

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, 2015

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 \$81.0 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, 2015). 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 7, 2016 was 65,251,230.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement for its 2016 Annual Meeting of Stockholders, or Annual Report on Form 10-K/A for the fiscal year ended December 31, 2015, to be filed on or before April 29, 2016, 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:

- the risk that we will not be able to collect the full amount, or any portion thereof, awarded to us by the Delaware Court of Chancery in January 2015 in connection with our claim under the lawsuit commenced in December 2006 against SIGA Technology, Inc., or SIGA,
- proceedings in, or the outcome of, SIGA’s bankruptcy,
- 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 the National Institutes of Allergy and Infectious Diseases, or NIAID,
- our ability to satisfy certain technical milestones under our September 2014 contract with NIAID that would entitle us to receive additional funding over the period of the agreement,
- the preservation of our net operating loss carryforwards, or NOLs,
- delays caused by third parties challenging government contracts awarded to us,
- unforeseen safety and efficacy issues,
- accomplishing any future strategic partnerships or business combinations,
- 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.

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:

- outcomes under SIGA’s bankruptcy proceedings,
  - 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.
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*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, 2015.*

## **PART I**

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

#### **Overview**

We are a biodefense company engaged in developing two next generation anthrax vaccines. The next generation vaccines are intended to have more rapid time to protection, fewer doses for protection and less stringent requirements for temperature controlled storage and handling than the currently used vaccine.

Since 2006, we have been engaged in legal proceedings with SIGA. On December 23, 2015, the Delaware Supreme Court affirmed the Delaware Court of Chancery's judgment against SIGA which provides an estimated total award of approximately \$205 million plus interest. Additionally, if approved by the Bankruptcy Court, a reorganization plan filed by SIGA on December 15, 2015 and as amended on February 9, 2016 provides for SIGA to emerge from bankruptcy and provides for the final resolution of PharmAthene's litigation claim against SIGA during 2016 or early 2017.

During the first half of 2015 we narrowed the scope of our product development programs, reduced our employee headcount and executed other cost reductions. These actions were intended to allow the Company to have sufficient cash to recognize the benefit of the SIGA award and advance our Anthrax vaccine programs without the need to raise additional capital. During the second half of 2015 we focused our efforts on creating alternatives for settling the SIGA litigation claim and developing business plans around possible outcomes.

The Company anticipates that eventual receipt of an award from SIGA could generate substantial taxable income to the Company, a portion of which can potentially be offset by the Company's tax net operating loss carryforwards. At December 31, 2015 we had available \$156 million in accumulated losses available to offset income, subject to limitations imposed by the Internal Revenue Code of 1986 (the "Code"). On November 25, 2015, the Company adopted a Shareholders Rights Plan to help ensure that the NOLs remain available to help maximize the value for our shareholders of any amount received from the SIGA litigation.

During 2016, we will continue to develop our plans to create shareholder value from the alternative SIGA litigation outcomes and will commence execution of those plans.

#### **Anthrax Vaccine Program Product Candidates**

During 2015, we terminated development of SparVax<sup>®</sup> to focus our resources on development of two next generation Anthrax vaccines. SparVax<sup>®</sup> was a liquid Recombinant Protective Antigen ("rPA") anthrax vaccine designed to protect against inhalational anthrax, the most lethal form of *B. anthracis* infection in humans. 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. SparVax<sup>®</sup> human clinical studies involving over 770 individuals showed that it was generally well tolerated and immunogenic. Our next generation Anthrax vaccines use rPA, rPA manufacturing processes and development technologies produced in the SparVax<sup>®</sup> program to develop vaccines intended to have significantly improved time to protection, dosing schedules, administration convenience and handling requirements compared to SparVax<sup>®</sup>.

On September 9, 2014, we signed a contract with NIAID that funds the preclinical development of a next generation lyophilized anthrax vaccine based on the Company's proprietary technology platform which contributes the rPA bulk drug substance that was used in the liquid SparVax<sup>®</sup> formulation. Data generated to date demonstrates that our rPA can be stably formulated in a lyophilized state for room temperature storage. The next phase of the program is a demonstration of the final form of the vaccine in a single unit, dual-chambered syringe designed for simpler storage and ease of use. All of the necessary components of the vaccine will be contained in a single logistics transport and storage will be greatly improved. We expect to commence animal efficacy studies of the lyophilized vaccine in the second quarter of 2016, which if successful, can lead to our filing with the U.S. Food and Drug Administration ("FDA") an Investigational New Drug Application ("IND") in 2017 and commencement of a subsequent clinical trial.

On July 6, 2015, we signed a license agreement with ImmunoVaccine Technologies ("IMV") for the exclusive use of the DepoVax<sup>™</sup> vaccine platform ("DPX"), to develop an anthrax vaccine utilizing PharmAthene's rPA. Initial efficacy data generated using the DPX adjuvant with rPA indicates that the addition of DPX may reduce the number of doses required and shorten the time necessary for protection against an Anthrax challenge. The DPX adjuvant has recently been shown to be safe and effective in a human clinical trial for a Respiratory Syncytial Virus ("RSV") vaccine based on the safety data released in October 2015 by IMV. We expect, based upon our preliminary research, but cannot guarantee, that our DPX rPA vaccine, once fully developed, will combine the proven safety and efficacy of the DPX adjuvant with the mature manufacturing of the rPA bulk drug substance, and facilitate the acceleration of our program through preclinical development and an IND filing with the FDA. We expect to file our IND with the FDA for the DPX rPA vaccine near the end of 2016 or the beginning of 2017.

We intend to seek development partners to fund development and commercialization of our next generation anthrax vaccines.

### **Stockholder Rights Plan to Preserve Value of Net Operating Loss Carryforwards**

On November 25, 2015, the Company's Board of Directors adopted a stockholder rights plan ("Rights Plan") in an effort to preserve the value of its NOLs under Section 382 of the Code. The description and terms of the rights are set forth in a Section 382 Rights Agreement, dated as of November 25, 2015 (the "Section 382 Rights Agreement"), by and between the Company and Continental Stock Transfer & Trust Company, as Rights Agent.

PharmAthene's use of its NOLs could be substantially limited if the Company experiences an "ownership change" as defined in Section 382 of the Code. In general, an ownership change occurs if there is a cumulative change in PharmAthene's ownership by 5% shareholders (as defined in Section 382 of the Code) that increases by more than 50 percentage points over the lowest percentage owned by such shareholders at any time during the prior three years on a rolling basis. The Rights Plan was adopted to reduce the likelihood of an unintended ownership change occurring.

In connection with the adoption of the Rights Plan, on November 25, 2015 (the "Rights Dividend Declaration Date"), the Board declared a non-taxable dividend distribution of one share purchase right ("Right") for each outstanding share of common stock to the Company's stockholders of record as of the close of business on December 9, 2015. The Section 382 Rights Plan is intended to act as a deterrent to any person (an "Acquiring Person") acquiring (together with all affiliates and associates of such person) beneficial ownership of 4.99% or more of the Company's outstanding common stock within the meaning of Section 382 of the Code, without the approval of the Board of Directors. Stockholders who beneficially owned 4.99% or more of the Company's outstanding common stock as of the Rights Dividend Declaration Date are not be deemed to be an Acquiring Person, but such person will be deemed an Acquiring Person if such person (together with all affiliates and associates of such person) becomes the beneficial owner of securities representing a percentage of the Company's common stock that exceeds by 0.5% or more the lowest percentage of beneficial ownership of the Company's common stock that such person had at any time since the Rights Dividend Declaration Date. In its discretion, the Board may exempt certain persons whose acquisition of securities is determined by the Board not to jeopardize the availability to the Company's NOLs or other tax benefits and may also exempt certain transactions.

Subject to the terms, provisions and conditions of the Section 382 Rights Agreement, if the Rights become exercisable, each Right would initially represent the right to purchase from the Company one one-thousandth of a share of the Company's Series A Junior Participating Preferred Stock, par value \$0.0001 per share, for a purchase price of \$6.00 per Right (the "Purchase Price"). If issued, each fractional share of Series A Junior Participating Preferred Stock would give the stockholder approximately the same dividend, voting and liquidation rights as does one share of the Company's common stock. However, prior to exercise, a Right does not give its holder any rights as a stockholder of the Company, including any dividend, voting or liquidation rights.

The Rights will expire on the earliest of (i) the close of business on November 25, 2018, (ii) the time at which the Rights are redeemed or exchanged under the Rights Plan, (iii) the repeal of Section 382 or any successor statute and the Board's determination that the Rights Plan is no longer necessary for the preservation of the Company's NOLs or (iv) the beginning of a taxable year of the Company in which the Board determines that no NOLs may be carried forward.

The issuance of the Rights is not a taxable event and will not affect the Company's reported financial condition or results of operations, including earnings per share. Additional information regarding the Rights Plan is contained in the Company's current report on Form 8-K, filed on November 25, 2015.

## **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 right to license exclusively the development and marketing rights for SIGA's drug candidate, Tecovirimat, also known as ST-246<sup>®</sup>, 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 2014, SIGA 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 (the "Bankruptcy Court"). SIGA's petition for bankruptcy initiated a process whereby its assets are protected from creditors, including PharmAthene.

In January 2015, after years of litigation, the Delaware Court of Chancery issued a final order and judgment, or the 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.

On December 15, 2015, SIGA filed a reorganization plan, amended on February 9, 2016 (the "Plan") with the Bankruptcy Court that provides for among other things, the process by which SIGA may emerge from bankruptcy, which includes the process by which PharmAthene's Judgment will be satisfied. The Plan remains subject to the approval of the Bankruptcy Court and therefore remains subject to change, withdrawal or rejection by either SIGA or the Bankruptcy Court. The Plan provides generally that PharmAthene will receive, in full settlement and satisfaction of its claim, no later than 120 days plus another potential 90 days after the Delaware Supreme Court affirms a final order, one of the following, determined in SIGA's sole discretion:

- (i) payment in full in cash of the unpaid balance of the PharmAthene claim plus interest which after plan approval shall accrue at a rate of 8.75%;
- (ii) delivery to PharmAthene of 100% of SIGA's common stock; or
- (iii) such other treatment as may be mutually agreed upon in writing by SIGA and PharmAthene and approved by the Bankruptcy Court.

SIGA has a 120-day period (plus a 90-day extension if exercised and the conditions to such extension are met) during which it must satisfy PharmAthene's claim according to one of the above alternatives. The beginning of that 120-day period depends upon whether SIGA files timely a Petition for Certiorari in the U.S. Supreme Court. If SIGA does not timely petition the U.S. Supreme Court, the 120-day period commences after March 22, 2016, which is 90 days after the Delaware Supreme Court ruling. If SIGA does timely petition the U.S. Supreme Court, the 120-day period commences when such petition is denied or that process results in a final order granting PharmAthene a claim.

Under the Plan, SIGA will pay \$5 million to PharmAthene upon plan approval. It would also pay PharmAthene \$20 million if it petitions the U.S. Supreme Court for Certiorari and an additional \$20 million if it decides to extend the 120 period by an additional 90 days. The payments are creditable against the final judgment and are not refundable.

The description of the Plan provided above is a brief summary of the Plan, which includes numerous other conditions and substantive provisions relating to the operation of the business of SIGA. Copies of the Plan are available from the Bankruptcy Court. For a description of risks related to our ability to recognize value relating to this litigation, see the "Risk Factors" section of this annual report below.

On December 23, 2015, the Delaware Supreme Court affirmed the Delaware Court of Chancery's Judgment as a result of which, with additional post-judgment interest, if calculated based on the original decision, would provide for an estimated total award of approximately \$205 million. However, PharmAthene's entitlement to interest from and after SIGA's bankruptcy filing may be negatively impacted by the proceedings before the Bankruptcy Court.

There can be no assurances if and when the Company will receive any payments from SIGA as a result of the Judgment. SIGA has indicated in filings with the Bankruptcy Court 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. 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. The Company's ability to collect a money judgment from SIGA remains subject to further proceedings in the Bankruptcy Court.

#### **Post-SIGA Payment Plans:**

In the event that SIGA pays PharmAthene cash in full and barring any unexpected material events, PharmAthene currently expects that it will distribute at least 90% of the after tax net cash proceeds to its shareholders. The timing and form of distribution will depend upon the Company's analysis of the Company's current situation, applicable corporate statutes relating to distributions and the economic consequences to the shareholders. After distribution of these cash proceeds, we intend to seek an M&A transaction to maximize the value of the Company's remaining assets and anthrax vaccine programs.

The Company will develop a transition plan and strategy for operating SIGA as a separate business in the event SIGA chooses to settle our claim by turning over 100% of its common stock to the Company.

#### **Background**

We have been engaged in the biodefense business through our predecessor entity since our inception in 2001. 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, Inc., through its wholly owned subsidiary PharmAthene UK Limited, acquired from Avecia Biologics Limited the rights to develop SparVax<sup>®</sup>. In 2009, the contract was novated from PharmAthene UK Limited to PharmAthene, Inc. In June 2015, we substantially completed the liquidation of PharmAthene UK Limited.

We are a Delaware corporation with executive offices 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.

#### **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 FDA under the Public Health Service Act and Federal Food, Drug, and Cosmetic Act, or FFDCA, 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 IND, which must be in effect before clinical trials may commence;
- submission to the FDA of a Biologics License Application (“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 will rely on the Animal Rule for our product candidates because we cannot ethically expose humans to anthrax. 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 Project BioShield, the Secretary of DHHS may, with the concurrence of the Secretary of the Department of Homeland Security 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, 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 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.

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;
- 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.

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 material 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
Method for Assaying Antigens	212118	Israel	October 2, 2009	October 2, 2029
	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

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. 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.

## **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 contract 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.

## **Employees**

As of December 31, 2015, we employed 11 persons, including five 5 individuals engaged in research and development activities and 6 individuals engaged in general and administrative functions, such as human resources, finance and accounting. 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 \$10.6 million, \$10.2 million and \$17.9 million during the fiscal years ended December 31, 2015, 2014 and 2013, respectively. As of December 31, 2015 our contract with NIAID was funded for approximately \$10.1 million, of which approximately \$4.5 million and \$0.6 million was recognized as revenue during the years ended December 31, 2015 and 2014, respectively.

