's Board of Directors approved a plan to preserve and maximize, for the benefit of our stockholders, the value of any proceeds from the SIGA litigation and our existing biodefense assets. The plan eliminates twenty three employees, or approximately two-thirds of our workforce, and is aimed at the preservation of cash and cash equivalents sufficient to finance our continued operations through a period of time expected to extend beyond the adjudication of SIGA's appeal of the decision of the Delaware Chancery Court awarding us \$194.6 million plus post-judgment interest. This plan is referred to as the "Realignment Plan." Under the Realignment Plan, all current executive officers are being terminated and two members of the board of directors are resigning. The terminations of the departing executive officers are without "cause" under their respective employment agreements and the departing officers will therefore receive cash payments in accordance with the terms of such agreements. The Company estimates total severance payments to executives and non-executives in connection with the Realignment Plan to amount to approximately \$2 million, with substantially all of the severance to be paid in 2015. A member of the Company's board of directors will become the President and Chief Executive Officer upon termination of the current Chief Executive Officer in March 2015.

**List of PharmAthene, Inc. subsidiaries:**

PharmAthene UK Limited

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**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement (Form S-3 No. 333-146463),
- (2) Registration Statement (Form S-3 No. 333-155692),
- (3) Registration Statement (Form S-8 No. 333-156371) pertaining to the 2007 Long-Term Incentive Compensation Plan,
- (4) Registration Statement (Form S-3 No. 333-156997),
- (5) Registration Statement (Form S-3 No. 333-124712),
- (6) Registration Statement (Form S-3 No. 333-161587),
- (7) Registration Statement (Form S-3 No. 333-175394),
- (8) Registration Statement (Form S-3 No. 333-176607), and
- (9) Registration Statement (Form S-3 No. 333-196265);

of our reports dated March 11, 2015, with respect to the consolidated financial statements of PharmAthene, Inc. and the effectiveness of internal control over financial reporting of PharmAthene, Inc. included in this Annual Report (Form 10-K) of PharmAthene, Inc. for the year ended December 31, 2014.

/s/ Ernst & Young LLP

Baltimore, Maryland  
March 11, 2015

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**Certification of Principal Executive Officer  
Pursuant to SEC Rule 13a-14(a)/15d-14(a)**

I, Eric I. Richman, certify that:

1. I have reviewed this Form 10-K of PharmAthene, Inc. for the year ended December 31, 2014;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: March 11, 2015

/s/ Eric I. Richman

Name: **Eric I. Richman**

Title: **Chief Executive Officer**

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**Certification of Principal Financial Officer  
Pursuant to SEC Rule 13a-14(a)/15d-14(a)**

I, Linda L. Chang, certify that:

1. I have reviewed this Form 10-K of PharmAthene, Inc. for the year ended December 31, 2014;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: March 11, 2015

/s/ Linda L. Chang

Name: **Linda L. Chang**

Title: **Chief Financial Officer**

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**Certification Pursuant to Section 1350 of Chapter 63  
of Title 18 of the United States Code**

In connection with the Annual Report on Form 10-K of PharmAthene, Inc. (the "Company") for the year ended December 31, 2014, as filed with the Securities and Exchange Commission (the "Report"), I, Eric I. Richman, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934.
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Eric I. Richman

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**Eric I. Richman**  
**Chief Executive Officer**  
March 11, 2015

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

This certification is being furnished pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section. This certification will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.

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**Certification Pursuant to Section 1350 of Chapter 63  
of Title 18 of the United States Code**

In connection with the Annual Report on Form 10-K of PharmAthene, Inc. (the "Company") for the year ended December 31, 2014, as filed with the Securities and Exchange Commission (the "Report"), I, Linda L. Chang, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934.
2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ Linda L. Chang

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**Linda L. Chang**  
**Chief Financial Officer**  
March 11, 2015

A signed original of this written statement required by Section 906 of the Sarbanes-Oxley Act of 2002 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

This certification is being furnished pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section. This certification will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.

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