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

# FORM 10-K/A (Amendment No. 1)

(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, 2013

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

For the transition period from

Commission File Number: 001-32587

to

# PHARMATHENE, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

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

20-2726770

21401

(Zip Code)

One Park Place, Suite 450, Annapolis, Maryland

(Address of principal executive offices)

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  $\boxtimes$  No  $\square$ 

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.  $\Box$ 

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 \$69.0 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 28, 2013).

The number of shares of the registrant's Common Stock, par value \$0.0001 per share, outstanding as of April 17, 2014 was 54,276,233.

# DOCUMENTS INCORPORATED BY REFERENCE

None.

# EXPLANATORY NOTE

This Amendment No. 1 on Form 10-K/A (this "Form 10-K/A") to the Annual Report on Form 10-K of PharmAthene, Inc. (the "Company" or "PharmAthene") for the year ended December 31, 2013, filed with the U.S. Securities and Exchange Commission on March 11, 2014 (the "Original 10-K"), is being filed for the purposes of including the information required by Part III (Items 10-14) of Form 10-K.

As a result, Part III (Items 10-14) of the Original 10-K is hereby amended and restated in its entirety. As required by Rule 12b-15, in connection with this Form 10-K/A, the Company's principal executive officer and principal financial officer are each providing Rule 13a-14(a) certifications dated April 30, 2014.

Except as described above, this Form 10-K/A does not modify or update disclosure in, or exhibits to, the Original 10-K, and such disclosure in, or exhibits to, the Original 10-K remain unchanged and speak as of the date of the original filing. In particular, this Form 10-K/A does not change any previously reported financial results, nor does it reflect events that occurred after the date of the Original 10-K.

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# i

With respect to this discussion, the terms "we," "us," "our," "PharmAthene" and the "Company" each refer to PharmAthene, Inc., a Delaware corporation and its wholly-owned subsidiaries PharmAthene UK Limited, a United Kingdom Limited Company ("PharmAthene UK") and PharmAthene Canada, Inc., a Canadian corporation ("PharmAthene Canada").

# Special Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K/A 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 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 for one or more of our development programs,
- · our common stock,
- our Loan and Security Agreement, dated as of March 30, 2012, among General Electric Capital Corporation, in its capacity as agent for the lenders, and the Company,
- · the award of government contracts to our competitors or delays caused by third parties challenging government contract awards to us,
- · unforeseen safety and efficacy issues related to our product candidates,
- challenges related to the development, commercialization, technology transfer, scale-up, and/or process validation of manufacturing processes for our product candidates,
- unexpected determinations that these product candidates prove not to be effective and/or capable of being marketed as products,
- accomplishing future strategic acquisitions or business combinations,

as well as risks detailed under the caption "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2013, and in our other reports filed with the U.S. Securities and Exchange Commission (the "SEC") from time to time thereafter. In particular, in its May 2013 decision, the Delaware Supreme Court reversed the remedy ordered by the Delaware Court of Chancery which awarded PharmAthene 50% of all net profits (as defined in the court's final judgment) related to the sale of Arestyvr<sup>TM</sup> (formerly called ST 246®) and related products for 10 years following the initial commercial sale of the drug once SIGA Technologies, Inc., or SIGA, earns \$40.0 million in net profits from the sale of Arestyvr<sup>TM</sup> and related products and remanded the issue of a remedy back to the trial court for reconsideration. As a result, there can be no assurance that the Delaware Chancery Court will issue a remedy that provides us with a financial interest in Arestvyr<sup>TM</sup> and related products or any remedy. Furthermore, there is significant uncertainty regarding the level and timing of sales of Arestvyr<sup>TM</sup> and when and whether it will be approved by the United States Food and Drug Administration, or the FDA, and corresponding health agencies around the world. Therefore, even if the Delaware Court of Chancery does award us a remedy that provides us monies related to sales or profit of Arestvyr<sup>TM</sup>, we cannot predict with certainty if or when SIGA will begin recognizing profit on the sale thereof and there can be no assurance that any profits, if recognized, received by SIGA and paid to us will be significant. Significant additional non-clinical animal studies, human clinical trials, and manufacturing development work remain to be completed for all our products candidates, including Valortim, rBChE and SparVax®. At this point, future government funding to support the development of Valortim®, rBChE and SparVax® is unlikely and remains uncertain. It is also uncertain whether any of our product candidates will be shown to be safe and effective and approved by regulatory authorities for use in humans. Forward-looking statements describe management's current expectations regarding our future plans, strategies and objectives and are generally identifiable by use of the words "may," "will," "should," "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 about potential future government contract or grant awards,
- · potential payments under government contracts or grants,
- · potential regulatory approvals,
- future product advancements, and
- anticipated financial or operational results.

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

We have based the forward-looking statements included in this Annual Report on Form 10-K/A 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 above. Unless otherwise indicated, the information contained in this Annual Report on Form 10-K/A for the fiscal year ended December 31, 2013 is as of December 31, 2013.

#### PART III

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

#### Directors

The Company's Directors are elected at each Annual Meeting of Stockholders and hold office until the next Annual Meeting of Stockholders and until their successors have been elected and qualified. Our Bylaws provide that the number of Directors constituting the entire Board shall be neither less than one nor more than nine as determined by resolution of the Board.

Set forth below is information regarding each of our Directors.

Name	Age	Position
John M. Gill*	62	Director
Brian A. Markison*	54	Director
Joel W. McCleary*	65	Director
Eric I. Richman	53	Director, President and Chief Executive Officer
Jeffrey W. Runge, M.D.*	58	Director
Mitchel B. Sayare, Ph.D.*	66	Chairman of the Board
Derace L. Schaffer, M.D.*	66	Director
Steven St. Peter, M.D.*	47	Director

\* Independent Director

John M. Gill. Mr. Gill has served as a member of the Board since August 2007 and from February 2004 to August 2007 served as a member of the Board and as Chairman of the Audit Committee of our predecessor, privately-held PharmAthene ("Former PharmAthene"). From 2003 to 2013, Mr. Gill served as the President, Chief Executive Officer, co-founder and a Director of TetraLogic Pharmaceuticals Corporation, a public biopharmaceutical company. He is also an advisor or Director of other private companies, the Kimmel Cancer Center at Thomas Jefferson University, and other non-profit community organizations. Mr. Gill has previously held positions at 3-Dimensional Pharmaceuticals and SmithKline Beecham. Mr. Gill earned a B.A. from Rutgers University. Mr. Gill was chosen to serve as a Director of the Company because of his executive and Board experience in the pharmaceutical industry and his substantial financial knowledge and expertise.

**Brian A. Markison**. Mr. Markison has been a Director since September 2011. He is a healthcare industry advisor to the private equity firm, Avista Capital Partners, Inc. He was President and Chief Executive Officer, and member of the Board, of Fougera Pharmaceuticals, Inc. from 2011 to 2012. Mr. Markison has more than 30 years of experience in the pharmaceutical industry. He formerly served as Chairman (from May 2007 through February 2011) and President and Chief Executive Officer (from July 2004 through February 2011) of King Pharmaceuticals, which he joined as Chief Operating Officer before being promoted to President and Chief Executive Officer and elected Chairman. Prior to King Pharmaceuticals, Mr. Markison held various senior leadership positions at Bristol-Myers Squibb, including President of Oncology/Virology and Oncology Therapeutics Network; President, Neuroscience / Infectious Disease and Dermatology; and Senior Vice President, Operational Excellence and Productivity. Mr. Markison serves on the Board of Directors of public companies Alere Inc., Immunomedics, Inc. and Rosetta Genomics, Ltd., where he also serves as Board Chairman. He also serves on the Board of Directors for the Komen Foundation for South / Central New Jersey and the privately held company, Lantheus MI Holdings, Inc. Since December 2013, Mr. Markison has served as Executive Director of Vertical Pharmaceuticals, LLC. Mr. Markison earned a B.S. from Iona College. Mr. Markison was chosen to serve as a Director of the Company because of the experience and broad industry knowledge he gained as a Director of, and in a variety of executive leadership positions in, public healthcare companies.

Joel W. McCleary. Mr. McCleary has served as a member of the Board since August 2007 and from inception to August 2007 was Chairman of the Board of Former PharmAthene. Mr. McCleary is a founding member of Four Seasons Ventures LLC founded in 2005. Mr. McCleary is the founder and chairman of Q Global International, an organization which provides close protection services for global leaders against the threat of assassination or incapacitation from chemical, biological and radiological threats. Prior to 2005, Mr. McCleary has served as a White House Aide, Treasurer of the Democratic Party, President of the Sawyer-Miller Group International, and President of the Institute for Asian Democracy. He has served as a consultant to the Department of State, to the Department of Defense and to the Department of Homeland Security. He is a co-founder and former Board member of Raydiance Inc. In 2012, Mr. McCleary joined the Board of advisors of Guggenheim International, a subsidiary of Guggenheim Partners LLC, a global diversified financial services firm. Guggenheim International is an organization dedicated to building cross-border strategic partnerships and providing solutions to sovereign, institutional, corporate, and high-net-worth clients. Mr. McCleary earned a B.A. from Harvard University. Mr. McCleary was chosen to serve as a Director of the Company primarily because of his impressive public service record in a variety of governmental and quasi-governmental organizations, enabling him to offer valuable guidance to the Board and the Company with respect to our government strategy.

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**Eric I. Richman**. Mr. Richman was appointed our President and Chief Operating Officer in March 2010, our interim Chief Executive Officer in May 2010 and our Chief Executive Officer in October 2010. He became a Director of the Company in May 2010. Prior to his March 2010 appointment, Mr. Richman was our Senior Vice President, Business Development and Strategic Planning since August 2003. Prior to joining the Company, Mr. Richman held various commercial and strategic positions of increasing responsibility over a 12 year period at MedImmune, Inc. from its inception and was Director, International Commercialization at that company. Mr. Richman previously served as Director of Lev Pharmaceuticals (until its acquisition by ViroPharma Incorporated in 2008) and American Bank and currently serves as Director of ADMA Biologics, Inc. Mr. Richman earned a B.S. in biomedical science from the Sophie Davis School of Biomedical Education (CUNY Medical School) and a M.B.A. from the American Graduate School of International Management. Mr. Richman was chosen to serve on the Board because of his years of experience as executive officer at the Company and his experience in the areas of business development and commercialization. As our Chief Executive Officer, Mr. Richman provides the Board with critical insight into the day-to-day operations of the Company.