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, 2015 Compared to December 31, 2014” and “– Year Ended December 31, 2014 Compared to December 31, 2013.” 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, 2015, 2014 and 2013, all revenues from external customers were attributed to United States customers. Our country of domicile is the United States. As of December 31, 2015, 2014 and 2013, 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, 2015, 2014 and 2013, we spent approximately \$5.1 million, \$9.3 million and \$15.3 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. History of Losses: Limited Resources.**

***We have experienced a significant decline in revenues, a trend which we expect will continue. All of our immediately foreseeable future revenues relate to one contract with the U.S. Government. We will not achieve sufficient revenues from this agreement to attain profitability.***

We have incurred significant losses since we commenced operations. As of December 31, 2015, we had accumulated losses of \$223.7 million since our inception, and had net losses of approximately \$3.4 million, \$10.0 million and \$11.7 million during the last three years, respectively. 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 while waiting for the collection of the amount awarded to us by the Delaware Chancery Court’s affirmed judgment.

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 maintain our operations, we may be unable to maximize the value of the SIGA litigation and our existing biodefense assets. We also cannot assure you that we have accurately estimated the cash and cash equivalents necessary to finance our operations until we have received SIGA’s payment, if any. 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 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.

***Even though the Delaware Court of Chancery has found that we are entitled to receive lump sum damages for the value of the our lost profits for Tecovirimat, our ability to collect a monetary judgment, including post-petition interest, from SIGA remains subject to further proceedings in the Federal Bankruptcy Court, which precludes the current calculation of a predictable value of the SIGA litigation. Uncertainties include SIGA’s filing for relief under Chapter 11 of the United States Bankruptcy Code, which protects its assets from creditors, including us.***

There can be no assurances if and when the Company will receive any payments from SIGA as a result of the Judgment. SIGA has indicated in filings with the Bankruptcy Court 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. 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, including with respect to the Judgment. The Company’s ability to collect a money judgment from SIGA remains subject to further proceedings in the Bankruptcy Court.

***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, 2015, we had U.S. federal NOLs of \$156.3 million. The \$156.3 million in U.S. federal NOLs will begin to expire in various years between 2022 and 2035, 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. Calculations pursuant to Section 382 of the Internal Revenue Code can be very complicated and no assurance can be given that upon further analysis, our ability to take advantage of our NOLs may be limited to a greater extent than we currently anticipate. 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.

On November 25, 2015, our Board of Directors approved a Section 382 rights plan (the "Rights Plan") in an effort to protect our NOLs. We intend to submit the Rights Plan to a stockholder vote at the Company's 2016 annual meeting of stockholders. If the Company's stockholders do not approve the Rights Plan, we intend to terminate the plan. Although the Rights Plan is intended to reduce the likelihood of an "ownership change" that could adversely affect utilization of our NOLs, there is no assurance that the Rights Plan will prevent all transfers that could result in such an "ownership change."

The Rights Plan could make it more difficult for a third party to acquire, or could discourage a third party from acquiring, a large block of our common stock. A third party that acquires 4.9% or more of our common stock could suffer substantial dilution of its ownership interest under the terms of the Rights Plan. This may adversely affect the marketability of our common stock by discouraging existing or potential investors from acquiring our stock or additional shares of our stock. It is also possible that the Rights Plan could delay or frustrate the removal of incumbent directors and could make more difficult a merger, tender offer or proxy contest involving us, or impede an attempt to acquire a significant or controlling interest in us, even if such events might be beneficial to us and our stockholders.

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

***We have not commercialized any products or recognized any revenues from sales. 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 for 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.

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.***

We will be seeking to identify 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.

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

***All of our immediately foreseeable future revenues relate to our contract with the U.S. Government. We will not achieve sufficient revenues from this 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 revenue 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 BDS 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<sup>®</sup> 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.

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

During 2015, BARDA audited previous years of indirect costs charged by us on the SparVax<sup>®</sup> contract. Depending on the outcome of the audit, our receipt of revenue during 2016 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.***

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 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.

***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.

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.

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**

***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. We have recently reduced our workforce and otherwise limited our business activities. 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, 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 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, 2015, 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, 2015, we had outstanding options to purchase approximately 4.2 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, 2015, we had issued and outstanding warrants to purchase up to approximately 1.4 million shares of common stock (including the warrants mentioned in the preceding paragraph), all of which remain outstanding on March 7, 2016.

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.***

We have never paid any dividends on our common stock. We may intend to declare 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 1B. 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. On September 2, 2015, the Company entered into a sublease agreement with a third party with respect to a portion of its leased space. 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 2014, SIGA filed a voluntary petition for relief under Chapter 11 of the United States Bankruptcy Code in the Bankruptcy Court. SIGA's petition for bankruptcy initiated a process whereby its assets are protected from creditors, including PharmAthene.

In January 2015, after years of litigation, 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>, 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.

On December 15, 2015, SIGA filed the Plan, amended on February 9, 2016 with the Bankruptcy Court that provides for among other things, the process by which SIGA may emerge from bankruptcy, which includes the process by which PharmAthene's Judgment may be satisfied. The Plan remains subject to the approval of the Bankruptcy Court and therefore remains subject to change, withdrawal or rejection by either SIGA or the Bankruptcy Court. The Plan provides generally that PharmAthene will receive, in full settlement and satisfaction of its claim, no later than 120 days plus another potential 90 days after the Delaware Supreme Court affirms a final order, one of the following, determined in SIGA's sole discretion:

- (i) payment in full in cash of the unpaid balance of the PharmAthene claim plus interest;
- (ii) delivery to PharmAthene of 100% of SIGA's common stock; or
- (iii) such other treatment as may be mutually agreed upon in writing by SIGA and PharmAthene and approved by the Bankruptcy Court.

SIGA has a 120-day period (plus a 90-day extension if exercised and the conditions to such extension are met) during which it must satisfy PharmAthene's claim according to one of the above alternatives. The beginning of that 120-day period depends upon whether SIGA files timely a Petition for Certiorari in the U.S. Supreme Court. If SIGA does not timely petition the U.S. Supreme Court, the 120-day period commences after March 22, 2016, which is 90 days after the Delaware Supreme Court ruling. If SIGA does timely petition the U.S. Supreme Court, the 120-day period commences when such petition is denied or that process results in a final order granting PharmAthene a claim.

Under the Plan, SIGA will pay \$5 million to PharmAthene upon plan approval. It would also pay PharmAthene \$20 million if it petitions the U.S. Supreme Court for Certiorari and an additional \$20 million if it decides to extend the 120 period by an additional 90 days. The payments are creditable against the final judgment and are not refundable.

The description of the Plan provided above is a brief summary of the Plan, which includes numerous other conditions and substantive provisions relating to the operation of the business of SIGA. Copies of the Plan are available from the Bankruptcy Court. For a description of risks related to our ability to recognize value relating to this litigation, see the "Risk Factors" section of this annual report.

On December 23, 2015, the Delaware Supreme Court affirmed the Delaware Court of Chancery's decision as a result of which, with additional post-judgment interest, if calculated based on the original decision, would provide for an estimated total award of approximately \$205 million. However, PharmAthene's entitlement to interest from and after SIGA's bankruptcy filing may be negatively impacted by the proceedings before the Bankruptcy Court.

There can be no assurances if and when the Company will receive any payments from SIGA as a result of the Judgment. SIGA has indicated in filings with the Bankruptcy Court 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. 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. 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 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.

Fiscal Year 2015	High	Low
4th Quarter ended December 31	\$ 1.95	\$ 1.33
3rd Quarter ended September 30	\$ 1.93	\$ 1.30
2nd Quarter ended June 30	\$ 1.84	\$ 1.55
1st Quarter ended March 31	\$ 1.77	\$ 1.49

Fiscal Year 2014	High	Low
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

## Holders

As of March 7, 2016, we had 67 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

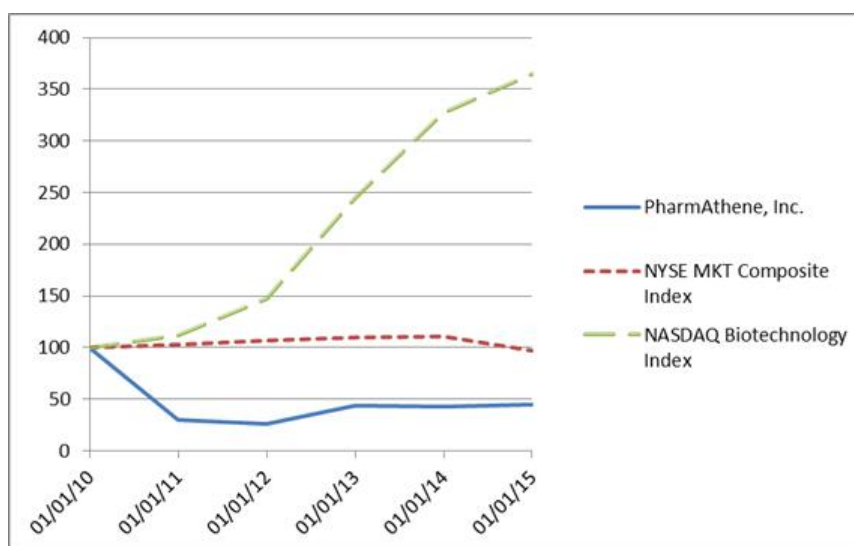
We have never paid any dividends on our common stock. We may intend to declare dividends in the foreseeable future. We make no assurances that we will ever pay dividends, cash or otherwise. Whether we pay any dividends in the future will depend on our financial condition, results of operations, and other factors that the Board of Directors will consider.

## Performance Graph

The following line graph compares the cumulative total stockholder return through December 31, 2015, assuming reinvestment of dividends, by an investor who invested \$100 on December 31, 2010 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 12/31/2010 in stock or index, including reinvestment of dividends. Fiscal year ending December 31.

	December 31,					
	2010	2011	2012	2013	2014	2015
PharmAthene, Inc.	\$ 100.00	\$ 30.02	\$ 26.48	\$ 43.97	\$ 42.79	\$ 44.92
NYSE MKT Composite Index	\$ 100.00	\$ 103.17	\$ 106.67	\$ 109.86	\$ 110.68	\$ 97.32
NASDAQ Biotechnology Index	\$ 100.00	\$ 111.81	\$ 147.48	\$ 244.24	\$ 327.52	\$ 364.93

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, 2015, 2014, and 2013 and the consolidated balance sheet data as of December 31, 2015 and 2014 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, 2012 and 2011 and the consolidated balance sheet data as of December 31, 2013, 2012, and 2011 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**

	<b>Year Ended December 31,</b>				
	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>
<b>Statements of operations data:</b>					
Revenue	\$ 10,640,660	\$ 10,190,205	\$ 17,912,607	\$ 25,175,887	\$ 24,266,274
<b>Operating expenses:</b>					
Research and development	5,133,512	9,319,828	15,290,142	19,509,629	21,219,853
General and administrative	6,222,185	10,911,724	13,279,186	11,628,732	14,311,079
Restructuring expense	2,546,159	-	-	-	-
Depreciation and amortization	141,604	149,958	182,487	303,916	461,073
<b>Total operating expenses</b>	<b>14,043,460</b>	<b>20,381,510</b>	<b>28,751,815</b>	<b>31,442,277</b>	<b>35,992,005</b>
Loss from operations	(3,402,800)	(10,191,305)	(10,839,208)	(6,266,390)	(11,725,731)
<b>Other income (expense):</b>					
Interest expense, net	(54,581)	(210,399)	(366,706)	(324,753)	(37,913)
Realization of cumulative translation adjustment	(229,192)	-	-	1,227,656	-
Change in fair value of derivative instruments	299,477	508,817	(444,622)	591,039	7,144,983
Other income (expense)	8,137	(762)	(6,071)	47,862	39,328
Gain on the sale of assets held for sale	-	-	-	-	781,760
<b>Total other income (expense)</b>	<b>23,841</b>	<b>297,656</b>	<b>(817,399)</b>	<b>1,541,804</b>	<b>7,928,158</b>
Net loss before income taxes	(3,378,959)	(9,893,649)	(11,656,607)	(4,724,586)	(3,797,573)
Provision for income taxes	(61,746)	(61,746)	(61,746)	(195,529)	-
<b>Net loss</b>	<b>\$ (3,440,705)</b>	<b>\$ (9,955,395)</b>	<b>\$ (11,718,353)</b>	<b>\$ (4,920,115)</b>	<b>\$ (3,797,573)</b>
Basic and diluted net loss per share	\$ (0.05)	\$ (0.17)	\$ (0.23)	\$ (0.10)	\$ (0.08)
<b>Weighted average shares used in calculation of basic and diluted net loss per share</b>					
	63,986,013	57,535,325	50,659,116	48,323,067	47,331,763

	<b>As of December 31,</b>				
	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>
<b>Balance sheet data:</b>					
Cash and cash equivalents	\$ 15,569,813	\$ 18,643,351	\$ 10,480,979	\$ 12,701,517	\$ 11,236,771
Working capital	15,047,425	16,668,843	7,543,127	12,307,429	14,997,664
Total assets	19,862,397	21,978,241	17,139,289	22,741,404	22,803,509
Total long-term liabilities	1,033,839	1,122,307	3,007,596	3,579,148	2,336,361
Total stockholders' equity	16,649,117	18,274,145	7,335,712	11,673,840	15,851,806

## 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, 2015, 2014 and 2013, as well as our financial positions at December 31, 2015 and 2014, 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

We are a biodefense company engaged in developing two next generation anthrax vaccines. The next generation vaccines are intended to have more rapid time to protection, fewer doses for protection and less stringent requirements for temperature controlled storage and handling than the currently used vaccine.

Since 2006, we have been engaged in legal proceedings with SIGA. On December 23, 2015, the Delaware Supreme Court affirmed the Delaware Court of Chancery's judgment against SIGA which provides an estimated total award of approximately \$205 million plus interest. Additionally, if approved by the Bankruptcy Court, a reorganization plan filed by SIGA on December 15, 2015 and as amended on February 9, 2016 provides for SIGA to emerge from bankruptcy and provides for the final resolution of PharmAthene's litigation claim against SIGA during 2016 or early 2017.

During the first half of 2015 we narrowed the scope of our product development programs, reduced our employee headcount and executed other cost reductions. These actions were intended to allow the Company to have sufficient cash to recognize the benefit of the SIGA award and advance our Anthrax vaccine programs without the need to raise additional capital. During the second half of 2015 we focused our efforts on creating alternatives for settling the SIGA litigation claim and developing business plans around possible outcomes.

The Company anticipates that eventual receipt of an award from SIGA could generate substantial taxable income to the Company, a portion of which can potentially be offset by the Company's tax net operating loss carryforwards. At December 31, 2015 we had available \$156 million in accumulated losses available to offset income, subject to limitations imposed by the Internal Revenue Code of 1986 (the "Code"). On November 25, 2015, the Company adopted a Shareholders Rights Plan to help ensure the net operating losses ("NOLs") remain available to help maximize the value for our shareholders any amount received from the SIGA litigation.

During 2016 we will continue to develop our plans to create shareholder value from the alternative SIGA litigation outcomes and will commence execution of those plans.

### SIGA Litigation

On December 15, 2015, SIGA filed a reorganization plan, amended on February 9, 2016 (the "Plan") with the Bankruptcy Court that provides for among other things, the process by which SIGA may emerge from bankruptcy, which includes the process by which PharmAthene's Judgment will be satisfied. The Plan remains subject to the approval of the Bankruptcy Court and therefore remains subject to change, withdrawal or rejection by either SIGA or the Bankruptcy Court. The Plan provides generally that PharmAthene will receive, in full settlement and satisfaction of its claim, no later than 120 days plus another potential 90 days after the Delaware Supreme Court affirms a final order, one of the following, determined in SIGA's sole discretion:

- (i) payment in full in cash of the unpaid balance of the PharmAthene claim plus interest which after plan approval shall accrue at a rate of 8.75%;
- (ii) delivery to PharmAthene of 100% of SIGA's common stock; or
- (iii) such other treatment as may be mutually agreed upon in writing by SIGA and PharmAthene and approved by the Bankruptcy Court.

On December 23, 2015, the Delaware Supreme Court affirmed the Delaware Court of Chancery's decision as a result of which, with additional post-judgment interest, if calculated based on the original decision would provide for an estimated total award of approximately \$205 million. However, PharmAthene's entitlement to interest from and after SIGA's bankruptcy filing may be negatively impacted by the proceedings before the Bankruptcy Court.

In the event that SIGA pays PharmAthene cash in full and barring any unexpected material events, PharmAthene currently expects that it will distribute at least 90% of the after tax net cash proceeds to its shareholders. The timing and form of distribution will depend upon the Company's analysis of the Company's current situation, applicable corporate statutes relating to distributions and the economic consequences to the shareholders. After distribution of these cash proceeds, we intend to seek an M&A transaction to maximize the value of the Company's remaining assets and anthrax vaccine programs.

## 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. 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 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:

- 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 years ended December 31, 2015 and December 31, 2014 we did not record any reimbursements from cost reimbursable grants. For the year ended December 31, 2013, we recorded approximately \$0.02 million 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 (“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 option pricing 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. 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.

### **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, 2015 Compared to December 31, 2014**

#### **Revenue**

We recognized revenue of \$10.6 million and \$10.2 million during the years ended December 31, 2015 and 2014, respectively.

<b>Revenue (\$ in millions)</b>	<b>Year ended December 31,</b>		
	<b>2015</b>	<b>2014</b>	<b>% Change</b>
SparVax <sup>®</sup> and next generation anthrax vaccine	\$ 10.6	\$ 8.7	21.8%
rBChE bioscavenger	-	0.5	(100.0)%
Valortim <sup>®</sup>	-	1.0	100.0%
Total revenue	<u>\$ 10.6</u>	<u>\$ 10.2</u>	<u>3.9%</u>



During 2015, our revenue was derived from contracts with the U.S. Government for the development of anthrax vaccine programs. During 2014, our revenue was derived from contracts with the U.S. Government for the development of anthrax vaccine programs, our rBChE bioscavenger, and Valortim<sup>®</sup>. Our revenue changed in 2015 from 2014 primarily due to the following:

- Under our contract for the development of SparVax<sup>®</sup> (the liquid second generation rPA) with BARDA, we recognized \$6.1 million and \$8.1 million of revenue for the years ended December 31, 2015 and 2014, respectively. During 2015, revenue was primarily attributable to the receipt of a one-time payment as a result of an audit completed by BARDA and contract wind-up activity. 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. The contract formally expired on February 28, 2015. We anticipate that revenue for this program will be mostly for rate variances and will be significantly less in 2016 than in 2015.

In 2014, BARDA audited indirect costs or rates charged by us on the SparVax<sup>®</sup> contract for the years 2008 through 2013. We billed and recognized revenue using the provisional rates as defined in the contract. As a result of the audit, we recognized revenue and received payment of \$5.8 million in the first quarter of 2015, representing the difference between actual rates (i.e., actual cost to us) and the provisional rates used to calculate previously billed and recognized revenue.

BARDA has audited our 2014 costs related to the partial termination for convenience of the SparVax<sup>®</sup> contract and forwarded the results to the pertinent U.S. Government Contracting Officer. 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. The Company has billed and recognized revenue using the provisional rates as defined in the contract. While the actual rates for 2014, which reflect the actual costs incurred by us, have been higher than the provisional rates, 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, if any.

On September 9, 2014, we entered into 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 2015 we recognized \$4.5 million in revenue, including milestone revenue of \$0.2 million. We recognized \$0.6 million in revenue for the year ended December 31, 2014. Revenue recognized to date under this contract is \$5.1 million. 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. NIAID exercised the first and second options under this agreement in September 2015 and December 2015, respectively. The exercised options provide additional funding of approximately \$4.9 million. 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 last approximately five years. If NIAID does not exercise any additional options, the contract would expire by its terms on April 30, 2017.

- Our contract with Chemical Biological Medical Systems ("CBMS"), for our second generation rBChE bioscavenger ended on September 8, 2014. We do not foresee any additional funding for this program and expect that revenues from this program in the future will be minimal. Revenue in support of contract activities for the year ended December 31, 2014 was \$0.5 million.

- With respect to our Valortim<sup>®</sup> development program, we did not recognize any revenue in 2015 compared to \$1.0 million of revenue in 2014. 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 \$5.1 million and \$9.3 million for the years ended December 31, 2015 and 2014, respectively, representing a year-over-year decrease of \$4.2 million, or 45.2%. 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, 2015 and 2014 were attributable to research programs as follows:

Expenses (\$ in millions)	Year Ended December 31,		
	2015	2014	% Change
SparVax <sup>®</sup> , next generation anthrax vaccine and Valortim <sup>®</sup>	\$ 5.1	\$ 8.9	(42.7)%
rBChE bioscavenger	-	0.4	(100.0)%
Total research and development expenses	\$ 5.1	\$ 9.3	(45.2)%

For the year ended December 31, 2015, research and development expenses decreased \$4.2 million from 2014, 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 expiration of the period of performance under our rBChE bioscavenger contract on September 8, 2014. In accordance with the Company's Realignment Plan, labor and related indirect costs decreased. Costs were incurred in 2015 to further the NIAID (lyophilized) 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 decreased by \$4.7 million, or 43.0%, to \$6.2 million for the year ended December 31, 2015, from \$10.9 million for 2014. The reduction in expenses is primarily due to a reduction in employee costs resulting from our implementation of the Realignment Plan and a reduction in legal expenses.

#### Other Income (Expense)

Other income (expense) primarily consists of the realization of cumulative translation on the substantial liquidation of our wholly-owned United Kingdom subsidiary, PharmAthene UK Limited, changes in the fair value of our derivative financial instruments and interest expense on our debt and other financial obligations. Other income was \$0.02 million and \$0.3 million for the years ended December 31, 2015 and 2014, respectively, resulting in a decrease in other income of approximately \$0.3 million, or 92.0%.

In June 2015, we substantially liquidated our United Kingdom subsidiary, PharmAthene UK Limited, which we had acquired in 2008. Prior to substantially liquidating the UK subsidiary, currency fluctuations were recorded as foreign currency translation adjustments, a component of other comprehensive income. As a result of the substantially completed liquidation, we realized an approximate loss of \$0.2 million in our consolidated statement of operations, which represents the amount of previously recorded foreign currency translation adjustments related to our UK subsidiary.

Other income related to the change in the fair value of our derivative instruments was \$0.3 million and \$0.5 million for years ended December 31, 2015 and 2014, respectively.

#### Income Taxes

The provision for income taxes was \$0.1 million during the years ended December 31, 2015 and 2014. 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, 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	\$ 10.2	\$ 17.9	(43.0)%

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 2014 from 2013 primarily due to the following:

- Under our contract for the development of SparVax<sup>®</sup> (the liquid second generation rPA) with BARDA, we recognized approximately \$8.1 million and \$15.5 million of revenue for years ended December 31, 2014 and 2013, respectively, a decrease of \$7.4 million, or 47.7%, from 2013. 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. For more recent developments and trends relating to the SparVax<sup>®</sup> program, please refer to “- Year Ended December 31, 2015 Compared to Year Ended December 31, 2014.”

Under our contract entered into on September 9, 2014 with NIAID for the development of a next generation lyophilized anthrax vaccine, we recognized approximately \$0.6 million of revenue for the years ended December 31, 2014. For more recent developments and trends relating to the next generation lyophilized anthrax vaccine program, please refer to “- Year Ended December 31, 2015 Compared to Year Ended December 31, 2014.”

- Under our contract for our second generation rBChE bioscavenger, we recognized approximately \$0.5 million and \$2.4 million of revenue for the years ended December 31, 2014 and 2013, respectively, a decrease of \$1.9 million, or 79.2%, from 2013. In 2014, our activities were focused on the execution and completion of planned pharmacokinetic 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. For more recent developments and trends relating to the rBChE bioscavenger program, please refer to “- Year Ended December 31, 2015 Compared to Year Ended December 31, 2014.”
- With respect to our Valortim<sup>®</sup> development program, we recognized \$1.0 million revenue in 2014 as compared to no revenue in 2013, 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, 2015 Compared to Year Ended December 31, 2014.”

### 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, a decrease of \$6.0 million, or 39.2%, from 2013. 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 year ended December 31, 2013 were net of cost reimbursements under certain of our government grants of \$0.02 million, respectively. No such cost reimbursements were recognized during the year ended December 31, 2014. 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 17.8%, to \$10.9 million for the year ended December 31, 2014, from \$13.3 million for 2013. This change from 2013 to 2014 was primarily due to merger and acquisition expenses incurred in 2013, which did not result in successful completion of a merger, partially offset by increased share-based compensation expenses and severance costs in 2014.

### **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.

### **Liquidity and Capital Resources**

#### **Overview**

Our primary sources of cash during 2015 were amounts paid under our contract with NIAID, the receipt of a \$5.8 million one-time payment as the result of an audit completed by BARDA, and proceeds received from the issuance of common stock due to stock options exercised. Our primary sources of cash during 2014 were proceeds from sales of shares of our common stock under our controlled equity offering arrangement, proceeds from the exercise of warrants and amounts paid under our contract with NIAID.

As noted above, in 2014, BARDA audited indirect costs or rates charged by us on the SparVax<sup>®</sup> contract for the years 2008 through 2013. We had billed and recognized revenue using the provisional rates as defined in the contract. As a result of the audit, we were able to record revenue and receive payment of \$5.8 million in the first quarter of 2015, representing the difference between actual rates (i.e., actual cost to us) and the provisional rates used to calculate previously billed and recognized revenue. BARDA has audited our 2014 costs related to the partial termination for convenience of the SparVax<sup>®</sup> contract. 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; furthermore, in 2014, we believe that our actual rates exceeded our provisional rates.

Our sole sources of revenue consist of (1) revenues related to the audit of the BARDA contract 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. NIAID exercised the first and second options under this agreement in September 2015 and December 2015, respectively. The exercised options provide additional funding of approximately \$4.9 million and an extension of the period of performance through April 30, 2017. 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 last approximately five years. If NIAID does not exercise any additional options, the contract would expire by its terms on April 30, 2017. 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, 2015, we had accumulated losses of \$223.7 million since our inception.

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. During the year ended December 31, 2015, we did not sell any shares of our common stock under this arrangement. Aggregate gross proceeds of up to \$3.0 million remain available under this arrangement. We have no current plans to sell any shares under the controlled equity agreement.

On September 3, 2015, we satisfied in full our remaining obligations under our March 2012 Loan Agreement with General Electric Capital Corporation ("GE"). The termination of the Loan Agreement released us from our obligations under the Loan Agreement, which were collateralized by a security interest in substantially all of our assets.

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 eliminated approximately two-thirds of our workforce and aimed to preserve sufficient cash and cash equivalents to finance our continued operations through a period of time expected to extend beyond our collection of the amount awarded to us by the Delaware Chancery Court's affirmed judgment. We intend to maintain sufficient resources and personnel so that we may 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 \$2.0 million. Severance payments of approximately \$1.9 million were 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 maintain our operations, we may be unable to maximize the value of the SIGA litigation and our existing biodefense assets. In addition, executive officers who have served the Company for many years have been terminated, and, with the exception of Eric 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 we have received SIGA's payment, if at all. 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 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, 2015, 2014 and 2013.