Jeffrey W. Runge, M.D. Dr. Runge has served as a member of the Board since December 2009. Dr. Runge is a Principal at The Chertoff Group, a firm providing advisory services in business risk management, homeland security and homeland defense. He is also the President and founder of Biologue, Inc., which provides consulting in biodefense, medical preparedness and injury prevention and control. From 2001 through August of 2008, Dr. Runge served in the Bush administration, first as the head of the National Highway Traffic Safety Administration, and, beginning in September 2005, as the Department of Homeland Security's (DHS) first Chief Medical Officer. Dr. Runge founded the DHS Office of Health Affairs in 2007 and was confirmed by the Senate as DHS's first Assistant Secretary for Health Affairs in December of 2007. Dr. Runge also served as Acting DHS Undersecretary for Science and Technology from February through August 2006. In his role at DHS, Dr. Runge oversaw the operations of the department's biodefense activities, medical preparedness and workforce health protection, including managing DHS' role in Project BioShield, working with the various federal departments on medical countermeasure assurance. Prior to joining DHS, Dr. Runge was Assistant Chairman of the Department of Emergency Medicine at the Carolinas Medical Center in Charlotte, North Carolina, from 1984 through 2001. Dr. Runge earned his M.D. from the Medical University of South Carolina and his undergraduate degree from the University of the South. Dr. Runge was chosen to serve as a Director of the Company because of his invaluable background in the public sector, particularly his experience in the Bush administration as a founder of the DHS Office of Health Affairs, as well as his practical experience in the medical field.

**Mitchel B. Sayare, Ph.D.** Dr. Sayare has been a member of the Board since April 2010 and was appointed Chairman of the Board in July 2011. Until 2010, Dr. Sayare served as the Chairman of the Board of public company ImmunoGen, Inc. (a position he had held since 1989). In addition, he served as ImmunoGen's Chief Executive Officer from 1986 to December 31, 2008, and as its President from 1986 to 1992, and from 1994 to July 2008. Prior to joining ImmunoGen, he served as Vice President of Development of Xenogen from 1982 to 1985. Prior to that he was Assistant Professor of Biophysics and Biochemistry at the University of Connecticut. Dr. Sayare earned a Ph.D. in biochemistry from Temple University School of Medicine. Dr. Sayare is a Director of Cymogen Dx, Inc. and Isabella Products, Inc., both privately-held companies. Dr. Sayare was chosen to serve as a Director because of his substantial experience as a Board member and executive officer of biotechnology companies.

**Derace L. Schaffer, M.D.** Dr. Schaffer previously served as Vice Chairman and Chief Executive Officer of Healthcare Acquisition Corp. from April 2005 to August 2007 (prior to the Company's merger with Healthcare Acquisition Corp.). Dr. Schaffer is the founder and Chief Executive Officer of The Lan Group, a venture capital firm specializing in healthcare and high technology investments. He has served as Chairman of several healthcare companies, including Radiologix, Inc. when it was private, and he has been an active investor for approximately twenty years on a variety of healthcare companies. Dr. Schaffer is the founder of Radiologix. Dr. Schaffer served as Chief Executive Officer and Chairman of the Board of Ide Imaging Group, P.C. from 1980 to 2001. Dr. Schaffer has served as a Director on many healthcare Boards of directors, including several health systems and more than twenty healthcare services and technology companies. Dr. Schaffer received his postgraduate radiology training at Harvard Medical School and Massachusetts General Hospital, where he served as Chief Resident. He also serves as a Director of Archermobile, Inc. and has previously served as Director of American CareSource Holdings, Inc., Radiologix, King Pharmaceuticals, Inc. and of Allion Healthcare, Inc. (each a public company). Dr. Schaffer serves as a Director of the private Boards of Innovolt, Inc. and Medical Tracking Solutions, Inc. Dr. Schaffer is a member of Alpha Omega Alpha, the national medical honor society. Dr. Schaffer currently is also a Clinical Professor of Radiology at Weill Cornell Medical College. Dr. Schaffer was chosen to serve as a Director of the Company because of his substantial experience as an executive, Board member and investor in the healthcare and technology industries and his practical experience in the medical field.

**Steven St. Peter, M.D.** Dr. St. Peter has served as a member of the Board since August 2007 and from October 2004 to August 2007 was a member of the Board of Former PharmAthene. Dr. St. Peter is President, CEO and Director of Aratana Therapeutics, an animal health company, a position he assumed in September 2012. Dr. St. Peter was employed by MPM Capital from 2004 to May 2012, and he was a Managing Director based in the Boston office. His investment scope included both venture and buyout transactions across the pharmaceuticals and medical technology industries. He has previous investment experience from Apax Partners and The Carlyle Group. Dr. St. Peter was previously an assistant Clinical Professor of Medicine at Columbia University. He completed his residency and fellowship at the Hospital of the University of Pennsylvania. Prior to his medical training, he was an investment banker at Merrill Lynch. His previous Board experience includes Omrix Biopharmaceuticals, Helicos Biosciences Corporation, EKR Therapeutics, Inc., Proteon Therapeutics, Inc., Rhythm Pharmaceuticals, Inc., Syndax Pharmaceuticals, Inc. and Xanodyne Pharmaceuticals, Inc. Dr. St. Peter earned a M.D. from Washington University, M.B.A. from the Wharton School of the University of Pennsylvania and a B.A. in chemistry from the University of Kansas. Dr. St. Peter was chosen to serve as a Director of the Company because of his diverse background as a venture capital investor, investment banker, professor of medicine and Director of several healthcare companies, which provides him with a unique perspective in serving on our Board.

# **Executive Officers**

Set forth below are the names, ages and positions of our executive officers and a key consultant.

Name	Age	Office
Eric I. Richman	53	President and Chief Executive Officer
Linda L. Chang	48	Senior Vice President, Chief Financial Officer and Corporate Secretary
Francesca M. Cook	49	Senior Vice President, Policy and Government Affairs
Arthur Y. Elliott, Ph.D.*	78	Acting Chief Scientific Officer
Wayne Morges, Ph.D.	67	Senior Vice President, Regulatory Affairs and Quality

\* Not a named executive officer of the Company

Set forth below are biographical summaries of our executive officers and a key consultant who are not Directors.

**Linda L. Chang**. Ms. Chang assumed the position of Senior Vice President, Chief Financial Officer in November 2011 and Corporate Secretary in April 2014. Ms. Chang had been employed for the last 11 years at Human Genome Sciences, Inc., most recently as Senior Director of Finance. Prior to serving at Human Genome Sciences, Ms. Chang was an Associate at Booz Allen & Hamilton. Earlier in her career, Ms. Chang worked at Grant Thornton, LLP and Otsuka America Pharmaceuticals, Inc. Ms. Chang is a Certified Public Accountant (inactive). She earned an M.B.A., as well as a Master of Accountancy degree, from the University of Georgia and a B.S. from the University of California, Riverside.

**Francesca M. Cook.** Ms. Cook has been our Senior Vice President, Policy and Government Affairs since March 2010 and in February 2012 took over responsibility for our program management function. Prior to that, she served as our Vice President, Policy and Government Affairs since the merger on August 3, 2007 and from October 2003 through August 3, 2007 held the same position with Former PharmAthene. Prior to that, Ms. Cook served as Vice President, Policy & Reimbursement Services for Guilford Pharmaceuticals, Inc. from March 2001 through October 2003 and Vice President at Covance Health Economics and Outcomes Services, a health care consulting firm, from 1996 through 2001. Additionally, Ms. Cook worked in the U.S. Senate and the U.S. Department of Health and Human Services from 1988 through 1993. Ms. Cook earned a B.A. in biology from Mount Holyoke College and a Master of Public Health degree from Yale University School of Medicine, Department of Public Health.

**Arthur Y. Elliott, Ph.D.** Dr. Elliott assumed the role of acting Chief Scientific Officer for the Company in October 2012. He provides his services to the Company as a consultant to the Company. Dr. Elliott had served as a scientific advisor to the Company since June 2011. From 2010 to 2011, Dr. Elliott served as Branch Chief, responsible for the U.S. Government's Anthrax Vaccine Portfolio within the Chemical, Biological, Radiological and Nuclear (CBRN) division of the Biomedical Advanced Research and Development Authority (BARDA). Between 2006 and 2010, Dr. Elliott led, for the Department of Health and Human Services, the Avian Influenza Pandemic Preparedness Program, a government/industry collaboration between three pharmaceutical companies and four government agencies (the Department of Health and Human Services, National Institutes of Health, Centers for Disease Control, and Food and Drug Administration) to accelerate the production and stockpiling of Pandemic Influenza Vaccine for the United States Strategic National Stockpile. Prior to his government service, from 2000 to 2006, Dr. Elliott served as an on-site consultant to Aventis (Sanofi Pasteur) Pharmaceutical Corporation. From 1994 to 1999, Dr. Elliott served as Chief Operating Officer and Senior Vice President, and starting in 1998 Acting President, at North American Vaccine, Inc. Prior thereto, Dr. Elliott served for 16 years with Merck & Co., Inc., ultimately as Executive Director, Biological Operations, Merck Manufacturing Division. From 1970 to 1978, Dr. Elliott served as an associate professor in the departments of urologic surgery and microbiology at the University of Minnesota. Dr. Elliott earned his Ph.D. in virology from Purdue University, and an M.S. in microbiology and a B.A. in biology, both from North Texas State University.

**Wayne Morges, Ph.D.** Dr. Morges has been our Senior Vice President, Regulatory Affairs and Quality since October 2010 and was previously the Vice President, Regulatory Affairs and Quality from the merger in August 2007 until October 2010, and held the same position with Former PharmAthene from January 2005 through August 2007. Prior to that, Dr. Morges was the Vice President of Global Regulatory Affairs, Vaccines for Baxter Healthcare Corporation from June 2000 to November 2004. Previously, Dr. Morges worked at North American Vaccine Inc., and at Merck holding various positions of increasing responsibility in Merck's vaccine division, including heading Quality and Regulatory Affairs for licensed biologicals. Dr. Morges earned a Ph.D. in microbiology and immunology from Hahnemann University and a B.S. and M.S. from The Pennsylvania State University.



#### Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors, executive officers, and persons who own more than 10% of our common stock to file reports of ownership and changes in ownership of our common stock with the SEC. Based solely on our review of copies of these reports filed with the SEC, we believe there has been compliance with all Section 16(a) filing requirements applicable to such directors, executive officers and 10% beneficial owners for 2013.

#### **Corporate Governance**

#### **Corporate Governance Guidelines**

Pursuant to the Delaware General Corporation Law and the Company's Bylaws, the Company's business, property and affairs are managed by or under the direction of the Board. Members of the Board are kept informed of the Company's business through discussions with the Chief Executive Officer and other officers, by reviewing materials provided to them and by participating in meetings of the Board and its committees. We currently have eight members on our Board, all of whom are standing for re-election.

#### **Code of Ethics and Business Conduct**

The Company has a Code of Ethics and Business Conduct that applies to all Directors, officers and employees, which can be found on our website, www.pharmathene.com, under the heading "Investors" (see "Corporate Governance-Highlights—Governance Documents") or by writing to PharmAthene, Inc., One Park Place, Suite 450, Annapolis, Maryland 21401, c/o Corporate Secretary. All of our Directors, officers and employees are expected to be familiar with the Code and to adhere to those principles and procedures set forth in the Code that apply to them. The Company will post any amendments to the Code of Ethics and Business Conduct, as well as any waivers that are required to be disclosed by the rules of either the SEC or the NYSE MKT, on the Company's web site, www.pharmathene.com.

#### **Director Independence**

We use the definition of "independence" under Section 803A of the NYSE MKT Company Guide, as applicable and as may be modified or supplemented from time to time, and the interpretations thereunder, to determine if the members of our Board are independent. In making this determination, our Board considers, among other things, transactions and relationships between each Director and his immediate family and the Company, including those reported in this Form 10-K/A under the caption "Certain Relationships and Related Transactions." The purpose of this review is to determine whether any such relationships or transactions are material and, therefore, inconsistent with a determination that the Directors are independent. On the basis of such review and its understanding of such relationships and transactions, our Board affirmatively determined that our Board was comprised of at least 50% independent Directors.

#### **Board Leadership Structure**

To assure effective and independent oversight of management, our Board operates with the roles of Chief Executive Officer and Chairman of the Board separated in recognition of the differences between these two roles in the management of the Company. The Chairman of the Board is an independent, non-management role.

Our Board believes that this leadership structure provides the most effective leadership model for our Company. By permitting more effective monitoring and objective evaluation of the Chief Executive Officer's performance, this structure increases the accountability of the Chief Executive Officer. A separation of the Chief Executive Officer and Chairman roles also prevents the former from controlling the Board's agenda and information flow, thereby reducing the likelihood that the Chief Executive Officer would abuse his power.

#### **Board Oversight of Risk Management**

Our Board believes that overseeing how management manages the various risks we face is one of its most important responsibilities to the Company's stakeholders. Our Board believes that, in light of the interrelated nature of the Company's risks, oversight of risk management is ultimately the responsibility of the full Board; however, it has delegated this responsibility to the Audit Committee with respect to financial risk. The Audit Committee periodically meets with management and the independent registered public accounting firm to review the Company's major financial risk exposures and the steps taken to monitor and control such exposures. Our Board meets regularly to discuss the strategic direction and the issues and opportunities facing our Company in light of trends and developments in the biodefense industry and general business environment. Throughout the year, our Board provides guidance to management regarding our strategy and helps to refine our operating plans to implement our strategy. The involvement of the Board in setting our business strategy is critical to the determination of the types and appropriate levels of risk undertaken by the Company.



#### **Board Meetings**

During the fiscal year ended December 31, 2013, the Board held fourteen meetings and the Board Committees held a total of ten meetings. Each incumbent Director attended 75% or more of the total number of meetings of the Board and the Board Committees of which he was a member during the period he served as a Director in fiscal year 2013. The Board met in executive session on three occasions in the fiscal year ended December 31, 2013.

#### **Director Attendance at Annual Meeting**

The Company has no specific policy regarding Director attendance at its Annual Meeting. Generally, however, Board meetings are held immediately preceding and following the Annual Meeting, with Directors attending the Annual Meeting. Our Annual Meeting held on June 11, 2013 was attended by all of our Directors.

## **Board Committees**

The Board currently has a separately-designated standing Audit Committee established in accordance with Section 3(a)(58)(A) of the Exchange Act. In addition, the Board has a Governance and Nominating Committee and Compensation Committee. Each Committee consists entirely of independent, non-employee Directors (see "Director Independence" above). The charter of each Board Committee is available free of charge on our website, www.pharmathene.com, under the heading "Investors" (see "Corporate Governance-Highlights—Committee Charters") or by writing to PharmAthene, Inc., One Park Place, Suite 450, Annapolis, Maryland 21401, c/o Corporate Secretary. Until February 2014, the Board also had a Government Affairs Committee.

The following table below sets forth the committees, current membership of each committee and the number of committee meetings held in the fiscal year ended December 31, 2013.

		Governance and	
Name	Audit	Nominating	Compensation
John M. Gill	X*		Х
Brian A. Markison			X*
Joel W. McCleary			Х
Jeffrey W. Runge, M.D.	Х		
Mitchel B. Sayare, Ph.D.		X*	Х
Derace L. Schaffer, M.D.	Х	Х	
Steven St. Peter, M.D.		Х	
Total 2013 Meetings	4	1	5

#### \* Committee Chairperson

The primary functions of each of the Board Committees are described below.

*Audit Committee*. The primary functions of the Audit Committee are to: review the professional services and independence of our independent registered public accounting firm and our accounts, procedures and internal controls; appoint the firm selected to be our independent registered public accounting firm; review and approve the scope of the annual audit; review and evaluate with the independent registered public accounting firm our annual audit and annual consolidated financial statements; review with management the status of internal accounting controls; evaluate problem areas having a potential financial impact on us that may be brought to the Audit Committee's attention by management, the independent registered public accounting firm or the Board; and evaluate all of our public financial reporting documents.

The current members of our Audit Committee each meet the independence criteria for Directors set forth under the rules of the NYSE MKT and the additional independence criteria for members of audit committees specified in Section 803B of the NYSE MKT Company Guide and Rule 10A-3 under the Exchange Act. Each member of our Audit Committee is financially literate under the current listing standards of the NYSE MKT. Our Board has determined that John M. Gill, the chairman of the Audit Committee, qualifies as an "audit committee financial expert," as such term is defined by SEC rules. See pages 7-8 of this Form 10-K/A for the Audit Committee Report.

*Governance and Nominating Committee*. The current members of our Governance and Nominating Committee are "independent" as required by Section 804 of the NYSE MKT Company Guide.



The primary functions of the Governance and Nominating Committee are to: review and make recommendations on the range of skills and expertise which should be represented on the Board, and the eligibility criteria for individual Board and Committee membership; review and recommend to the Board the appropriate structure of the Board; identify individuals qualified to become Board members and recommend to the Board the nominees for election to the Board at the next Annual Meeting of Stockholders; implement policy and procedures with regard to consideration of any Director candidate recommended by stockholders; retain and terminate any search firm to be used to identify Director candidates, and to approve the search firm, fees and other retention terms; and review and recommend to the Board the appropriate structure of Board Committees, Committee assignments and the Board Committee chairman.

Among the factors the Governance and Nominating Committee considers when determining persons to be nominated include whether such individuals are actively engaged in business endeavors, have an understanding of financial statements, corporate budgeting and capital structure, are familiar with the requirements of a publicly traded company, are familiar with industries relevant to our business endeavors, are willing to devote significant time to the oversight duties of the Board of a public company, and are able to promote a diversity of views based on the person's education, experience and professional employment. The Governance and Nominating Committee evaluates each individual in the context of the Board as a whole, with the objective of recommending a group of persons that can best implement our business plan, perpetuate our business and represent stockholder interests. The Governance and Nominating Committee may require certain skills or attributes, such as financial or accounting experience, to meet specific Board needs that arise from time to time.

The Company is of the view that the continuing service of qualified incumbents promotes stability and continuity in the Board room, contributing to the ability of the Board to work as a collective body, while giving the Company the benefit of the familiarity and insight into the Company's affairs that its Directors have accumulated during their tenure. Accordingly, the process of the Governance and Nominating Committee for identifying nominees reflects the Company's practice of re-nominating incumbent Directors who continue to satisfy the Governance and Nominating Committee's criteria for membership on the Board, whom the Governance and Nominating Committee believes continue to make important contributions to the Board and who consent to continue their service on the Board. The Governance and Nominating Committee will identify and/or solicit recommendations for new candidates when there is no qualified and available incumbent.

The Governance and Nominating Committee will consider nominees recommended by stockholders. There are no differences in the manner in which the committee evaluates nominees for Director based on whether the nominee is recommended by a stockholder. Stockholders who would like to have our Governance and Nominating Committee consider their recommendations for nominees for the position of Director, should submit their recommendations, in accordance with the procedures set forth below, in writing to: Corporate Secretary, PharmAthene, Inc., One Park Place, Suite 450, Annapolis, Maryland 21401.

For nominations, a stockholder's notice must include: (i) as to each person whom the stockholder proposes to nominate for election as a Director, (A) the name, age, business address and residential address of such person, (B) the principal occupation or employment of such person, (C) the class and number of shares of stock of the Company that are beneficially owned by such person, (D) any other information relating to such person that is required to be disclosed in solicitations of proxies for election of Directors or is otherwise required by the rules and regulations of the SEC promulgated under the Exchange Act, and (E) the written consent of the nominee to be named in the Proxy Statement as a nominee and to serve as a Director if elected and (ii) as to the stockholder giving the notice, (A) the name, business address, and residential address, as they appear on our stock transfer books, of the nominating stockholder, (B) a representation that the nominating stockholder is a stockholder of record and intends to appear in person or by proxy at the meeting to nominate the person or persons specified in the notice, (C) the class and number of shares of stock of our Company beneficially owned by the nominating stockholder and (D) a description of all arrangements or understandings between the nominating stockholder and each nominee and any other person or persons (naming such person or persons) pursuant to which the nomination or nominations are to be made by the nominating stockholder.