	Year Ended December 31,		
	2015	2014	2013
Net cash provided by (used in):			
Operating activities	\$ (3,215,981)	\$ (8,474,042)	\$ (7,168,204)
Investing activities	(78,907)	(84,269)	(81,079)
Financing activities	223,125	16,733,524	5,030,127
Effects of exchange rates on cash	(1,775)	(12,841)	(1,382)
Total (decrease) increase in cash and cash equivalents	<u>\$ (3,073,538)</u>	<u>\$ 8,162,372</u>	<u>\$ (2,220,538)</u>

### Sources and Uses of Cash

Cash and cash equivalents were \$15.6 million, \$18.6 million and \$10.5 million at December 31, 2015, 2014 and 2013, respectively. The \$3.1 million decrease at December 31, 2015 compared to December 31, 2014 was primarily attributable to \$3.2 million of cash used in operations, the \$0.8 million repayment of the GE term loan, and \$0.1 million in purchases of fixed assets, partially offset by \$1.0 million in proceeds from stock option exercises. 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 a terminated merger agreement, 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 \$3.2 million, \$8.5 million and \$7.2 million for the years ended December 31, 2015, 2014 and 2013, respectively.

Net cash used by operating activities during 2015 primarily reflects our net loss of \$3.4 million, adjusted for \$0.6 million for non-cash share-based compensation expense, the realization of a cumulative translation adjustment of \$0.2 million, \$0.2 million for other non-cash expenses, offset by the decrease in the fair value of our derivative instruments of \$0.3 million. Receivables (billed and unbilled) increased by \$1.1 million, accounts payable increased \$0.1 million, and accrued restructuring expenses were \$0.5 million.

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.

We anticipate cash generated by contracts will be significantly lower in 2016 than in prior periods.

## ***Investing Activities***

There were no significant investing activities for the years ended December 31, 2015, 2014 and 2013, respectively.

## ***Financing Activities***

Net cash provided by financing activities was \$0.2 million for the year ended December 31, 2015, as compared to \$16.7 million for the year ended December 31, 2014 and \$5.0 million for the year ended December 31, 2013.

Net cash provided by financing activities for the year ended December 31, 2015 was primarily due to \$1.0 million in proceeds received from the issuance of common stock due to stock options exercised, partially offset by a \$0.8 million repayment of the GE term loan.

Net cash provided by financing activities for the year ended December 31, 2014 was primarily due net proceeds received of \$18.1 million from the sale of our common stock under the controlled equity offering arrangement and \$0.7 million from the exercise of warrants, partially offset by a \$2.1 million repayment of the GE loans.

Net cash provided by financing activities for the year ended December 31, 2013 was principally the result of net proceeds received of \$6.0 million from the sale of our common stock under the controlled equity offering arrangement, partially offset by a \$0.2 million repayment of the GE revolving credit agreement and \$0.8 million repayment of the GE term loan.

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 (“ 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 2015, we did not generate 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 have no current plans to sell any shares under the controlled equity agreement.

## **Off-Balance Sheet Arrangements**

We do not have any off-balance sheet arrangements.

## **Contractual Obligations**

The following are contractual commitments at December 31, 2015:

<b>Contractual Obligations<sup>(1)</sup></b>	<b>Total</b>	<b>Less than 1 Year</b>	<b>1-3 Years</b>	<b>3-5 Years</b>	<b>More than 5 Years</b>
Operating facility leases	\$ 1,205,184	\$ 848,273	\$ 356,911	\$ -	\$ -
Research and development agreements	717,784	717,784	-	-	-
<b>Total contractual obligations</b>	<b>\$ 1,922,968</b>	<b>\$ 1,566,057</b>	<b>\$ 356,911</b>	<b>\$ -</b>	<b>\$ -</b>

- (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.
- (2) Lease obligations have not been reduced by the minimum sublease rentals of \$0.2 million due in the future under noncancellable subleases.

#### **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 have substantially liquidated our UK subsidiary. 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.

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, 2015, would have resulted in a change in fair value of derivative instruments and our earnings of approximately \$0.1 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, 2015. Based upon this evaluation, our management has concluded that our disclosure controls and procedures were effective as of December 31, 2015.

##### **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, 2015. 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, 2015, 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, 2016 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 November 25, 2015, the Company's Board of Directors adopted a stockholder rights plan ("Rights Plan") in an effort to preserve the value of its net operating loss carryforwards ("NOLs") under Section 382 of the Internal Revenue Code (the "Code"). The description and terms of the rights are set forth in a Section 382 Rights Agreement, dated as of November 25, 2015 (the "Section 382 Rights Agreement"), by and between the Company and Continental Stock Transfer & Trust Company, as Rights Agent.

PharmAthene's use of its NOLs could be substantially limited if the Company experiences an "ownership change" as defined in Section 382 of the Code. In general, an ownership change occurs if there is a cumulative change in PharmAthene's ownership by 5% shareholders (as defined in Section 382 of the Code) that increases by more than 50 percentage points over the lowest percentage owned by such shareholders at any time during the prior three years on a rolling basis. The Rights Plan was adopted to reduce the likelihood of an unintended ownership change occurring.

In connection with the adoption of the Rights Plan, on November 25, 2015 (the "Rights Dividend Declaration Date"), the Board declared a non-taxable dividend distribution of one share purchase right ("Right") for each outstanding share of common stock to the Company's stockholders of record as of the close of business on December 9, 2015. The Section 382 Rights Plan is intended to act as a deterrent to any person (an "Acquiring Person") acquiring (together with all affiliates and associates of such person) beneficial ownership of 4.99% or more of the Company's outstanding common stock within the meaning of Section 382 of the Code, without the approval of the Board of Directors. Stockholders who beneficially owned 4.99% or more of the Company's outstanding common stock as of the Rights Dividend Declaration Date are not be deemed to be an Acquiring Person, but such person will be deemed an Acquiring Person if such person (together with all affiliates and associates of such person) becomes the beneficial owner of securities representing a percentage of the Company's common stock that exceeds by 0.5% or more the lowest percentage of beneficial ownership of the Company's common stock that such person had at any time since the Rights Dividend Declaration Date. In its discretion, the Board may exempt certain persons whose acquisition of securities is determined by the Board not to jeopardize the availability to the Company's NOLs or other tax benefits and may also exempt certain transactions.

Subject to the terms, provisions and conditions of the Section 382 Rights Agreement, if the Rights become exercisable, each Right would initially represent the right to purchase from the Company one one-thousandth of a share of the Company's Series A Junior Participating Preferred Stock, par value \$0.0001 per share, for a purchase price of \$6.00 per Right (the "Purchase Price"). If issued, each fractional share of Series A Junior Participating Preferred Stock would give the stockholder approximately the same dividend, voting and liquidation rights as does one share of the Company's common stock. However, prior to exercise, a Right does not give its holder any rights as a stockholder of the Company, including any dividend, voting or liquidation rights.

The Rights will expire on the earliest of (i) the close of business on November 25, 2018, (ii) the time at which the Rights are redeemed or exchanged under the Rights Plan, (iii) the repeal of Section 382 or any successor statute and the Board's determination that the Rights Plan is no longer necessary for the preservation of the Company's NOLs or (iv) the beginning of a taxable year of the Company in which the Board determines that no NOLs may be carried forward.

The issuance of the Rights is not a taxable event and will not affect the Company's reported financial condition or results of operations, including earnings per share. Additional information regarding the Rights Plan is contained in the Company's current report on Form 8-K, filed on November 25, 2015.

## 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

<b>Exhibit No.</b>	<b>Description</b>
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)

3.1.1	Certificate of Designation, as filed with the State of Delaware on November 25, 2015. (40)
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)
10.30.10	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)++
10.30.13	Employment Agreement, dated November 5, 2015, by and between John M. Gill and the Company. (41)+++*
10.30.14	Separation Agreement and General Release and Waiver, dated March 9, 2015, by and between Francesca Cook and the Company. (41)++
10.30.15	Separation Agreement and General Release and Waiver, dated March 16, 2015, by and between Eric Richman and the Company. (41)++
10.30.16	Separation Agreement and General Release and Waiver, dated March 31, 2015, by and between Wayne Morges, Ph.D. and the Company. (41)++
10.30.17	Separation Agreement and General Release and Waiver, dated April 30, 2015, by and between Linda Chang and the Company. (41)++

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, 2015, formatted in Extensive Business Reporting Language (“XBRL”): (i) Consolidated Balance Sheets as of December 31, 2015 and December 31, 2014, (ii) Consolidated Statements of Operations for the years ended December 31, 2015, 2014 and 2013, (iii) Consolidated Statements of Comprehensive Loss, (iv) Consolidated Statements of Stockholders’ Equity for the years ended December 31, 2015, 2014 and 2013, (v) Consolidated Statements of Cash Flows for the years ended December 31, 2015, 2014 and 2013, 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.
- (40) Incorporated by reference to Exhibit 3.1 to the Registrant's current report on Form 8-K filed on November 25, 2015.
- (41) Incorporated by reference to the Registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2015.
- \* 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, 2016.

### PHARMATHENE, INC.

By: /s/ John M. Gill  
John M. Gill  
*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/ John M. Gill</u> John M. Gill	Chief Executive Officer and Director (Principal Executive Officer)	March 11, 2016
<u>/s/ Philip MacNeill</u> Philip MacNeill	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 11, 2016
<u>/s/ Mitchel Sayare</u> Mitchel Sayare, Ph.D.	Chairman of the Board	March 11, 2016
<u>/s/ Eric I. Richman</u> Eric I. Richman	Director	March 11, 2016
<u>/s/ Derace Schaffer</u> Derace Schaffer, M.D.	Director	March 11, 2016
<u>/s/ Jeffrey W. Runge</u> Jeffrey W. Runge, M.D.	Director	March 11, 2016
<u>/s/ Steven St. Peter</u> Steven St. Peter, M.D.	Director	March 11, 2016



PHARMATHENE, INC.

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REPORT OF ERNST & YOUNG LLP, 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, 2015, 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, 2015, 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, 2015 and 2014, 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, 2015 and our report dated March 11, 2016 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Baltimore, Maryland  
March 11, 2016

REPORT OF ERNST & YOUNG LLP, 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, 2015 and 2014, 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, 2015. 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, 2015 and 2014, and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2015, 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, 2015, 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, 2016 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Baltimore, Maryland  
March 11, 2016

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

	<b>December 31,</b>	
	<b>2015</b>	<b>2014</b>
<b><u>ASSETS</u></b>		
Current assets:		
Cash and cash equivalents	\$ 15,569,813	\$ 18,643,351
Billed accounts receivable	511,994	110,656
Unbilled accounts receivable	963,345	297,431
Prepaid expenses and other current assets	181,714	199,194
Total current assets	17,226,866	19,250,632
Property and equipment, net	233,694	325,772
Other long-term assets and deferred costs	53,384	53,384
Goodwill	2,348,453	2,348,453
Total assets	\$ 19,862,397	\$ 21,978,241
<b><u>LIABILITIES AND STOCKHOLDERS' EQUITY</u></b>		
Current liabilities:		
Accounts payable	\$ 521,122	\$ 391,396
Accrued expenses and other liabilities	1,248,708	1,195,412
Accrued restructuring expenses	381,950	-
Current portion of long-term debt	-	746,146
Other short-term liabilities	11,250	70,326
Current portion of derivative instruments	16,411	178,509
Total current liabilities	2,179,441	2,581,789
Accrued restructuring expenses - long term	108,641	-
Other long-term liabilities	433,407	493,137
Derivative instruments, less current portion	491,791	629,170
Total liabilities	3,213,280	3,704,096
Stockholders' equity:		
Common stock, \$0.0001 par value; 100,000,000 shares authorized; 64,382,086 and 63,603,303 shares issued and outstanding at December 31, 2015 and 2014, respectively	6,438	6,360
Additional paid-in-capital	240,366,704	238,780,633
Accumulated other comprehensive loss	-	(229,528)
Accumulated deficit	(223,724,025)	(220,283,320)
Total stockholders' equity	16,649,117	18,274,145
Total liabilities and stockholders' equity	\$ 19,862,397	\$ 21,978,241

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

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

	Year Ended December 31,		
	2015	2014	2013
Contract revenue	\$ 10,640,660	\$ 10,190,205	\$ 17,912,607
Operating expenses:			
Research and development	5,133,512	9,319,828	15,290,142
General and administrative	6,222,185	10,911,724	13,279,186
Restructuring expense	2,546,159	-	-
Depreciation	141,604	149,958	182,487
Total operating expenses	<u>14,043,460</u>	<u>20,381,510</u>	<u>28,751,815</u>
Loss from operations	\$ (3,402,800)	\$ (10,191,305)	\$ (10,839,208)
Other income (expense):			
Interest expense, net	(54,581)	(210,399)	(366,706)
Realization of cumulative translation adjustment	(229,192)	-	-
Change in fair value of derivative instruments	299,477	508,817	(444,622)
Other income (expense)	8,137	(762)	(6,071)
Total other income (expense)	<u>23,841</u>	<u>297,656</u>	<u>(817,399)</u>
Loss before income taxes	(3,378,959)	(9,893,649)	(11,656,607)
Income tax provision	(61,746)	(61,746)	(61,746)
Net loss	<u>\$ (3,440,705)</u>	<u>\$ (9,955,395)</u>	<u>\$ (11,718,353)</u>
Basic and diluted net loss per share	\$ (0.05)	\$ (0.17)	\$ (0.23)
Weighted average shares used in calculation of basic and diluted net loss per share	63,986,013	57,535,325	50,659,116

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>2015</b>	<b>2014</b>	<b>2013</b>
Net loss	\$ (3,440,705)	\$ (9,955,395)	\$ (11,718,353)
Other comprehensive loss:			
Foreign currency translation adjustment	336	(10,818)	(1,382)
Realization of cumulative translation adjustment included in net loss	229,192	-	-
Comprehensive loss	<u>\$ (3,211,177)</u>	<u>\$ (9,966,213)</u>	<u>\$ (11,719,735)</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	Accumulated Deficit	Stockholders' Equity
	Shares	Amount		Income (Loss)		
<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>	63,603,303	6,360	238,780,633	(229,528)	(220,283,320)	18,274,145
Net loss	-	-	-	-	(3,440,705)	(3,440,705)
Foreign currency translation adjustments	-	-	-	336	-	336
Realization of cumulative translation adjustment	-	-	-	229,192	-	229,192
Share-based compensation - stock options	-	-	613,017	-	-	613,017
Shares issued upon exercise of stock options	778,783	78	973,054	-	-	973,132
<b>Balance as of 12/31/2015</b>	64,382,086	\$ 6,438	\$ 240,366,704	\$ -	\$ (223,724,025)	\$ 16,649,117