*Compensation Committee*. The current members of our Compensation Committee are "independent" as required by Section 805 of the NYSE MKT Company Guide.

The Company's executive compensation program is administered by the Compensation Committee. Each member of the committee qualifies as an outside Director within the meaning of Section 162(m) of the Internal Revenue Code of 1986, as amended (the "Internal Revenue Code"). The primary functions of the Compensation Committee are to: consider, recommend, oversee and implement executive compensation plans, policies and programs; review the performance and determine the compensation of our executive officers and Directors, including the negotiation of any employment agreements with such persons, oversight and administration of the 2007 Long-Term Incentive Compensation Plan, as amended (the "2007 Plan") and the grant of options and awards under the 2007 Plan. Pursuant to Section 805 of the NYSE MKT Company Guide, compensation of our Chief Executive Officer is determined, or recommended to the Board for determination, by the Compensation Committee comprised solely of independent Directors. The Chief Executive Officer is not present during voting or deliberations. Compensation for all other officers is determined, or recommended to the Board for determination, by the Compensation for all other officers is determined, or recommended to the Board for determination, by the Compensation for all other officers is determined, or recommended to the Board for determination, by the Compensation for all other officers is determined, or recommended to the Board for determination, by the Compensation for all other officers is determined, or recommended to the Board for determination, by the Compensation for all other officers is determined, or recommended to the Board for determination, by the Compensation for all other officers is determined, or recommended to the Board for determination, by the Compensation Committee comprised solely of independent Directors.



Under the Compensation Committee Charter, our Chief Executive Officer and our Chairman of the Board may recommend to the Compensation Committee individual compensation awards for our officers. The Compensation Committee would then have to review the recommendation and make its own recommendation to the Board.

# **Process for Communicating with Board Members**

Interested parties may communicate with any and all members our Board by transmitting correspondence addressed to one or more Directors by name at the following address: PharmAthene, Inc., One Park Place, Suite 450, Annapolis, Maryland 21401, c/o Corporate Secretary. Communications from our stockholders to one or more Directors will be collected and organized by our Corporate Secretary and will be forwarded to the Chairman of the Board or to the identified Director(s) as soon as practicable. If multiple communications are received on a similar topic, the Corporate Secretary may, in his or her discretion, forward only representative correspondence.

The Chairman of the Board will determine whether any communication addressed to the entire Board should be properly addressed by the entire Board or a committee thereof. If a communication is sent to the Board or a Committee, the Chairman of the Board or the Chairman of that committee, as the case may be, will determine whether a response to the communication is warranted.

# Audit Committee Report<sup>(1)</sup>

The Audit Committee has reviewed and discussed the audited financial statements for the fiscal year ended December 31, 2013 with management of the Company and has furnished the following report for inclusion in this Form 10-K/A.

The Audit Committee consists of the Directors named below. Each member of the Audit Committee is an independent Director as defined by applicable SEC rules and NYSE MKT listing standards. In addition, the Board has determined that John M. Gill is the "audit committee financial expert" as defined by applicable SEC rules and satisfies the "financial sophistication" criteria under the applicable rules of the NYSE MKT. The Audit Committee operates under a written charter adopted by the Board, which is available free of charge on our website under the heading "Investors" (see "Corporate Governance-Highlights —Committee Charters"), or by writing to PharmAthene, Inc., One Park Place, Suite 450, Annapolis, Maryland 21401, c/o Corporate Secretary.

Management is responsible for the Company's internal controls and preparing the Company's consolidated financial statements. The Company's independent accountants are responsible for performing an independent audit of the consolidated financial statements in accordance with generally accepted auditing standards and issuing a report thereon. The committee is responsible for overseeing the conduct of these activities and appointing the Company's independent accountants. As stated above and in the committee's charter, the committee's responsibility is one of oversight. The committee does not provide any expert or special assurance as to the Company's financial statements concerning compliance with laws, regulations or generally accepted accounting principles. In performing its oversight function, the committee relies, without independent verification, on the information provided to it and on representations made by management and the independent accountants.

The Audit Committee reviewed and discussed the Company's consolidated financial statements for the year ended December 31, 2013 with management and the independent accountants. Management represented to the Audit Committee that the Company's consolidated financial statements were prepared in accordance with generally accepted accounting principles. The Audit Committee discussed with the independent accountants matters required to be discussed by Statement on Auditing Standard No. 61, as amended, Communication with Audit Committees, as adopted by the Public Company Accounting Oversight Board ("PCAOB"). The committee also reviewed, and discussed with management, management's report on internal control over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act.

The Company's independent accountants provided to the Audit Committee the written disclosures and the letter required by applicable requirements of the PCAOB regarding the independent accountants' communications with the Audit Committee concerning independence, and the Audit Committee discussed with the independent accountants their independence. The Audit Committee concluded that Ernst & Young's provision of non-audit services, as described in this Form 10-K/A, to the Company and its affiliates is compatible with Ernst & Young's independence.

Based on the Audit Committee's discussion with management and the independent accountants and the Audit Committee's review of the representations of management, the written disclosures and the letter from the independent accountants and the report of the independent accountants, the committee recommended that the Board include the audited consolidated financial statements in the Form 10-K for the year ended December 31, 2013 for filing with the SEC.

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(1) The material in this report is not "soliciting material" and is not deemed "filed" with the SEC and is not to be incorporated by reference in any of our filings under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

#### Item 11. Executive Compensation.

#### **Compensation Discussion and Analysis**

This section discusses the principles underlying our executive compensation decisions. It provides qualitative information on the factors relevant to these decisions and the manner in which compensation is awarded to our Named Executive Officers (NEOs).

#### **Compensation Objectives**

The objectives of the Compensation Committee in establishing the Company's compensation policy for executive officers and other employees are to:

- compensate competitively in order to attract, retain and motivate a highly competent executive team dedicated to achieving the Company's goals and strategic plans, which are designed to result in long-term growth in stockholder value;
- tie individual compensation to individual performance and the success of the Company; and
- align officers' and selected eligible employees' interests with those of the Company and its stockholders by providing long-term compensation opportunities through participation in the Company's equity-based incentive compensation plan and/or any successor or other long-term incentive compensation plans as may be adopted from time to time.

The market for talented individuals in the biotechnology industry is highly competitive. The committee considers peer groups, survey data and, from time to time, advice from independent compensation consultants when determining the Company's compensation structure. The committee has structured compensation between base salary and cash bonuses such that approximately 40% of our CEO's and 25% of our other senior executives' total cash compensation is at risk. Non-cash compensation for executive officers is structured to provide a reward for corporate and individual performance. The committee believes that this approach provides an appropriate incentive that aligns the executive officer compensation with the Company's long-term strategic and performance goals, and also retains and motivates key executive officers.

#### **Overview and Role of the Compensation Committee**

The Compensation Committee reviews and approves the Company's compensation policies. The specific roles of the committee include:

- recommending to the Board, in consultation with senior management of the Company, (i) the corporate goals and objectives relevant to compensation of officers and Directors and (ii) the compensation and benefits philosophy and strategy for the Company;
- recommending performance measures and, if applicable, goals for measuring performance in consultation with senior management of the Company;
   assessing the performance of the Chairman of the Board, CEO and President;
- evaluating competitive pay levels for key executives of other biodefense and life sciences companies based on industry analyses;
- recommending to the Board for approval compensation for the CEO and President, including salary, bonus, restricted securities, stock options, and, if applicable, any supplemental compensation or benefit arrangements;
- making determinations with respect to the grant of stock options and restricted securities under the 2007 Plan to all officers of the Company, other than the CEO and President, and report to the Board on such determinations at the Board's subsequent meeting;
- making determinations with respect to the grant of stock options and restricted securities under the 2007 Plan to all employees who are not officers of the Company and to consultants eligible to receive such grants under such plan, or, at the committee's sole discretion, delegate such responsibility to the CEO and President, subject to any limitations it shall impose from time to time;

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- to the extent not covered by the determinations above, reviewing and approving compensation programs applicable to officers and other selected employees and, upon recommendation of the Chairman of the Board and CEO and President, reviewing and recommending the Board's approval of individual compensation awards for the officers;
- recommending to the Board for approval the compensation for Directors, including retainer, committee chairman's fees, the grant of restricted securities or stock options and other similar items, as appropriate; and
- overseeing the preparation of, and approving, this section of the Company's annual Proxy Statement.

#### **Compensation Process**

The implementation of the compensation philosophy is carried out under the supervision of the committee. The compensation for our President and Chief Executive Officer, Mr. Richman, is approved by the Board after the committee has provided its analysis and recommendation. The compensation for the other executive officers is determined by the committee. Management, under guidelines approved by the committee, makes decisions regarding compensation of non-executive officer employees.

The Compensation Committee charter requires the committee to meet at least once per year, and in practice the committee meets several times per year. Typically late in the fourth quarter or early in the first quarter of the following year, annual executive officer performance reviews and life sciences company survey compensation data are reviewed and base salary adjustments, bonus payouts and annual equity grants approved. Annual performance goals are typically finalized in the first quarter.

#### Compensation Survey Data, Consultants and Peer Group

The committee consults publicly available compensation survey data provided by third party vendors, such as Radford, for similarly sized life sciences companies (i.e., with between 50 and 149 employees). To evaluate the Company's competitive position in the industry related to executive compensation, the committee has historically reviewed and analyzed survey data summarizing the compensation packages, including base salary levels, cash bonus awards and equity awards offered by other similarly sized life sciences companies. The committee believes selection use of these data on an annual basis provides useful long-term trend data for companies that compete with the Company for talent.

The committee has the authority to engage the services of independent compensation consultants, and it has done so from time to time in the past. In 2014, the committee engaged James Reda & Associates as a third-party compensation consultant to assist the committee in establishing annual salaries for 2014. In 2013, the committee engaged James Reda & Associates as a third-party compensation consultant to assist the committee in establishing equity compensation awards for 2013. In 2012, the committee engaged James Reda & Associates, to assist it in designing and adopting the change in control compensation policy for executives. Specifically, the committee looked at a peer group that consisted of: Somaxon Pharmaceuticals, Inc., Aelous Pharmaceuticals, Inc., Soligenix, Inc., Neurocrine Biosciences, Inc., Javelin Pharmaceuticals, Inc., SIGA Technologies, Inc., CombinatoRx, Incorporated (now known as Zalicus Inc.), Trubion Pharmaceuticals, Inc., Cypress BioScience, Inc., BioSphere Medical, Inc., Dynavax Technologies Corp., Osiris Therapeutics, Inc., Verenium Corporation, Xoma Ltd., ZymoGenetics Inc., and Emergent Biosolutions, Inc.