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

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

	Year Ended December 31,		
	2015	2014	2013
<b>Operating activities</b>			
Net loss	\$ (3,440,705)	\$ (9,955,395)	\$ (11,718,353)
Adjustments to reconcile net loss to net cash used in operating activities:			
Realization of cumulative translation adjustment	229,192	-	-
Share-based compensation expense	613,017	1,655,647	1,362,716
Change in fair value of derivative instruments	(299,477)	(508,817)	444,622
Depreciation expense	141,604	149,958	182,487
Deferred income taxes	61,746	61,746	61,746
Non-cash interest expense	(45,358)	83,021	135,162
Restructuring expense related to property and equipment	36,981	-	-
Gain on the disposal of property and equipment	(7,600)	(5,394)	(3,500)
Changes in operating assets and liabilities:			
Accounts receivable	(401,338)	1,316,457	1,005,528
Unbilled accounts receivable	(665,914)	1,902,094	1,914,917
Prepaid expenses and other current assets	5,202	(5,367)	282,057
Accounts payable	129,726	(736,776)	(569,120)
Accrued restructuring expenses	481,761	-	-
Accrued expenses and other liabilities	(54,818)	(2,089,493)	773,566
Deferred revenue	-	(341,723)	(1,040,032)
Net cash used in operating activities	(3,215,981)	(8,474,042)	(7,168,204)
<b>Investing activities</b>			
Purchases of property and equipment	(86,507)	(92,269)	(84,579)
Proceeds from the sale of property and equipment	7,600	8,000	3,500
Net cash used in investing activities	(78,907)	(84,269)	(81,079)
<b>Financing activities</b>			
Repayment of debt	(750,007)	(999,996)	(749,997)
Net repayment of revolving credit agreement	-	(1,091,740)	(238,767)
Net proceeds from exercise of warrants	-	683,325	-
Proceeds from issuance of common stock, including exercise of stock options, net of offering costs	973,132	18,141,935	6,018,891
Net cash provided by financing activities	223,125	16,733,524	5,030,127
Effects of exchange rates on cash and cash equivalents	(1,775)	(12,841)	(1,382)
Increase (decrease) in cash and cash equivalents	(3,073,538)	8,162,372	(2,220,538)
Cash and cash equivalents, at beginning of year	18,643,351	10,480,979	12,701,517
Cash and cash equivalents, at end of year	<u>\$ 15,569,813</u>	<u>\$ 18,643,351</u>	<u>\$ 10,480,979</u>
<b>Supplemental disclosure of cash flow information</b>			
Cash paid for interest	\$ 108,391	\$ 128,073	\$ 234,119

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, 2015

**Note 1 - Organization and Business**

We have been engaged in the biodefense business through our predecessor entity since our inception in 2001.

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.

On September 9, 2014, we signed a contract with the National Institutes of Allergy and Infectious Diseases (“NIAID”) for the development of a next generation lyophilized anthrax vaccine based on the Company’s proprietary technology platform which contributes the recombinant protective antigen (“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. NIAID exercised the first and second options under this agreement in September 2015 and December 2015, respectively. The exercised options provide additional funding of approximately \$4.9 million and an extension of the period of performance through April 30, 2017. 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. If NIAID exercises all options, the contract would last approximately five years. If NIAID does not exercise any additional options, the contract would expire by its terms on April 30, 2017.

On March 9, 2015, our Board of Directors approved our realignment plan (the “Realignment Plan”) with the goal of preserving and maximizing, for the benefit of our stockholders, the value of any proceeds from our litigation with SIGA Technologies, Inc. (“SIGA”) and our existing biodefense assets. The plan eliminated approximately two-thirds of our workforce and aimed to preserve sufficient cash and cash equivalents to finance our continued operations through a period of time that is expected to extend beyond our collection of the amount awarded to us by the Delaware Chancery Court’s affirmed judgment. 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. Total severance payments to executives and non-executives in connection with the Realignment Plan amount to approximately \$2 million (all of which was expensed during the year ended December 31, 2015). Approximately \$1.9 million of such severance expenses were paid in 2015. Historically, the Company has performed under government contracts and grants and raised funds from investors (including additional debt and equity issued in 2015 and 2014) 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 an accumulated deficit of \$223.7 million. 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.

On July 6, 2015, we signed a license agreement with ImmunoVaccine Technologies (“IMV”) for the exclusive use of the DepoVax<sup>™</sup> vaccine platform (“DPX”), to develop an anthrax vaccine utilizing PharmAthene’s rPA. IMV is a clinical-stage vaccine development company located in Halifax, Nova Scotia, Canada. PharmAthene will reimburse up to \$210,000 to IMV for their efforts in developing this vaccine and, in addition, PharmAthene will pay to IMV annual payments of \$200,000, additional payments for the achievement of certain milestones relating to contracting with the U.S. Government as well as achieving certain clinical/regulatory and commercial milestones, and achievement of sales targets, and royalties on sales related to the use of DepoVax<sup>™</sup>.

On September 2, 2015, the Company entered into a sublease agreement with a third party with respect to a portion of its leased office space in Annapolis, Maryland. See Note 7 – *Commitments and Contingencies – Leases*.

As of December 31, 2015, our cash balance was \$15.6 million, our accounts receivable (billed and unbilled) balance was \$1.5 million, and our current liabilities were \$2.2 million. As of December 31, 2015, we had approximately \$3.0 million of remaining availability under our controlled equity offering arrangement, although we did not sell any shares of common stock under such facility during the year ended December 31, 2015 (see Note 8 – *Stockholders’ Equity – Controlled Equity Offering*). We believe, based on the operating cash requirements and capital expenditures expected for 2016, the Company’s cash on hand at December 31, 2015 is adequate to fund operations for at least the next twelve months. On September 3, 2015, we satisfied in full our remaining obligations under our March 2012 Loan Agreement with General Electric Capital Corporation (“GE Capital”), as discussed further in Note 6-*Financing Transactions*.

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, in connection with the Realignment Plan, executive officers who have served the Company for many years have been 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 we have received SIGA's payment, if any. 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 enforce payment of or collect any 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 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.

## **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, PharmAthene UK Limited, 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. Transaction gains or (losses) are included in the determination of net income or loss.

In June 2015, we substantially liquidated PharmAthene UK Limited, which we had acquired in 2008. Prior to substantially liquidating the UK subsidiary, currency fluctuations were recorded as foreign currency translation adjustments, a component of other comprehensive income. As a result of the substantial liquidation, we realized an approximate loss of \$0.2 million in our consolidated statements of operations, which represents the amount of previously recorded foreign currency translation adjustments related to our UK subsidiary.

### ***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 years ended December 31, 2014 and 2013.

### **Cash and Cash Equivalents**

Cash and cash equivalents are stated at market value which approximates market value and include investments in money market funds with financial institutions which are stated at market value. The company maintains cash balances with financial institutions in excess of insured limits.

### **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. Government, there is minimal credit risk.

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

For the year ended December 31, 2015, our primary customers were NIAID and the Biomedical Advanced Research and Development Authority (“BARDA”). For the year ended December 31, 2014, our primary customers were NIAID, BARDA and Chemical Biological Medical Systems (“CBMS”). As of December 31, 2015, the Company’s billed and unbilled receivable balances were comprised solely of receivables from NIAID. As of December 31, 2014, the Company’s billed and unbilled receivable balances were comprised solely of receivables from NIAID and BARDA. The receivable balances 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.

### **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, 2015 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.

## Restructuring Expense

Restructuring expense for the year-ended December 31, 2015 is as follows:

Description	Expensed 2015	Paid 2015	Amortized 2015	Balance to Be Paid or Amortized In Future Periods
Severance expense	\$ 2,031,939	\$ 1,900,117	\$ -	\$ 131,822
Legal expense	120,911	120,911	-	-
Other employee-related expense	13,200	13,200	-	-
Share-based compensation expense	(53,741)	-	(53,741)	-
Sublease expense	437,212	-	78,443	358,769
Impairment of property and equipment	36,981	-	36,981	-
Other sublease related benefit	(40,343)	16,602	(56,945)	-
Total restructuring expense	<u>\$ 2,546,159</u>	<u>\$ 2,050,830</u>	<u>\$ 4,738</u>	<u>\$ 490,591</u>

## Fair Value of 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. Some 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; 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. See Note 3 – *Fair Value Measurements* for further details.

## 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 December 31, 2015 or 2014; however, for the year ended December 31, 2013, we recorded approximately \$0.02 million 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, non-employee directors and consultants under our stock compensation plans.

The fair value of stock options granted to employees and non-employee directors 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 stock options 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 granted to employees and non-employee directors 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.

The fair value of restricted stock grants granted to consultants is determined based on the closing price of our common stock on the award date, is remeasured at each quarterly reporting date and is recognized as expense ratably over the requisite service period.

Share-based compensation expense in 2015, 2014 and 2013 is calculated based on awards ultimately expected to vest and is reduced for estimated forfeitures.

Share-based compensation expense for 2015, 2014 and 2013 is as follows:

	<b>Year Ended December 31,</b>		
	<b>2015</b>	<b>2014</b>	<b>2013</b>
Research and development	\$ 122,412	\$ 452,870	\$ 333,735
General and administrative	544,346	1,202,777	1,028,981
Restructuring benefit	(53,741)	-	-
Total share-based compensation expense	<u>\$ 613,017</u>	<u>\$ 1,655,647</u>	<u>\$ 1,362,716</u>

As a result of the restructuring and termination of employees, during the year ended December 31, 2015, we recognized approximately \$75,000 of share-based compensation expense resulting from our agreement to extend the exercise period of the vested stock options for several of the executives who were terminated. In addition, approximately \$129,000 of previously recognized share-based compensation expense was reversed for unvested stock options forfeited as a result of the restructuring and termination of employees. The \$53,741 net reversal of share-based compensation expense is reflected in restructuring benefit in the above table.

During the years ended December 31, 2015, 2014 and 2013, we received proceeds of \$1.0 million, \$0.5 million and \$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, 2015 and 2014, 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, 2015, 2014 and 2013, 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 6.5 million, 11.9 million and 11.6 million potential dilutive securities have been excluded in the calculation of diluted net loss per share in 2015, 2014 and 2013, respectively, because their inclusion would be anti-dilutive.

### **Recent Accounting Pronouncements**

In May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2014-09, Revenue from Contracts with Customers (Topic 606) (“ASU No. 2014-09”). ASU No. 2014-09 clarifies the principles for recognizing 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. This guidance affects entities that enter into contracts with customers to transfer goods or services, and supersedes prior GAAP guidance, namely Accounting Standards Codification Topic 605 – Revenue Recognition. On July 9, 2015, the FASB voted and approved to defer the effective date of ASU No. 2014-09 by one year. As a result, ASU No. 2014-09 will be effective for fiscal years beginning after December 15, 2017, with early adoption permitted but not prior to the original effective date of annual periods beginning after December 15, 2016. ASU No. 2014-09 is to be applied retrospectively, or on a modified retrospective basis. We have not determined the impact of adopting ASU No. 2014-09 on our consolidated financial statements and plan to complete our evaluation by late 2017.

In November 2015, the FASB issued ASU No. 2015-17, Income Taxes, or ASU No. 2015-17. To simplify the presentation of deferred income taxes, the amendments in this update require that deferred tax liabilities and assets be classified as noncurrent in a classified statement of financial position. The amendments in this Update apply to all entities that present a classified statement of financial position. The current requirement that deferred tax liabilities and assets of a tax-paying component of an entity be offset and presented as a single amount is not affected by the amendments in this Update. The amendments in this Update are effective for financial statements issued for annual periods beginning after December 15, 2016, and interim periods within those annual periods. Earlier application is permitted. The amendments in this Update may be applied either prospectively to all deferred tax liabilities and assets or retrospectively to all periods presented. We are currently evaluating the impact of adopting ASU No. 2015-17 on our consolidated financial statements.

### **Note 3 - Fair Value Measurements**

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. 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.

**Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis**

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, 2015			Balance
	Level 1	Level 2	Level 3	
<b>Assets</b>				
Investment in money market funds <sup>(1)</sup>	\$ 6,430,561	\$ -	\$ -	\$ 6,430,561
Total investment in money market funds	<u>\$ 6,430,561</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 6,430,561</u>
<b>Liabilities</b>				
Current portion of derivative instruments related to stock purchase warrants	\$ -	\$ -	\$ 16,411	\$ 16,411
Non-current portion of derivative instruments related to stock purchase warrants	-	-	491,791	491,791
Total derivative instruments related to stock purchase warrants	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 508,202</u>	<u>\$ 508,202</u>
	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>

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



The following table sets forth a summary of changes in the fair value of the Company's Level 3 liabilities for the years ended December 31, 2015, 2014 and 2013:

Description	Balance as of December 31, 2014	Unrealized (Gains) 2015	Exercised Stock Purchase Warrants 2015	Balance as of December 31, 2015
Derivative liabilities related to stock purchase warrants	\$ 807,679	\$ (299,477)	\$ -	\$ 508,202

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

At December 31, 2015, derivative liabilities are comprised of warrants to purchase 1,275,419 shares of common stock. At December 31, 2014 and 2013, derivative liabilities are comprised of 1,775,419 and 2,899,991 warrants to purchase common stock, respectively. 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, 2015	Valuation Technique	Unobservable Inputs
\$ 508,202	Black-Scholes option pricing model	Expected term Expected dividends Anticipated volatility

#### *Assets and Liabilities Measured at Fair Value on a Non-Recurring Basis*

The Company measures its long-lived assets, including property, plant and equipment, intangible assets and goodwill, at fair value on a non-recurring basis. These assets are recognized at fair value when they are deemed to be other-than-temporarily impaired. During the year ended December 31, 2015, the Company recorded an impairment charge for property and equipment in the amount of \$36,981, and included as part of restructuring expense. These assets were written down to their fair value of \$0 in conjunction with the sublease of the Company's leased office space (see Note 7 – *Commitments and Contingencies – Leases*). As of December 31, 2015, the Company had no other assets or liabilities that were measured at fair value on a nonrecurring basis. No such fair value impairment was recognized in the years ended December 31, 2014 and 2013.

#### Note 4 - Property and Equipment

Property and equipment consisted of the following:

	December 31,	
	2015	2014
Leasehold improvements	\$ 593,739	\$ 758,126
Furniture and office equipment	234,018	234,018
Computer and other equipment	1,263,193	1,522,331
	<u>2,090,950</u>	<u>2,514,475</u>
Less accumulated depreciation	(1,857,256)	(2,188,703)
Property and equipment, net	<u>\$ 233,694</u>	<u>\$ 325,772</u>

Included in Computer and other equipment is approximately \$0.05 million of unamortized computer software costs. Depreciation expense was \$0.1 million for each of the years ended December 31, 2015 and 2014, and was \$0.2 million for the year ended December 31, 2013.

#### Note 5 - Accrued Expenses and Other Liabilities

Accrued expenses and other liabilities consisted of the following:

	December 31,	
	2015	2014
Accrued research and development expenses	\$ 451,805	\$ 540,722
Accrued professional fees	600,390	509,953
Accrued employee and payroll related expenses	102,632	37,313
Other	93,881	107,424
Accrued expenses and other liabilities	<u>\$ 1,248,708</u>	<u>\$ 1,195,412</u>

#### Note 6 - Debt

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

On March 30, 2012, the Company entered into a Loan Agreement with GE Capital. The Loan Agreement provided 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 September 3, 2015, we satisfied in full our remaining obligations under the GE Capital Loan Agreement. The Loan Agreement was scheduled to terminate on September 29, 2015. The termination of the Loan Agreement released PharmAthene from further obligations under the Loan Agreement, which were collateralized by a security interest in substantially all of our assets.

The final payment fee was accrued and expensed over the term of the Loan Agreement, using the effective interest method. Financing costs incurred in connection with this agreement were also amortized over the term of the agreement using the effective interest method.

In connection with the Loan Agreement, in 2012 we issued to GE Capital a warrant to purchase 46,584 shares of the Company's common stock at an exercise price of \$1.61 per share. The warrant, which expires in March 2022, was not affected by the termination. The warrant was exercisable immediately and subject to customary and standard anti-dilution adjustments. The warrant is classified in equity and, as a result, the fair value of the warrant was charged to additional paid-in-capital resulting in a debt discount at the date of issuance. The debt discount was amortized over the term of the Loan 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. Remaining annual minimum payments are as follows:

<u>Year</u>	<u>Lease Payments<sup>(1)</sup></u>
2016	\$ 848,273
2017	356,911
	<u>\$ 1,205,184</u>

(1) Minimum payments have not been reduced by the minimum sublease rentals of \$0.2 million due in the future under noncancellable subleases.

For the year ended December 31, 2015, total rent expense under the operating lease agreement approximated \$0.7 million. For each of the years ended December 31, 2014 and 2013, total rent expense under operating lease agreements approximated \$0.8 million. Total rent expense is allocated to research and development and general and administrative expenses on the consolidated statements of operations.

On September 2, 2015, the Company entered into a sublease agreement with a third party with respect to a portion of its leased office space at an amount less than the Company's leased amount. As a result, we realized a loss of \$0.4 million in restructuring expense on our consolidated statements of operations for the year ended December 31, 2015.

The present value of the Company's remaining net lease liability for the subleased office space (net of the sublease rental income), is included on the balance sheet as a component of accrued restructuring expenses as follows:

<u>Description</u>	<u>Present Value at December 31, 2015</u>
Accrued restructuring expenses	\$ 250,128
Accrued restructuring expenses - long term	\$ 108,641

### 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 were incurred during each of the years ended December 31, 2015 and 2014. Maintenance fees of \$0.04 million were incurred during the year ended December 31, 2013.

On July 6, 2015, we signed a license agreement with ImmunoVaccine Technologies ("IMV") for the exclusive use of the DepoVax<sup>TM</sup> vaccine platform ("DPX"), to develop an anthrax vaccine utilizing PharmAthene's rPA. PharmAthene will reimburse up to \$210,000 to IMV for their efforts in developing this vaccine and, in addition, PharmAthene will pay to IMV annual payments of \$200,000, additional payments for the achievement of certain milestones relating to contracting with the U.S. Government as well as achieving certain clinical/regulatory and commercial milestones, and achievement of sales targets, and royalties on sales related to the use of DepoVax<sup>TM</sup>. During the year ended December 31, 2015, license fees of \$300,000 were incurred, including a \$200,000 upfront payment.

## **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 right to license exclusively the development and marketing rights for SIGA's drug candidate, Tecovirimat, also known as ST-246<sup>®</sup>, 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 2014, SIGA 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 (the "Bankruptcy Court"). SIGA's petition for bankruptcy initiated a process whereby its assets are protected from creditors, including PharmAthene.

In January 2015, after years of litigation, 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, 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.

On December 15, 2015, SIGA filed a reorganization plan, amended on February 9, 2016 (the "Plan") with the Bankruptcy Court that provides for among other things, the process by which SIGA may emerge from bankruptcy, which includes the process by which PharmAthene's Judgment will be satisfied. The Plan remains subject to the approval of the Bankruptcy Court and therefore remains subject to change, withdrawal or rejection by either SIGA or the Bankruptcy Court. The Plan provides generally that PharmAthene will receive, in full settlement and satisfaction of its claim, no later than 120 days plus another potential 90 days after the Delaware Supreme Court affirms a final order, one of the following, determined in SIGA's sole discretion:

- (i) payment in full in cash of the unpaid balance of the PharmAthene claim plus interest;
- (ii) delivery to PharmAthene of 100% of SIGA's common stock; or
- (iii) such other treatment as may be mutually agreed upon in writing by SIGA and PharmAthene and approved by the Bankruptcy Court.

The description of the Plan provided above is a brief summary of the Plan, which includes numerous other conditions and substantive provisions relating to the operation of the business of SIGA. Copies of the Plan are available from the Bankruptcy Court. For a description of risks related to our ability to recognize value relating to this litigation, see the "Risk Factors" section of this annual report below.

On December 23, 2015, the Delaware Supreme Court affirmed the Delaware Court of Chancery's decision as a result of which, with additional post-judgment interest, if calculated based on the original decision would provide for an estimated total award of approximately \$205 million. However, PharmAthene's entitlement to interest from and after SIGA's bankruptcy filing may be negatively impacted by the proceedings before the Bankruptcy Court.

There can be no assurances if and when the Company will receive any payments from SIGA as a result of the Judgment. SIGA has indicated in filings with the Bankruptcy Court 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. 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. 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. As a result of the audit, we were able to record revenue and receive payment of \$5.8 million in the first quarter of 2015.

BARDA has audited our 2014 costs related to the partial termination for convenience of the SparVax<sup>®</sup> contract and forwarded the results to the pertinent U.S. Government Contracting Officer. 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. The Company has billed and recognized revenue using the provisional rates as defined in the contract. While the actual rates for 2014, which reflect the actual costs incurred by us, have been higher than the provisional rates, 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.

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, 2015, 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**

### ***Stockholder Rights Plan***

On November 25, 2015, the Company's Board of Directors adopted a stockholder rights plan ("Rights Plan") in an effort to preserve the value of its net operating loss carryforwards ("NOLs") under Section 382 of the Internal Revenue Code (the "Code"). The description and terms of the rights are set forth in a Section 382 Rights Agreement, dated as of November 25, 2015 (the "Section 382 Rights Agreement"), by and between the Company and Continental Stock Transfer & Trust Company, as Rights Agent.

In connection with the adoption of the Rights Plan, on November 25, 2015 (the “Rights Dividend Declaration Date”), the Board declared a non-taxable dividend distribution of one share purchase right (“Right”) for each outstanding share of common stock to the Company’s stockholders of record as of the close of business on December 9, 2015. The Section 382 Rights Plan is intended to act as a deterrent to any person (an “Acquiring Person”) acquiring (together with all affiliates and associates of such person) beneficial ownership of 4.99% or more of the Company’s outstanding common stock within the meaning of Section 382 of the Code, without the approval of the Board of Directors. Stockholders who beneficially owned 4.99% or more of the Company’s outstanding common stock as of the Rights Dividend Declaration Date are not be deemed to be an Acquiring Person, but such person will be deemed an Acquiring Person if such person (together with all affiliates and associates of such person) becomes the beneficial owner of securities representing a percentage of the Company’s common stock that exceeds by 0.5% or more the lowest percentage of beneficial ownership of the Company’s common stock that such person had at any time since the Rights Dividend Declaration Date. In its discretion, the Board may exempt certain persons whose acquisition of securities is determined by the Board not to jeopardize the availability to the Company’s NOLs or other tax benefits and may also exempt certain transactions.

### ***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, 2015, 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, 2015, we did not sell any shares of our common stock under this arrangement. 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, 2015, there are approximately 10.3 million shares approved for issuance under the 2007 Plan, of which approximately 3.4 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, 2013	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
Granted	369,814	1.66	
Exercised	(778,783)	1.25	
Forfeited	(2,712,613)	2.43	
Expired	(77,308)	3.26	
Outstanding, December 31, 2015	4,191,004	\$ 2.36	6.0
Exercisable, December 31, 2015	3,284,406	\$ 2.54	5.3
Vested and expected to vest, December 31, 2015	4,082,212	\$ 2.40	5.9

The aggregate intrinsic value is calculated as the difference between (i) the closing price of the common stock at December 31, 2015 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 \$0.7 million and \$1.3 million as of December 31, 2015 and 2014, respectively.

At December 31, 2015, total compensation costs for unvested stock option awards outstanding approximated \$0.8 million, net of estimated forfeitures, which we expect to recognize as stock compensation expense over a weighted average period of 2.3 years.

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

The weighted-average grant date fair value for options granted in 2015, 2014 and 2013 was \$1.13, \$1.30 and \$1.23, respectively. The aggregate intrinsic value of options exercised during the years ended December 31, 2015, 2014 and 2013 was approximately \$0.3 million, \$0.2 million and less than \$0.1 million respectively. The total fair value of awards vested during 2015, 2014 and 2013 was approximately \$0.8 million, \$1.4 million and \$1.4 million, respectively.

The fair value for the 2015, 2014 and 2013 awards were estimated at the date of grant using the Black-Scholes option-pricing model using the following assumptions:

	December 31,		
	2015	2014	2013
Weighted-average volatility	70%	84%	86%
Risk-free rate	1.50% - 2.25%	1.51% - 2.25%	0.96% - 1.90%
Expected annual dividend yield	-	-	-
Expected weighted-average life, in years	5.7	6.1	5.6

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:

	Shares	Weighted-Average Grant Date Fair Value	Aggregate Intrinsic Value
<b>Restricted shares</b>			
Outstanding, January 1, 2013	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	-	\$ -	\$ -
Granted	877,244	1.77	-
Vested	-	-	-
Forfeited or expired	(25,000)	1.71	-
Outstanding, December 31, 2015	852,244	\$ 1.78	\$ 1,619,264



During the year ended December 31, 2015, we granted 877,244 shares of restricted stock to employees and consultants, of which 612,244 are performance-based. The shares vest upon the earliest to occur of (i) certain performance conditions or (ii) service conditions. The service conditions either vest in full two years from the grant date or 50% vest annually starting one year from the grant date. No compensation expense was recognized related to performance-based shares in 2015 as the attainment of the performance conditions is not deemed probable.

At December 31, 2015, we had total unrecognized share-based compensation expense related to unvested service-based restricted stock awards of approximately \$0.3 million net of estimated forfeitures, which we expect to recognize as expense over a weighted-average period of 1.7 years.

#### Warrants

At December 31, 2015 there were warrants outstanding to purchase 1,422,781 shares of our common stock. At December 31, 2014 and 2013, there were warrants outstanding to purchase 4,495,556 and 5,620,128 shares of our common stock, respectively. The warrants outstanding as of December 31, 2015 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
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
<u>1,422,781</u>			

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

(2) Because of the presence of net settlement provisions, these warrants to purchase common stock are classified as derivative liabilities. The fair value of these liabilities (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 accompanying consolidated statements of operations as other income (expense).

Warrants to purchase 3,072,775 shares of common stock expired during the year ended December 31, 2015 without being exercised, of which 2,572,775 warrants were classified as equity and 500,000 were classified as derivative liabilities.

#### 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,		
	2015	2014	2013
Statutory federal tax benefit	\$ (1,148,846)	\$ (3,363,841)	\$ (3,963,246)
State income tax, net of federal benefit	(124,626)	(450,656)	(1,179,476)
Other permanent differences	6,909	(6,274)	(2,706,156)
Foreign rate differential	68,482	7,913	(710,512)
Rate change	1,218	794,807	(369,407)
Lobbying costs	1,047	57,517	98,507
Expired/forfeited options	1,049,765	380,689	-
Cancellation of debt limitation write off	-	-	6,246,942
Other	2,949	(308)	(1,816)
Subtotal	(143,102)	(2,580,153)	(2,585,164)
Decrease (increase) in valuation allowance	204,848	2,641,899	2,646,910
Income tax provision (benefit)	<u>\$ 61,746</u>	<u>\$ 61,746</u>	<u>\$ 61,746</u>

	<b>Year Ended December 31,</b>		
	<b>2015</b>	<b>2014</b>	<b>2013</b>
<b>Deferred tax assets:</b>			
Net operating loss ("NOLs") carryforwards	\$ 65,635,003	\$ 64,361,842	\$ 61,590,084
Fixed assets/intangibles	139,853	166,205	148,395
Research and development credits/loss carryforwards	8,900	3,834	1,726
Share-based compensation	2,352,660	3,458,334	3,368,571
Accrued expenses and other	91,210	366,797	859,358
<b>Total deferred tax assets</b>	<b>68,227,626</b>	<b>68,357,012</b>	<b>65,968,134</b>
<b>Deferred tax liabilities:</b>			
Intercompany bad debt	-	-	-
<b>Total deferred tax liabilities</b>	<b>-</b>	<b>-</b>	<b>-</b>
Net deferred tax assets	68,227,626	68,357,012	65,968,134
Less: Valuation allowance	(68,608,401)	(68,676,033)	(66,225,409)
<b>Net deferred tax liabilities</b>	<b>\$ (380,775)</b>	<b>\$ (319,021)</b>	<b>\$ (257,275)</b>

For the years ended December 31, 2015 and 2014, 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 \$156.3 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 \$19.6 million have an unlimited life.