#### **Components of Compensation**

The Company's compensation for executives consists of five components: base salary, cash bonuses, equity awards, and retirement benefits as provided under the Company's 401(k) plan. The President and Chief Executive Officer annually reviews the performance and contributions of each executive officer (other than himself) and reports the results of such reviews to the Compensation Committee. The Board annually reviews the performance and contributions of the President and Chief Executive Officer.

Using significant discretion, the committee considers each executive's performance, contributions, responsibilities, experience and qualifications when determining the appropriate compensation level for each executive in light of the relevant compensation survey data. The components of the Company's executive officer compensation are described below.

## Base Salary

The base salary component of compensation is designed to compensate executive officers competitively at levels necessary to attract and retain qualified executives in the life sciences industry. As a general matter, the base salary for each executive officer is based on the scope of each executive's responsibilities, as well as his/her qualifications, breadth of experience, performance record, and depth and breadth of applicable functional expertise. Base salaries of the executive officers are reviewed by the committee annually in light of personal and Company goal attainment, executive officer performance reviews and compensation survey data. Adjustments to each executive's base salary are based upon individual performance, changes in the general level of base salaries of persons in comparable positions within the industry, as indicated by compensation survey data, and the average merit salary increase for such year for all employees of the Company established by the committee, as well as other factors the committee judges to be pertinent during an assessment period. In making base salary decisions, the committee exercises its discretion to determine the appropriate weight to be given to each of these factors. Adjustments may be made during the fiscal year for promotions, highly urgent competitive reasons, superior performance in response to changed or challenging circumstances and other special circumstances.

The NEO annualized base salaries for 2013 were as follows: Mr. Richman, President and Chief Executive Officer, \$456,187; Mr. Karp, former Senior Vice President and General Counsel, \$320,588; Ms. Chang, Senior Vice President, Chief Financial Officer and Corporate Secretary, \$318,000; Ms. Cook, Senior Vice President, Policy and Government Affairs, \$294,392; and Dr. Morges, Senior Vice President, Regulatory Affairs and Quality, \$286,443.

Effective January 1, 2014, the executive officers' annualized base salaries are as follows: \$496,460 for Mr. Richman; \$330,720 for Ms. Chang; \$303,959 for Ms. Cook; and \$295,752 for Dr. Morges. These adjustments to base salaries were established on expected market trends for merit increases and each officer's base salary relative to his peer group. This resulted in an approximate 5.3 percent increase in base salary for these individuals. Effective February 1, 2014, the annualized base salaries of Ms. Chang, Ms. Cook and Dr. Morges were increased by \$10,000 as a result of the elimination of their monthly automobile allowances.

# Cash Bonuses

The Compensation Committee has adopted a bonus program (the "Bonus Program") for our executive officers and other employees to be identified from time to time by the Chief Executive Officer. The Bonus Program was established to provide for the payment to members of management and identified employees of a bonus that is linked to achievement of key corporate performance objectives and, in the case of executives, also to the achievement of key personal objectives. The goal of the Bonus Program is to reward personnel by providing further compensation to members of management and identified employees based on the achievement of specified annual goals that the Compensation Committee and the Board believe correlate closely with the growth of long-term stockholder value. We believe that the Bonus Program also promotes greater communication among employees and fosters the appropriate feedback for enhanced productivity and effectiveness.

The Bonus Program is applicable to the following members of management, among other employees: the President and Chief Executive Officer, Senior Vice President, Chief Financial Officer and Corporate Secretary, the Senior Vice President and General Counsel (which was eliminated on January 30, 2014), the Senior Vice President, Policy and Government Affairs, and the Senior Vice President, Regulatory Affairs and Quality. The Chief Executive reviews and approves the annual performance objectives of each of his senior executives. Annually and based upon the recommendations of the Chief Executive Officer, the Compensation Committee approves (i) a target bonus pool amount, (ii) a target bonus payout for each executive in the Bonus Program, (iii) the corporate achievement percentages and any other one-off bonus adjustments that will be used to determine the corporate performance component of the bonus based upon a comparison of the Company's financial and operational performance for the fiscal year against the approved financial and operating plan for the fiscal year, and (iv) the relative weight or importance of the corporate performance objectives and the personal performance objectives. Annually, the Compensation Committee reviews the Company's actual financial and operational performance and each executive's personal performance to determine the appropriate adjustment to the executive's target bonus.

*Determining the annual target bonus pool.* In each fiscal year, the committee determines a target bonus pool for that fiscal year, how much of that pool should be allocated to executive officers and how much should be allocated to all other personnel. This pool will be a target which may be revised by the committee in its discretion.

For fiscal year 2013, the target bonus pool was equal to the approximate sum of (i) 60% of the base salary for the Chief Executive Officer, (ii) 30% of the aggregate base salary of the other executives and certain other key employees, and (iii) 10% of the aggregate base salary of all other employees of the Company. The target bonus pool for the Chief Executive Officer and other senior executives was based on bonus targets set forth in the employment agreements for those individuals.

The pool was divided among the relevant executives with reference to the achievement of specific personal and corporate performance targets. Generally, the Compensation Committee has the discretion to award more or less than the target bonus payout; and any particular executive or key employee may be awarded a bonus that is greater or less than 30% of their base salary and any non-executive employee may be awarded a bonus that is greater or less than 30% of their base salary and any non-executive employee may be awarded a bonus that is greater or less than 10% of their base salary. The Board has the discretion to award more or less than the target bonus payout (i.e., 60% of base salary) for the CEO. Finally, the pool may be increased at the discretion of the committee to the extent new executive officers and other employees may be hired during the year.

Determining the annual target bonus payout. During each fiscal year, the Compensation Committee determines the target bonus payout for each executive in the Bonus Program, taking into account any terms regarding bonuses which may be contained in each executive's employment agreement. The Board will consider all factors that it deems relevant to such determination, including, but not limited to, the recommendations of our Chief Executive Officer (except with respect to his own bonus), competitive market conditions, and the Board's assessment of the level of growth reflected in the Company's financial performance objectives. The executives are not subject to a maximum bonus payout. Generally, bonuses will be paid in cash.

Determining the corporate achievement percentages and corporate performance objectives. In each fiscal year, the Compensation Committee reviews with the executive team and establishes corporate performance objectives for the fiscal year that will apply to all senior executives, including the chief executive officer, and achievement percentages that will be used to evaluate the portion of the bonus applicable to each executive based upon the Company's financial and operational performance.



The Compensation Committee established with management the following corporate performance objectives for 2013, with percentage weighting reflecting the approximate percentage value to be placed upon the achievement of each target in the determination of whether the overall corporate performance objectives have been met:

- · Initiate human clinical trial for SparVax® (25%)
- Achieve contracted technical program milestones (25%)
- Annual financial performance in line with Board approved budget (30%)
- Continued strong performance under existing SparVax® development contract as reflected in customer feedback (20%)

The committee determined that the Company had achieved 55% of these goals in 2013.

The Compensation Committee established with management the following corporate performance objectives for 2014, with percentage weighting reflecting the approximate percentage value to be placed upon the achievement of each target in the determination of whether the overall corporate performance objectives have been met:

- Maximize value of rPA program (25%)
- Maximize interest in SIGA litigation (25%)
- Maintain adequate cash reserves for 12 months of operations (25%)
- Expand and diversify preclinical program and pipeline (25%)

*Determining personal performance objectives*. Each executive's annual personal performance objectives are agreed upon by the executive and approved by our Chief Executive Officer (except with respect to his own personal objectives). The personal performance objectives of our Chief Executive Officer are the corporate performance objectives set forth above.

Determining relative weight of corporate performance objectives and personal objectives. The Compensation Committee also evaluates the relative weight or importance that will be placed on achievement of the corporate performance objectives and the personal performance objectives.

*Measuring performance*. After the end of the fiscal year, the Compensation Committee measures the Company's actual performance against its corporate performance objectives and considers each executive's personal performance against his or her personal performance objectives to determine the appropriate bonus allocable to each executive officer from the target bonus pool. The committee considers the executive's overall contribution to the Company's success and, in the case of executives other than the Chief Executive Officer, the recommendation of the Chief Executive Officer. In determining the appropriate bonuses, the Compensation Committee also considers other performance considerations related to unforeseen events occurring during the fiscal year. The committee has discretion to award a bonus that is more or less than the amount determined by the procedures outlined above or to award no bonus at all.

#### Equity Awards

The committee provides the Company's executive officers with long-term incentive compensation through grants of stock options and/or restricted stock awards ("RSAs") under the 2007 Plan. The 2007 Plan creates a strong link to the Company's long term financial and equity market performance, creates an ownership culture, and closely aligns the interests of our executive officers with the stockholders. The committee believes that these grants directly motivate an executive to maximize long-term stockholder value and create an effective tool for incentivizing and retaining those executives who are most responsible for influencing stockholder value. The grants also utilize vesting periods that encourage key executives to continue in the employ of the Company. Among other things, the committee considers individual performance of the executive officer, the anticipated contribution of the executive officer to the attainment of the Company's long-term strategic performance goals, and retention and motivation of key executives in determining equity awards. The equity awards for each year are set to enable the Company to attract, motivate, and retain highly skilled executives. Long-term incentives granted in prior years may be taken into consideration, but do not play a significant role in current year determinations.

It has been the Company's practice to make equity-based awards to our executives on an annual basis. Annual non-qualified stock option awards to executives typically vest over four years and have a ten year term. In addition, from time to time, the Company has granted additional stock options to specific executive officers for promotions, superior performance in response to changed or challenging circumstances and other special circumstances. All stock option awards are priced based upon the closing price of the Company's common stock on the date of grant, which is also the approval date, by the committee or Board. From time to time the Company has also granted RSAs, with varying vesting periods. The Company does not maintain any equity ownership guidelines for its executive officers.