In assessing our ability to realize 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 2015, consistent with 2014. 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 \$0.4 million at December 31, 2015 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, 2015 and 2014 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 2015</b>				
Revenue	\$ 7,068,746	\$ 1,149,570	\$ 1,155,839	\$ 1,266,505
Income (loss) from operations	1,161,084	(1,964,867)	(1,658,548)	(940,469)
Net income (loss)	1,463,395	(2,340,932)	(1,324,768)	(1,238,400)
Net income (loss) per share, basic	0.02	(0.04)	(0.02)	(0.02)
Net income (loss) per share, diluted	0.02	(0.04)	(0.02)	(0.02)
<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)

## EMPLOYMENT AGREEMENT

This EMPLOYMENT AGREEMENT (this "**Agreement**") is made and entered into this 5th day of November, 2015 by and between **John M. Gill** (the "**Executive**") and **PharmAthene, Inc.**, a Delaware corporation (the "**Company**").

## WITNESSETH:

**WHEREAS**, the Company desires to continue to employ the Executive and the Executive desires to accept continued employment with the Company subject to the terms and conditions herein agreed upon;

**NOW, THEREFORE**, in consideration of the foregoing and of the mutual covenants and obligations hereinafter set forth, the parties hereto hereby agree as follows:

1. **Employment; Term.** The Company hereby agrees to continue to employ the Executive and the Executive hereby accepts continued employment with the Company upon the terms and conditions hereinafter set forth for the period commencing on September 17, 2015 (the "**Effective Date**") and ending on the first anniversary of such date (the "**Initial End Date**"). The term of this Agreement shall be automatically extended for an additional year on each anniversary of the Initial End Date unless written notice of non-extension is provided by either party to the other party at least 90 days prior to such anniversary. The period of the Executive's employment under this Agreement, as it may be terminated or extended from time to time as provided herein is referred to as the "**Employment Period**."
2. **Position and Duties.**
  - a. **Position and Duties Generally.** The Executive shall continue to be employed by the Company in the position of President and Chief Executive Officer and shall faithfully render such executive, managerial, administrative and other services as are customarily associated with and incident to such position and as the Board of Directors of the Company (the "**Board**") may from time to time reasonably require consistent with such position. The Executive shall report to the Board.
  - b. **Other Positions.** The Executive shall hold such other positions and executive offices with the Company and/or of any of the Company's subsidiaries or affiliates consistent with the Executive's position as President and Chief Executive Officer as may from time to time be authorized by the Board. The Executive shall not be entitled to any compensation other than the compensation provided for herein for serving during the Employment Period in any other office or position of the Company or any of its subsidiaries or affiliates, unless the Compensation Committee specifically approves such additional compensation.

- c. **Devotion to Employment.** During the Employment Period, the Executive shall devote an average of three (3) days each week (“**Work Days**”) to the business of the Company and the duties required of him as President and Chief Executive Officer. The Executive shall be on-site in the Company’s offices in Annapolis, Maryland during a portion of his Work Days determined by the Executive to be necessary and appropriate. During the Employment Period, the Executive shall not be engaged in any other business activity which, in the reasonable judgment of the Board or its designee, conflicts with the duties of the Executive hereunder, whether or not such activity is pursued for gain, profit or other pecuniary advantage.

**3. Compensation; Reimbursement.**

- a. **Base Salary.** For the Executive’s services, the Company shall pay to the Executive a base salary at a rate of not less than (i) \$200,000.00 per year for the period from the Effective Date of this Agreement through December 31, 2015; and (ii) \$300,000 per year for each year thereafter, payable in equal periodic installments according to the Company’s customary payroll practices, but no less frequently than monthly (the “**Base Salary**”). The Executive’s Base Salary shall be subject to review annually by the Compensation Committee and shall be subject to increase at the option and in the sole and absolute discretion of the Compensation Committee.
- b. **Special Bonus.** The Executive shall receive a bonus in the amount of \$50,000 for services rendered in 2015, paid in a one-time lump sum payment by no later than the first pay day following December 31, 2015.
- c. **Annual Target Bonus.** The Executive shall be eligible to receive, at the sole and absolute discretion of the Compensation Committee, an annual target bonus payable in cash of up to an additional fifty percent (50%) of the Executive’s Base Salary based upon the achievement of certain pre-determined performance milestones established by the Compensation Committee after input from the Executive and approved by the Board, with such annual target bonus payable to the Executive no later than March 15<sup>th</sup> of the calendar year following the calendar year in which the annual target bonus was earned by the Executive. The Bonus shall be calculated with respect to all periods of each year during which the Executive is employed by the Company. The performance milestones for 2015 are set forth on Exhibit A to this Agreement.
- d. **Long-Term Incentive Compensation.**
- i. Promptly after the date of this Agreement, the Executive shall be granted a Restricted Stock Award under the Company’s 2007 Long-Term Incentive Plan for Six Hundred Twelve Thousand Two Hundred Forty-Four (612,244) shares of the Company’s Common Stock (valued in the aggregate at \$900,000 based on the closing price of the Company’s Common Stock on the NYSE MKT on September 17, 2015) (“**Incentive Compensation**”). The Executive shall vest in the Incentive Compensation upon the earliest to occur of (a) a Change in Control, as defined herein, (b) each of (i) the resolution of the current litigation between the Company and SIGA, (ii) the termination of the SIGA bankruptcy proceedings and (iii) the development and implementation of a plan for enhancing the value of the Company after the completion of the SIGA litigation and bankruptcy process, or (c) the termination of the Executive’s employment for any reason other than (i) a Termination for Cause under Section 4.a. or (ii) a Voluntary Resignation under Section 4.c.

- ii. For the purposes of this Section 3.d., a “Change in Control” means:
- (a) an acquisition subsequent to the date hereof by any person, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), of beneficial ownership (within the meaning of Rule 13d-3 promulgated under the Exchange Act) of 30% or more of either (1) the then outstanding shares of common stock of the Company (“Common Stock”) or (2) the combined voting power of the then outstanding voting securities of the Company entitled to vote generally in the election of directors; excluding, however, any acquisition by an employee benefit plan (or related trust) sponsored or maintained by the Company;
  - (b) a merger, consolidation, reorganization or similar corporate transaction whether or not the Company is the surviving corporation in such transaction, in which outstanding shares of Common Stock are converted into (1) shares of stock of another company, other than a conversion into shares of voting common stock of the successor corporation (or a holding company thereof) representing 80% of the voting power of all capital stock thereof outstanding immediately after the merger or consolidation, or (2) other securities (of either the Company or another company) or cash or other property;
  - (c) the issuance of shares of Common Stock in connection with a merger, consolidation, reorganization or similar corporate transaction in an amount in excess of 40% of the number of shares of Common Stock outstanding immediately prior to the consummation of such transaction;
  - (d) The sale or other disposition of all or substantially all of the assets of the Company of to an entity of which the Company owns no more than 30% of the combined voting power of the then outstanding voting securities;

- (e) The distribution of or the implementation of a plan to distribute a substantial portion of the assets of the Company to shareholders;
  - (f) A complete liquidation or dissolution of the Company; or
  - (g) The adoption by the Board of a resolution to the effect that any person has acquired effective control of the business and affairs of the Company.
- iii. Notwithstanding anything herein to the contrary, in the event that the Executive receives any payments or distributions, whether payable, distributed or distributable pursuant to the terms of this Agreement or otherwise, that constitute “parachute payments” within the meaning of Section 280G of the Internal Revenue Code of 1986, as amended (the “Code”), and the net after tax amount of the parachute payment is less than the net after-tax amount if the aggregate payment to be made to the Executive were three times the “base amount” (as defined in Section 280G(b)(3) of the Code), less \$1.00, then the aggregate of the amounts constituting the parachute payment shall be reduced to an amount that will equal three times the Executive’s base amount, less \$1.00. To the extent the aggregate of the amounts constituting the parachute payments are required to be so reduced, the amounts provided under this Agreement shall be reduced (if necessary, to zero) with amounts that are payable first reduced first; provided, however, that, in all events the payments provided under this Agreement that are not subject to Section 409A of the Code shall be reduced first. The determinations to be made with respect to this Section 3.d.iii. shall be made by a certified public accounting firm mutually agreed upon by the Executive and the Company.

e. **Benefits.**

- i. During the Employment Period, the Company shall continue to provide the Executive with corporate housing in the Annapolis, Maryland area comparable to that provided on the Effective Date, or as hereafter revised with the approval of the Compensation Committee of the Board of Directors.
  - ii. The Executive shall not be entitled to participate in any employee benefit plans and programs of the Company, and shall not be entitled to receive any other fringe benefits as are, from time to time, made available by the Company generally to employees including, without limitation, medical, dental and vision insurance coverage, disability, death benefit and life insurance and pension plans, other than as required by the terms of such employee benefit plans and programs of the Company.
- f. **Expenses.** The Company shall reimburse the Executive in accordance with the practices in effect from time to time for other officers or staff personnel of the Company for all reasonable and necessary business and travel expenses and other disbursements incurred by the Executive for or on behalf of the Company in the performance of the Executive’s duties hereunder, upon presentation by the Executive to the Company of appropriate supporting documentation. The Company shall also reimburse the Executive for his legal fees and expenses incurred in connection with the review, drafting, negotiation and execution of this Agreement and related matters (not to exceed \$10,000), including but not limited to the Company’s 2007 Long-Term Incentive Plan and the Incentive Compensation to be granted thereunder.

4. **Termination of Executive's Employment.**

- a. **Termination For Cause.** The Company may terminate the employment of the Executive hereunder at any time during the Employment Period for "Cause" (such termination being herein referred to as a "**Termination for Cause**") by giving the Executive notice of such termination, which termination shall be effective on the date of such notice or such later date as may be specified by the Company. For purposes of this Agreement, "Cause" means a determination by the Board of the following: (i) the Executive's willful and substantial misconduct that is materially injurious to the Company and is either repeated after written notice from the Company specifying the misconduct or is continuing and not corrected within 20 calendar days after written notice from the Company specifying the misconduct, (ii) the Executive's repeated neglect of duties or repeated failure to act which can reasonably be expected to affect materially and adversely the business or affairs of the Company after written notice from the Company specifying the neglect or failure to act, (iii) the Executive's material and deliberate breach of any of the agreements contained in Sections 6, 7, 8, or 9 hereof or of any of the Company's material policies, (iv) the commission by the Executive of any material fraudulent act with respect to the business and affairs of the Company, (v) the Executive's conviction of (or plea of nolo contendere to) a crime constituting a felony, or (vi) the habitual insobriety or use of illegal drugs by the Executive while performing the Executive's duties under this Agreement, which adversely affects the Executive's performance of the Executive's duties under this Agreement.
- b. **Termination Without Cause** The Company may terminate the employment of the Executive hereunder at any time without "cause" or fail to extend this Agreement pursuant to the terms hereof (such termination being herein referred to as "**Termination Without Cause**") by giving the Executive notice of such termination, upon the giving of which such termination shall take effect not later than 30 days after the date such notice is given.
- c. **Voluntary Termination by Executive.** The Executive may terminate his employment with the Company at any time. Any termination of the Executive's employment by the Executive other than for Good Reason (as defined below) shall be herein referred to as "**Voluntary Termination**". A Voluntary Termination will be deemed to be effective immediately upon such termination.



d. **Termination by Executive for Good Reason.** Any termination of the employment of the Executive by the Executive for Good Reason, which shall be deemed to be equivalent to a Termination Without Cause. For purposes of this Agreement “**Good Reason**” means (i) any material breach by the Company of any of its obligations under this Agreement (including a breach of the Company’s compensation obligations under this Agreement), (ii) any material reduction in the Executive’s duties, authority, title or responsibilities without the Executive’s prior written consent, (iii) any regular and material assignment to the Executive of duties or responsibilities materially inconsistent with the Executive’s position and duties contained in this Agreement without the Executive’s prior written consent, (iv) a Change of Control of the Company, or (v) any change in the provisions of this Agreement governing where the Executive performs his services hereunder. The Executive may not terminate the Employment Period for Good Reason unless the Executive first provides the Company with written notice specifying the Good Reason within thirty (30) days of the initial existence of the Good Reason and the Company is then provided with twenty (20) days in which to remedy the stated Good Reason.

5. **Effect of Termination of Employment.**

- a. **Voluntary Termination; Termination For Cause.** Upon the termination of the Executive’s employment as a result of the Executive’s Voluntary Termination or a Termination For Cause, the Executive shall not have any further rights or claims against the Company under this Agreement except the right to receive (i) the unpaid portion of the Base Salary provided for in Section 3.a. hereof, (ii) the unpaid portion of the Executive’s housing allowance as provided in Section 3.e.i. hereof, computed on a pro rata basis to the date of termination; (iii) a pro rata portion of the Special Bonus under Section 3.c.; and (iv) reimbursement for any expenses for which the Executive shall not have theretofore been reimbursed as provided in Section 3.f. hereof.
- b. **Termination Without Cause; Termination for Good Reason; Non-Renewal of Agreement.** Upon the termination of the Executive’s employment as a result of a Termination Without Cause or for Good Reason pursuant to Section 4.b. and 4.d., respectively, or upon non-renewal of the Agreement pursuant to Section 1, the Executive shall not have any further rights or claims against the Company under this Agreement except the right to receive: (i) the payments provided for in Section 5.a. hereof; (ii) the pro rata portion of the Target Bonus that the Executive may be eligible to receive under Section 3.d. hereof, and (iii) the Incentive Compensation as provided for in Section 3.e., upon the occurrence of a Change of Control.