On January 29, 2014, the Compensation Committee approved stock option awards to the executive officers, other than the CEO, under the 2007 Plan. The Board approved a stock option award to the CEO on January 29, 2014 under the 2007 Plan. The stock option awards were determined based on individual performance and contribution to long-term strategic and performance goals and as well as retention and motivation of the NEOs. The individual grants of stock options to executive officers were: Mr. Richman 320,000 stock options; Ms. Chang 210,000 stock options; Ms. Cook 195,000 stock options; and Dr. Morges 190,000. These stock options vests 25% per year starting on the first anniversary of the date of grant.

## **Retirement Benefits**

The terms of the Company's 401(k) Savings Plan (the "401(k) Plan") provide for executive officer and broad-based employee participation on the same general terms. Under the 401(k) Plan, all Company employees were formerly eligible to receive from the Company matching contributions that vested 25% per year over four years. The Company's basic matching contribution for the 401(k) Plan was suspended September 1, 2010 and subsequently reinstated on July 1, 2013.

## Severance Agreements and Other Benefits

Executive officers are eligible to participate in the Company's employee benefit plans on the same terms as all other full-time employees. These plans include medical, dental and life insurance. In addition to the benefits available to all employees, we provide our executive officers with certain additional benefits that we believe reflect market standards and are reasonable and necessary to attract and/or retain each of our executive officers and allow the executive officers to realize the full benefit of the other elements of compensation we provide. These benefits include eligibility for four weeks of vacation from the date of hire.

In addition, executive officers are eligible to receive severance benefits in connection with terminations of employment due to death, disability, or termination without cause or constructive termination (including following a change-in-control) as set forth below and more fully described in "—Employment Agreements" and "—Severance Plan" below. The Compensation Committee believes that the executive severance arrangements reflect current market standards and severance benefits competitive with those provided by our peer group. The committee believes that to continue to retain the services of our key executive officers, it is important to provide them with some income and benefit protection against an involuntary termination of employment.

In the event that an executive dies or is disabled, the executive has the right to receive the unpaid portion of the base salary as of the date of termination, payment of the executive's accrued but unpaid amounts and extension of applicable benefits in accordance with the terms of any incentive compensation, retirement, employee welfare or other employee benefit plans or programs of the Company in which the executive is then participating in accordance with the terms of such plans or programs, and reimbursement for any expenses for which the executive shall not have theretofore been reimbursed.

Upon the termination of an executive's employment without cause or for "Good Reason," in addition to the payments set forth in the immediately preceding paragraph, the executive has the right to receive base salary continuation for 6 months (12 months in the case of Mr. Richman and 9 months in the case of Ms. Chang). Base salary continuation is conditioned on the executive entering into a general release with terms reasonably satisfactory to the Company.

Under a severance plan adopted in May 2012, as amended, our Board approved the following severance plan for the Company's executives in the event of termination of an executive's employment without cause or for "Good Reason" in the event of a "change of control." For our President and Chief Executive Officer, the plan includes: (a) payments equal to 24 months of base salary; (b) two times target annual cash bonus; (c) health and other benefits continuation for 24 months; and (d) an excise tax gross up. For the other executives, the plan includes (a) base salary continuation for 18 months; (b)1.5 times target annual cash bonus; (c) health and other benefits continuation for 18 months; and (d) in lieu of an excise tax gross up, a "best executive choice" provision under which the executive can elect to reduce his or her severance payment to the extent necessary to avoid triggering excise tax on such payment. Our Board can modify or terminate the severance plan at any time.

The committee believes that in order to continue to retain the services of our key executive officers and focus their efforts on stockholder interests when considering strategic alternatives, it is important to provide them with enhanced income and benefit protection against loss of employment in connection with a change-in-control of our Company and thereby align the interests of our stockholders and our executive officers.

# Say-on-Pay Vote

Our annual advisory stockholder vote on our executive compensation practices ("say-on-pay") was held at the 2013 Annual Meeting of Stockholders, as required by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 and applicable SEC rules. After consideration of this stockholder vote and given the substantial support received from stockholders (approximately 90% of the votes were cast in favor of our executive compensation program), the committee continues to apply the same general principles described in this compensation discussion and analysis in its determination of the amounts and types of executive compensation.

#### Tax Considerations

#### Section 162(m) Policy

The Compensation Committee has found it unnecessary to consider the applicability of Section 162(m) of the Internal Revenue Code (the "Code") because no executive officer receives compensation in excess of one million dollars.

#### **Summary Compensation Table**

The following Summary Compensation Table sets forth, for the stated fiscal years, all compensation awarded to, earned by, or paid to our NEOs, i.e., (i) all individuals serving as our principal executive officer or acting in a similar capacity during 2013 ("PEO"), (ii) all individuals serving as our principal financial officer or acting in a similar capacity during 2013 ("PFO"), (iii) our three most highly compensated executive officers other than the PEO and the PFO who were serving as executive officers of the Company at December 31, 2013 and who received annual compensation in excess of \$100,000, and (iv) up to two additional individuals who would have been included under (iii) above but for the fact that they were not serving as an executive officer of the Company at December 31, 2013.

Name and Principal Position	Year	Salary (\$)	Bonus (\$) <sup>(1)</sup>	Stock Awards (\$) <sup>(2)</sup>	Option Awards (\$) <sup>(2)</sup>	Non-equity Incentive Plan Compensation (\$) <sup>(1)</sup>	All Other Compensation (\$)	Total (\$)
Eric I. Richman	2013	456,187	-	-	455,600	68,428	-	980,215
President and Chief	2012	442,900	146,157	-	129,915	-	-	718,972
Executive Officer, Director <sup>(3)</sup>	2011	435,000	93,560	131,000	225,312	-	-	884,872
Linda L. Chang Senior Vice President, Chief Financial Officer and Corporate Secretary	2013	318,000	-	-	298,988	58,194	9,000	684,182
(4)	2012	300,000	71,100	-	61,695	-	-	432,795
Jordan P. Karp, Esq.	2013	320,588	20,000	-	-	40,202	12,000	392,790
Senior Vice President	2012	309,000	67,671	-	53,469	-	12,000	442,140
and General Counsel <sup>(5)</sup>	2011	300,000	44,280	44,000	124,818	-	12,000	525,098
Francesca M. Cook	2013	294,392	-	-	277,631	36,917	12,000	620,940
Senior Vice President,	2012	283,069	67,087	-	53,469	-	12,000	415,625
Policy and Government Affairs <sup>(6)</sup>								
Wayne Morges, Ph.D.	2013	286,443	40,000	-	270,513	35,920	12,000	644,876
Senior Vice President	2015	200,440	40,000	_	270,515	55,520	12,000	044,070
Regulatory Affairs and Quality <sup>(7)</sup>								
regulatory mains and Quanty								

(1) Amounts appearing in the Bonus column include any previously guaranteed bonuses and, in accordance with SEC guidance, also include discretionary bonus payments, while any amounts appearing in the Non-equity Incentive Plan Compensation column reflect non-discretionary bonus payments awarded under the PharmAthene Bonus Program for executive officers and other employees, i.e., any amounts that were earned by the executive officers by meeting the relevant performance objectives specified in the PharmAthene Bonus Program. For 2013, those performance objectives are described in "—Compensation Discussion and Analysis" above.

(2) Dollar amounts shown reflect the aggregate grant date fair value of stock/options computed in accordance with FASB ASC Topic 718 (formerly FAS 123R). The fair value was estimated using the assumptions detailed in Note 8 to the Company's Consolidated Financial Statements included in our Annual Reports on Form 10-K for the fiscal years ended December 31, 2013 and 2012, respectively. The material terms of each grant are described in the footnotes to the "Outstanding Equity Awards at Fiscal Year-End table" below.

(3) Mr. Richman was appointed our President and Chief Operating Officer on March 25, 2010, our interim Chief Executive Officer on May 2, 2010 and our Chief Executive Officer on October 20, 2010. He became a Director of the Company on May 17, 2010. Mr. Richman did not receive any compensation for his service in his capacity as Director.

(4) Ms. Chang was appointed our Senior Vice President and Chief Financial Officer in November 2011 and Corporate Secretary in April 2014. As Ms. Chang was not a NEO prior to 2012, her summary compensation information for those years has been omitted from this table.

(5) Effective January 30, 2014, Mr. Karp is no longer an employee of the Company. He was a NEO during 2013.

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(6) As Ms. Cook was not a NEO prior to 2012, her summary compensation information for those years has been omitted from this table.

(7) Dr. Morges was appointed our Senior Vice President, Regulatory Affairs and Quality on October 11, 2010. As Dr. Morges was not a NEO prior to 2013, his summary compensation information for those years is omitted from this table.

# **Grants of Plan-Based Awards**

The following table sets forth information regarding each grant of an award made to each NEO for the fiscal year ended December 31, 2013, but awarded in 2014, under any plan, contract, authorization or arrangement pursuant to which cash, securities, similar instruments or other property may be received.

Name	Grant Date	Number of Securities Underlying Options <sup>(1)</sup>	Exercise or Base Price of Option Awards (\$/sh) <sup>(2)</sup>	Grant Date Fair Value of Option Awards (\$) <sup>(3)</sup>
Eric I. Richman	01/29/2014	320,000	1.94	455,600
Linda L. Chang	01/29/2014	210,000	1.94	298,988
Francesca M. Cook	01/29/2014	195,000	1.94	277,631
Jordan P. Karp, Esq. (4)	01/29/2014	-	-	-
Wayne Morges, Ph.D.	01/29/2014	190,000	1.94	270,513

(1) Represents shares of common stock issuable upon exercise of relevant stock options.

(2) Represents the closing sales price of our common stock on the NYSE MKT on the grant date.

(3) Dollar amounts shown reflect the aggregate grant date fair value of options computed in accordance with FASB ASC Topic 718 (formerly FAS 123R). The fair value was estimated using the assumptions detailed in Note 8 to the Company's Consolidated Financial Statements included in our Annual Reports on Form 10-K for the fiscal year ended December 31, 2013. The material terms of each grant are described in the footnotes to the "Outstanding Equity Awards at Fiscal Year-End table" below.

(4) Effective January 30, 2014, Mr. Karp is no longer an employee of the Company. He was a NEO during 2013.

All 2013 equity awards were granted under our 2007 Long Term Incentive plan and vest in four equal installments on the first, second, third and fourth anniversaries of the grant date.

# Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information concerning the outstanding equity awards of each of the NEOs in the Summary Compensation Table as of December 31, 2013.

		As of De	cember 31, 2013					
		Option Aw	ards			S	tock Awa	urds
Name	Number of Securities Underlying Unexercised Options Exercisable <sup>(1)</sup>	Number of Securities Underlying Unexercised Options Unexercisable <sup>(1)</sup>	Option Exercise Price (\$)	Option Expiration Date		Number of Shares or Units That Have Not Vested <sup>(2)</sup>		Market Value of Shares or Units of Stock That Have Not Vested (\$) <sup>(3)</sup>
Eric I. Richman, President and Chief Executive Officer <sup>(4)</sup>	11,043	-	3.80	1/18/2015	(5)			
and Chief Executive Officer 🖓	$\begin{array}{c} 4,510\\ 8,282\\ 260,000\\ 30,573\\ 75,000\\ 100,000\\ 93,750\\ 93,750\\ 168,750\\ 25,000\\ 75,000\\ 91,121\\ 37,500\end{array}$	25,000 31,250 31,250 56,250 75,000 112,500	3.80 3.80 5.20 2.46 1.51 1.48 4.20 3.34 3.91 1.76 1.16 1.16 1.19	2/22/2016 1/4/2017 10/2/2017 1/21/2019 3/25/2020 5/18/2020 10/20/2020 11/3/2020 12/23/2020 9/30/2021 12/7/2021 12/7/2021 12/7/2021	(6) (7) (8) (9) (10) (11) (12) (13) (14) (15) (16) (17) (18)			
Jordan P. Karp, Esq.,	200,000	-	2.37	7/2/2018	(19)			
Senior Vice President and General Counsel	4,792 37,500	- 12,500	2.46 1.38	1/21/2019 5/6/2020	(20) (21)			
	56,250 25,000 37,500 36,900 16,250	12,550 18,750 37,500 - 48,750	3.55 1.76 1.21 1.21 1.13	12/8/2020 9/30/2021 12/1/2021 12/1/2021 12/3/2022	(22) (23) (24) (25) (26)			
	10,250	40,750	1.15	12/3/2022	(20)			
Francesca M. Cook, Senior Vice President, Policy and Government Affairs	8,283 3,222 8,281 140,000 25,737 56,250 56,250 37,500 30,933 16,250	- - - - - - - - - - - - - - - - - - -	$\begin{array}{c} 3.80\\ 3.80\\ 3.80\\ 5.20\\ 2.46\\ 1.38\\ 3.55\\ 1.21\\ 1.21\\ 1.13\end{array}$	1/18/2015 2/22/2016 1/4/2017 1/2/2017 1/21/2019 5/6/2020 12/8/2020 12/1/2021 12/1/2021 12/1/2021	(27) (28) (29) (30) (31) (32) (33) (34) (35) (36)			
Linda L. Chang, Senior Vice President, Chief Financial Officer and Corporate Secretary	20,000 75,000 18,750	- 75,000 56,250	1.59 1.59 1.13	11/7/2021 11/7/2021 12/3/2022	(37) (37) (38)	6,667	(39)	12,401
Dr. Wayne Morges, Senior Vice President Regulatory Affairs and Quality	$15,184 \\ 4,107 \\ 4,141 \\ 115,000 \\ 84,362 \\ 56,250 \\ 56,250 \\ 37,500 \\ 25,496 \\ 11,250 \\ 11,250 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15,107 \\ 15$	- - - - - - - - - - - - - - - - - - -	$\begin{array}{c} 3.80\\ 3.80\\ 5.20\\ 2.46\\ 1.38\\ 3.55\\ 1.21\\ 1.21\\ 1.13\end{array}$	1/31/2015 2/22/2016 1/4/2017 10/2/2017 1/21/2019 5/6/2020 12/8/2020 12/1/2021 12/1/2021 12/1/2021 12/3/2022	<ul> <li>(40)</li> <li>(41)</li> <li>(42)</li> <li>(43)</li> <li>(44)</li> <li>(45)</li> <li>(46)</li> <li>(47)</li> <li>(48)</li> <li>(49)</li> </ul>			

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(1) Reflects options granted under our 2007 Plan as well as options initially granted under the 2002 Long-Term Incentive Plan and assumed by us in the 2007 merger and now outstanding under the 2007 Plan. The exercise price of these options is subject to customary anti-dilution adjustments.

(2) Reflects restricted stock awards granted under our 2007 Plan on November 7, 2011. Unless otherwise indicated in the footnotes below, all shares of restricted stock vest in three equal annual installments of 33 1/3rd of the grant beginning on the first anniversary of the date of grant.

(3) Reflects a closing price of our common stock on December 31, 2013 of \$1.86 per share. The closing price of our common stock on April 17, 2014 was \$1.42

(4) Mr. Richman was appointed our President and Chief Operating Officer on March 25, 2010, our interim Chief Executive Officer on May 2, 2010 and our Chief Executive Officer on October 20, 2010. Through March 24, 2010, he was our Senior Vice President, Business Development and Strategic Planning.

(5) Reflects options to purchase 11,043 shares of common stock granted on January 18, 2005, which are fully vested.

(6) Reflects options to purchase 4,510 shares of common stock granted on February 22, 2006, which are fully vested.

(7) Reflects options to purchase 8,282 shares of common stock granted on January 4, 2007, which are fully vested.

(8) Reflects options to purchase 260,000 shares of common stock granted on October 2, 2007, which are fully vested.

(9) Reflects options to purchase 30,573 shares of common stock granted on January 21, 2009, which are fully vested.

(10) Reflects options to purchase 100,000 shares granted on March 25, 2010, pursuant to which 25% vest on the first, second, third and fourth anniversaries of the grant date, subject to accelerated vesting as described in "—Employment Agreements."

(11) Reflects options to purchase 100,000 shares granted on May 18, 2010, which are fully vested.

(12) Reflects options to purchase 125,000 shares granted on October 20, 2010, pursuant to which 25% vest on the first, second, third and fourth anniversaries of the grant date, subject to accelerated vesting as described in "—Employment Agreements."

(13) Reflects options to purchase 125,000 shares granted on November 3, 2010, pursuant to which 25% vest on the first, second, third and fourth anniversaries of the grant date, subject to accelerated vesting as described in "—Employment Agreements."

(14) Reflects options to purchase 225,000 shares granted on December 23, 2010, pursuant to which 25% vest on the first, second, third and fourth anniversaries of the grant date, subject to accelerated vesting as described in "—Employment Agreements."

(15) Reflects options to purchase 25,000 shares granted on September 30, 2011, which are fully vested.

(16) Reflects options to purchase 150,000 shares granted on December 7, 2011, pursuant to which 25% vest on the first, second, third and fourth anniversaries of the grant date, subject to accelerated vesting as described in "—Employment Agreements."

(17) Reflects options to purchase 91,121 shares granted on December 7, 2011, which are fully vested.

(18) Reflects options to purchase 150,000 shares granted on December 12, 2012, pursuant to which 25% vest on the first, second, third and fourth anniversaries of the grant date, subject to accelerated vesting as described in "—Employment Agreements."

(19) Effective January 30, 2014, Mr. Karp is no longer an employee of the Company. He was a NEO during 2013. With the exception of Mr. Karp's December 3, 2012 award, effective 90 days after Mr. Karp's termination on January 30, 2014, all of Mr. Karp's options expire, unless exercised. Reflects options to purchase 200,000 shares granted on July 2, 2008, which are fully vested.

(20) Reflects options to purchase 4,792 shares granted on January 21, 2009, which are fully vested.

(21) Reflects options to purchase 50,000 shares granted on May 6, 2010, pursuant to which 25% vest on the first, second, third and fourth anniversaries of the grant date.

(22) Reflects options to purchase 75,000 shares granted on December 8, 2010, pursuant to which 25% vest on the first, second, third and fourth anniversaries of the grant date.

(23) Reflects options to purchase 25,000 shares granted on September 30, 2011, which are fully vested.

(24) Reflects options to purchase 75,000 shares granted on December 1, 2011, pursuant to which 25% vest on the first, second, third and fourth anniversaries of the grant date.

(25) Reflects options to purchase 36,900 shares granted on December 1, 2011, which are fully vested.

(26) Reflects options to purchase 65,000 shares granted on December 3, 2012, pursuant to which 25% were to vest on the first, second, third and fourth anniversaries of the grant date. However, this award vested in full as a result of a modification made to the award as part of Mr. Karp's severance agreement and will not expire until the end of his severance period.

(27) Reflects options to purchase 11,044 shares of common stock granted on January 18, 2005, of which 2,761 were exercised and 8,283 are fully vested but unexercised.

(28) Reflects options to purchase 3,222 shares of common stock granted on February 22, 2006, which are fully vested.

(29) Reflects options to purchase 8,281 shares of common stock granted on January 4, 2007, which are fully vested.

(30) Reflects options to purchase 140,000 shares of common stock granted on October 2, 2007 which are fully vested.

(31) Reflects options to purchase 25,737 shares of common stock granted on January 21, 2009, which are fully vested.

(32) Reflects options to purchase 75,000 shares granted on May 6, 2010, pursuant to which 25% vest on the first, second, third and fourth anniversaries of the grant date.

(33) Reflects options to purchase 75,000 shares granted on December 8, 2010, pursuant to which 25% vest on the first, second, third and fourth anniversaries of the grant date.

(34) Reflects options to purchase 75,000 shares granted on December 1, 2011, pursuant to which 25% vest on the first, second, third and fourth anniversaries of the grant date.

(35) Reflects options to purchase 30,933 shares granted on December 1, 2011, which are fully vested.

(36) Reflects options to purchase 65,000 shares granted on December 3, 2012, pursuant to which 25% vest on the first, second, third and fourth anniversaries of the grant date.

(37) Reflects options to purchase 170,000 shares granted on April 5, 2010, of which 20,000 vested immediately, and 37,500 vest on the first, second, third and fourth anniversaries of the grant date.

(38) Reflects options to purchase 75,000 shares granted on December 3, 2012, pursuant to which 25% vest on the first, second, third and fourth anniversaries of the grant date.