6. **Disclosure of Confidential Information.** The Executive shall not, directly or indirectly, at any time during or after the Employment Period, disclose to any person, firm, corporation or other business entity, except as required by law, aid others in obtaining, copy, or use for any purpose except in the good faith performance of the Executive’s duties to the Company, any Confidential Information (as herein defined). For purposes of this Agreement, “**Confidential Information**” means all trade secrets and other non-public information of a business, financial, marketing, technical or other nature pertaining to the Company or any subsidiary, including information of others that the Company or any subsidiary has agreed to keep confidential; provided, however, that Confidential Information shall not include any information that has entered or enters the public domain (other than through breach of the Executive’s obligations under this Agreement) or which the Executive is required to disclose by law or legal process. Upon the Company’s request at any time and upon termination of employment, the Executive shall promptly deliver to the Company all materials in the Executive’s possession which contain Confidential Information.

7. **Restrictive Covenant.**

- a. During his employment with the Company and solely as a result of such employment, Executive will be given access to, will become familiar with, and will acquire knowledge of the Company, its operations, finances, products, technology, as well as other Confidential Information of the Company. The Executive recognizes that he will become a primary representative of the Company. This Confidential Information, as well as the Company's goodwill have been and will continue to be developed through the Company's investment of substantial time, effort and money. Executive recognizes that disclosure or use by him of Confidential Information in competition with the Company would be greatly prejudicial and detrimental to the Company and would cause it to suffer immediate and irreparable injury.
- b. **Term of Restrictive Covenant.** Throughout the Employment Period and for a period of 12 months following the termination of the Employment Period, the Executive shall not directly or indirectly: (i) engage in the research, discovery, development, production, marketing or sale of any anthrax vaccine or any other products or product candidates being researched, discovered, developed, produced, marketed or sold by the Company at the time of termination of Executive's employment (such business or activity being herein referred to as a "**Competing Business**") whether such engagement is as an officer, director, owner, employee, partner, affiliate or other participant in any Competing Business; (ii) assist others in engaging in any Competing Business in the manner described in the foregoing clause (i); or (iii) induce other employees of the Company or any subsidiary thereof to terminate their employment with the Company or any subsidiary thereof or engage in any Competing Business or hire any employees of the Company or any subsidiary for any Competing Business unless such persons have not been employees of the Company for at least 6 months. Notwithstanding the foregoing, Executive shall be permitted to own securities of a public company not in excess of five (5%) of any class of such securities and to own stock partnership interests or other securities of any entity not in excess of two (2%) of any class of such securities and such ownership shall not be considered to be competition with the Company.

c. **Sufficient Consideration.** The Executive understands that the foregoing restrictions may limit the ability of the Executive to earn a livelihood in a business similar to the business of the Company, but nevertheless believes that the Executive has received and shall receive sufficient consideration and other benefits, as an employee of the Company and as otherwise provided hereunder, to justify such restrictions which, in any event (given the education, skills and ability of the Executive), the Executive believes would not prevent the Executive from earning a livelihood.

8. **Non-Disparagement.** The Executive shall not engage in conduct, through word, act, gesture or other means, or disclose any information to the public or any third party which directly or indirectly discredits or disparages in whole or in part the Company, its subsidiaries, divisions, affiliates and/or successors, including the products and the respective officers, directors, stockholders and employees of each of them; provided that nothing herein shall be deemed to prohibit Executive from making a truthful statement of any kind or nature regarding the Company as part of any effort of the Executive to enforce rights under this Agreement or to report possible securities violations to the Securities and Exchange Commission, or in response to a subpoena or similar legal requirement to provide testimony, or in connection with any other proper business purpose. The Company's executive officers and directors agree not to discredit or disparage the Executive to the public or any third party; provided that nothing herein shall be deemed to prohibit the Company's executive officers or directors from making truthful statements of any kind or nature regarding the Executive as part of any effort on Company's part to enforce rights under this Agreement or in response to a subpoena or similar legal requirement to provide testimony or information.

9. **Company Right to Inventions and Works.**

a. For the purposes of this Agreement, "Inventions" means inventions, prototypes, technical information, discoveries, improvements, innovations, designs, ideas, developments, procedures, techniques, knowledge, know-how, and suggestions made by the Executive during the course of performing services under this Agreement.

b. "Works" means all work of original authorship or images that are fixed in any tangible medium of expression, and all copies thereof made by the Executive during the course of performing services under this Agreement.

c. All Works shall be deemed "Works Made For Hire," as that term is used and understood within the Copyright Act of 1976, as amended. To the extent any Works are determined not to be "Works Made For Hire," and to the extent that title to or ownership of any Invention or Work and all other rights therein are not otherwise vested exclusively in the Company, the Executive shall, at any time, without further consideration, but at the Company's expense, assign and transfer to the Company his entire right, title, and interest (including copyrights and patents) in and to all such Inventions and Works.

d. The Executive shall promptly disclose, grant and assign to the Company, for its sole use and benefit, any and all Inventions, Works, and technical information relating in any way to the business of the Company which the Executive may develop or acquire during the Employment Period (whether or not during usual working hours), together with all patent applications, letters patent, copyrights and reissues thereof that may at any time be granted for or upon any such invention, improvement or technical information. In connection therewith: (i) the Executive shall, without charge, but at the expense of the Company, promptly at all times hereafter execute and deliver such applications, assignments, descriptions and other instruments as may be necessary or proper in the opinion of the Company to vest title to any such inventions, improvements, technical information, patent applications, patents, copyrights or reissues thereof in the Company and to enable it to obtain and maintain the entire right and title thereto throughout the world, and (ii) the Executive shall render to the Company, at its expense (including a reasonable payment for the time involved in case the Executive is not then in its employ), all such assistance as it may require in the prosecution of applications for said patents, copyrights or reissues thereof, in the prosecution or defense of interferences which may be declared involving any said applications, patents or copyrights and in any litigation in which the Company may be involved relating to any such patents, Inventions, or technical information.

10. **Enforcement.** It is the desire and intent of the parties hereto that the provisions of this Agreement be enforceable to the fullest extent permissible under the laws and public policies applied in each jurisdiction in which enforcement is sought. Accordingly, to the extent that a restriction contained in this Agreement is more restrictive than permitted by the laws of any jurisdiction where this Agreement may be subject to review and interpretation, the terms of such restriction, for the purpose only of the operation of such restriction in such jurisdiction, shall be the maximum restriction allowed by the laws of such jurisdiction and such restriction shall be deemed to have been revised accordingly herein.

11. **Remedies; Survival.**

- a. **Injunctive Relief.** The Executive acknowledges and understands that the provisions of the covenants contained in Sections 6, 7, 8, and 9 hereof, the violation of which cannot be accurately compensated for in damages by an action at law, are of crucial importance to the Company, and that the breach or threatened breach of the provisions of this Agreement would cause the Company irreparable harm. In the event of a breach or threatened breach by the Executive of the provisions of Sections 6, 7, 8, and 9 hereof, the Company shall be entitled to an injunction restraining the Executive from such breach and the Executive consents to the issuance of such an injunction, without the obligation of the Company to post any bond. Nothing herein contained shall be construed as prohibiting the Company from pursuing any other remedies available for any breach or threatened breach of this Agreement.
- b. **Survival.** Notwithstanding anything contained in this Agreement to the contrary, the provisions of the Sections 6 through 22 hereof shall survive the expiration or earlier termination of this Agreement until, by their terms, such provisions are no longer operative.

12. **Notices.** Notices and other communications hereunder shall be in writing and shall be delivered personally or sent by air courier or first class certified or registered mail, return receipt requested and postage prepaid, addressed as follows:

if to the Company:

PharmAthene, Inc.  
One Park Place, Suite 450  
Annapolis, Maryland 21401  
Attention: CEO

with a copy to:

Saul Ewing LLP  
Lockwood Place  
500 East Pratt Street, Suite 900  
Baltimore, MD 21202-3171  
Attention: Harriet Cooperman, Esq.

if to the Executive to:

John M. Gill

with a copy to:

Duane Morris LLP  
30 S. 17<sup>th</sup> Street  
Philadelphia, PA 19103  
Attention: Kathleen M. Shay, Esq.

All notices and other communications given to any party hereto in accordance with the provisions of this Agreement shall be deemed to have been given on the date of delivery, if personally delivered; on the business day after the date when sent, if sent by air courier; and on the third business day after the date when sent, if sent by mail, in each case addressed to such party as provided in this Section 12 or in accordance with the latest unrevoked direction from such party.

13. **Binding Agreement; Benefit.** The provisions of this Agreement shall be binding upon, and shall inure to the benefit of, the respective heirs, estate, legal representatives and successors of the parties hereto (which for the avoidance of doubt shall include any person or entity acquiring substantially all of the Company's assets or liabilities).
14. **Governing Law; Jurisdiction.** This Agreement shall be governed by, and construed and enforced in accordance with, the laws of the State of Maryland applicable to contract made and to be performed therein. Any action to enforce any of the provisions of this Agreement shall be brought in a court of the State of Maryland or in Federal court located within that State. The parties consent to the jurisdiction of such courts and to the service of process in any manner provided by Maryland law. Each party irrevocably waives any objection which it may now or hereafter have to the laying of the venue of any such suit, action or proceeding brought in such court and any claim that such suit, action or proceeding brought in such court has been brought in an inconvenient forum and agrees that service of process in accordance with the foregoing shall be deemed in every respect effective and valid personal service of process upon such party.

15. **Waiver of Breach.** The waiver by either party of a breach of any provision of this Agreement by the other party must be in writing and shall not operate or be construed as a waiver of any subsequent breach by such other party.
16. **Entire Agreement; Amendments.** This Agreement contains the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior agreements or understandings among the parties with respect thereof. This Agreement may be amended only by an agreement in writing signed by the parties hereto.
17. **Headings.** The section headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement.
18. **Severability.** It is the intention of both the Company and the Executive that this Agreement shall be enforceable to the fullest extent allowed by law. This Agreement is divisible and separable, so that if any provision shall be held to be invalid, unlawful, or unenforceable, such holding shall not impair the remaining provisions. If any provision is held to be too broad or unreasonable in duration, scope, or character of restriction, to be enforced, such provision shall be modified to the extent necessary in order to legally enforce such provision to the fullest extent permitted by law. Both the Company and the Executive expressly authorize any court of competent jurisdiction to enforce any such provision to the fullest extent permitted by law. Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction.
19. **Executive's Acknowledgement.** The Executive acknowledges (a) that the Executive has had the opportunity to consult with independent counsel of his own choice concerning this Agreement and (b) that the Executive has read and understands the Agreement, is fully aware of its legal effect and has entered into it freely based on the Executive's own judgment.
20. **Assignment.** This Agreement is personal in its nature and the parties hereto shall not, without the consent of the other, assign or transfer this Agreement or any rights or obligations hereunder; provided, that the provisions hereof shall inure to the benefit of, and be binding upon, each successor of the Company, whether by merger, consolidation, transfer of all or substantially all of its assets or otherwise.

21. **Counterparts.** This Agreement may be executed in two or more counterparts, each of which shall for all purposes constitute one agreement which is binding on all of the parties hereto.
22. **Further Actions.** Each Party agrees to execute, acknowledge and deliver such further instruments, and to do all such other acts, as may be necessary or appropriate in order to carry out the purposes and intent of the Agreement.

(Signature page follows.)

IN WITNESS WHEREOF, the parties have duly executed this Agreement as of the date first above written.

**EXECUTIVE**

/s/ John M. Gill  
\_\_\_\_\_  
John M. Gill

**PHARMATHENE, INC.**

By: /s/ Mitchel Sayare, Ph.D.  
\_\_\_\_\_  
Mitchel Sayare, Ph.D.  
Chairman of the Board of Directors



**Exhibit A**

**Performance Milestones for 2015 Annual Bonus**

- Progress toward approval of a reorganization plan for SIGA by the bankruptcy court that provides for payment to the Company by SIGA upon the completion of the litigation between the parties.
- Progress toward a decision by the Delaware Supreme Court with respect to the appeal and cross-appeal in the Company's litigation with SIGA that allows for a payment to the Company by SIGA.
- The development of a plan for enhancing the value of the Company after the completion of the SIGA litigation and bankruptcy process.

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

PharmAthene UK Limited

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**CONSENT OF ERNST & YOUNG LLP, 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, 2016, 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, 2015.

/s/ Ernst & Young LLP

Baltimore, Maryland  
March 11, 2016

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

I, John M. Gill, certify that:

1. I have reviewed this Form 10-K of PharmAthene, Inc. for the year ended December 31, 2015;
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, 2016

/s/ John M. Gill

Name: **John M. Gill**

Title: **President and Chief Executive Officer**

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

I, Philip MacNeill, certify that:

1. I have reviewed this Form 10-K of PharmAthene, Inc. for the year ended December 31, 2015;
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, 2016

/s/ Philip MacNeill

Name: **Philip MacNeill**

Title: **Vice President, Chief Financial Officer, Treasurer and Secretary**

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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, 2015, as filed with the Securities and Exchange Commission (the "Report"), I, John M. Gill, President and 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/ John M. Gill

**John M. Gill**

**President and Chief Executive Officer**

March 11, 2016

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, 2015, as filed with the Securities and Exchange Commission (the "Report"), I, Philip MacNeill, Chief Financial Officer, Treasurer and Secretary 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:

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

/s/ Philip MacNeill

**Philip MacNeill**

**Vice President, Chief Financial Officer, Treasurer and Secretary**

March 11, 2016

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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