(39) Reflects 20,000 shares of restricted stock granted on November 7, 2011 pursuant to which 33.3% vested on each anniversary of the date of grant.

(40) Reflects options to purchase 15,184 shares of common stock granted on January 31, 2005, which are fully vested.

(41) Reflects options to purchase 4,107 shares of common stock granted on February 22, 2006, which are fully vested.

(42) Reflects options to purchase 4,141 shares of common stock granted on January 4, 2007, which are fully vested.

(43) Reflects options to purchase 115,000 shares of common stock granted on October 2, 2007, which are fully vested.

(44) Reflects options to purchase 89,986 shares of common stock granted on January 21, 2009, of which 5,624 were exercised and 84,362 are fully vested but unexercised.

(45) Reflects options to purchase 75,000 shares granted on May 6, 2010, pursuant to which 25% vest on the first, second, third and fourth anniversaries of the grant date.

(46) Reflects options to purchase 75,000 shares granted on December 8, 2010, pursuant to which 25% vest on the first, second, third and fourth anniversaries of the grant date.

(47) Reflects options to purchase 75,000 shares granted on December 1, 2011, pursuant to which 25% vest on the first, second, third and fourth anniversaries of the grant date.

(48) Reflects options to purchase 25,496 shares granted on December 1, 2011, which are fully vested.

(49) Reflects options to purchase 45,000 shares granted on December 3, 2012, pursuant to which 25% vest on the first, second, third and fourth anniversaries of the grant date.

#### **Option Exercises and Stock Awards Vested**

The following table sets forth information regarding the vesting of restricted stock awards during the fiscal year ended December 31, 2013 for each NEO on an aggregated basis. There were no exercises of stock options during the fiscal year ended December 31, 2013 by a NEO.

	Sto	ck Awards
Name	Number of Shares Acquired on Vest	Value Realized on Vest <sup>(1)</sup>
Linda L. Chang	6,666	\$ 13,799

(1) The amount in the "Value Realized on Vest" column is calculated based on the difference between the closing market price per share of our common stock on the date of vest, if available, or previous business day.

#### **Employment Agreements**

#### Eric I. Richman

Mr. Richman was appointed our President and Chief Operating Officer on March 25, 2010, our Interim Chief Executive Officer on May 2, 2010, and our Chief Executive Officer on October 20, 2010. On December 23, 2010, we entered into a new employment agreement with Mr. Richman, for the period commencing on January 1, 2011 and ending on the first anniversary of such date. The term of the agreement is automatically extended for an additional year on each anniversary unless 90 days' prior written notice of non-extension is provided, provided that a nonrenewal by the Company is treated as a termination without cause under the agreement.

Under the agreement, Mr. Richman is paid an annual base salary of \$435,000, subject to annual review and increase at the option of the Compensation Committee of our Board. Effective January 1, 2014, Mr. Richman's base salary was increased to \$496,460. Mr. Richman is also eligible for an annual cash bonus, the target of which is no less than 60% of his base salary, based on the achievement of certain corporate objectives. The corporate objectives are determined on an annual basis by the Compensation Committee in consultation with Mr. Richman, while the achievement of such objectives will be determined by the Compensation Committee.

Pursuant to the agreement, as of December 23, 2010, Mr. Richman was granted an option under the Company's 2007 Long-Term Incentive Compensation Plan, as amended, to purchase 225,000 shares of the Company's common stock at an exercise price of \$3.91 per share, the closing price of the Company's common stock on the NYSE MKT on December 23, 2010. The option, which has a term of ten years, vests over a 4 year period with 25% each vesting on the first, second, third and fourth anniversaries of the grant date. In the event of a change in control during Mr. Richman's employment period and a termination other than for cause or a termination for good reason occurs on or within twelve months of the consummation of the change in control, all equity issued by the Company held by Mr. Richman and not then vested (except for the restricted stock awards which are treated as described below) will immediately and fully vest.



In accordance with the agreement, Mr. Richman received a cash bonus for 2010 of \$105,000. In addition, as of December 23, 2010, Mr. Richman was granted 35,000 shares of restricted stock of the Company under the 2007 Plan, which vested in full on the three month anniversary of the grant date.

Under the terms of the agreement, if Mr. Richman is terminated other than for cause or he resigns for good reason, he is entitled to receive, in addition to unpaid salary and expenses and payment of accrued incentive compensation amounts, (A) severance payments in the form of a continuation of his base salary in effect immediately prior to the termination for a period of 12 months following the termination, (B) a lump-sum payment equal to the accrued portion of his target bonus, including any unpaid portion of the prior year's bonus, and (C) COBRA coverage, to the extent elected, provided at the same premiums as are charged to active employees for the same level of group health coverage for a period of 12 months following termination, all of which are payable in consideration for and only after he executes a general release containing terms reasonably satisfactory to us. The same provisions apply if Mr. Richman is terminated without cause or if he resigns for good reason within 12 months of a change of control and no new employment agreement has been entered into within 90 days of such change of control, except that Mr. Richman's severance payment would be made in one lump-sum payment corresponding to 18 months' salary. He would also receive his target bonus for the year of termination and all equity-based awards held by Mr. Richman would be deemed fully vested as of the date of termination.

The agreement specifies that Mr. Richman's previous employment agreement with the Company was terminated as of January 1, 2011, other than with respect to provisions that specifically survive a termination thereof and other than with respect to the provision in Amendment No. 1 to his previous employment agreement relating to the grant of options to purchase 100,000 shares of the Company's common stock, which vested in full on May 2, 2011. Amendment No. 1 to his previous employment agreement had been executed on May 18, 2010 in connection with Mr. Richman's appointment to the position of President and Interim Chief Executive Officer. Under the amendment, Mr. Richman had been paid an annual base salary of \$350,000 effective from May 2, 2010.

The December 23, 2010 agreement requires that during his employment and for a period of 12 months (in some cases 18 months) following termination of the employment, Mr. Richman shall not directly or indirectly engage in the development, production, marketing or sale of products that compete with our products or assist others in a competing business or induce other employees of the Company to terminate their employment with us or engage in a competing business. Mr. Richman is furthermore required to refrain from directly or indirectly disclosing any confidential information obtained while working at the Company.

The agreement further specifies that if Mr. Richman becomes entitled to severance payments, subject to a limited exception in case of adverse tax effects, all salary continuation payments shall be placed in an irrevocable grantor trust, the assets of which are to be used to make the severance payments to the executive or satisfy the claims of the Company's unsecured general creditors in the event of the Company's insolvency or bankruptcy. If Mr. Richman is a "specified employee" (as determined in accordance with Treasury Regulation Section 1.409A-1(i) or related Company policy) at the time of termination, the severance payments otherwise payable to Mr. Richman during the first six months following termination (to the extent they constitute "nonqualified deferred compensation" within the meaning of Section 409A of the Internal Revenue Code and the regulations thereunder) will be deferred until the date that is six months after termination of employment (or earlier upon his death).

"Change in Control" is defined in the agreement as (i) an acquisition by any person, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Exchange Act, of beneficial ownership (within the meaning of Rule 13d-3 under the Exchange Act) of 30% or more of either (A) the then outstanding shares of common stock of the Company or (B) the combined voting power of the then outstanding voting securities of the Company entitled to vote generally in the election of Directors; excluding, however, certain acquisitions from or by the Company or an employee benefit plan sponsored or maintained by the Company; (ii) a merger, consolidation, reorganization or similar corporate transaction, in which outstanding shares of common stock are converted into (A) 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 (B) other securities (of either the Company or another company) or cash or other property; (iii) the issuance of shares of common stock in connection with a merger, consolidation, reorganization or similar corporate transaction of such transaction; (iv) the (A) the sale or other disposition of all or substantially all of the assets of the Company or (B) a complete liquidation or dissolution of the Company; or (v) 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.

Termination "for good reason" is defined as a termination by the executive for (a) any material breach by the Company of our obligations under the employment agreement; (b) any material reduction in the executive's duties, authority or responsibilities without the executive's consent; (c) any assignment to the executive of duties or responsibilities materially inconsistent with the executive's position and duties under the employment agreement without consent; (d) a relocation of the Company's principal executive offices or our determination to require the executive to be based more than 25 miles away; (e) depriving the executive of any material benefit plan; (f) non-renewal by the Company of the agreement in accordance with the terms of the agreement; or (g) the failure by the Company to obtain the specific assumption of the employment agreement by any successor or assignee of the Company or any person acquiring substantially all of the Company's assets. Mr. Richman may not terminate "for good reason" unless he first provides us with written notice specifying the good reason and provides us with 20 days in which to remedy the stated reason.

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Termination "for cause" is defined as a termination for (1) willful and substantial misconduct that materially injures us and is not corrected; (2) repeated neglect of duties or failure to act, which can reasonably be expected to materially and adversely affect our business or affairs, after written notice from us; (3) material breach of the confidentiality and related provisions of the employment agreement or of our policies; (4) commission of material fraud with respect to our business and affairs; (5) conviction of, or nolo contendere plea to, a felony; (6) demonstrable gross negligence or (7) habitual insobriety or use of illegal drugs adversely affecting the executive's duties.

Please also read the disclosure under "-Severance Plan" below with respect to "change of control" events.

#### Jordan P. Karp, Esq.

On June 30, 2008, we entered into an employment agreement with Jordan P. Karp, Esq. under which Mr. Karp served as our General Counsel, for the period commencing on June 30, 2008 and ending on the first anniversary of such date. The term of the agreement was automatically extended for an additional year on each anniversary unless 90 days' prior written notice of non-extension is provided.

Under the agreement, Mr. Karp was initially paid an annual base salary of \$275,000, subject to annual review and increase at the option of the Compensation Committee. For 2013, Mr. Karp's annual base salary was \$320,588. Mr. Karp was also eligible for an annual cash bonus of up to 30% of his base salary payable at the sole discretion of the Compensation Committee.

The agreement reflects the grant of an option, under the Company's 2007 Long-Term Incentive Compensation Plan, as amended, to purchase up to 200,000 shares of the Company's common stock at an exercise price of \$2.37 per share, the closing price of the Company's common stock on the NYSE MKT on the date of grant. The option, which has a term of ten years, vested in four equal installments beginning on the first anniversary of the date of grant.

Under the terms of his agreement, if Mr. Karp was terminated other than for cause or he resigned for good reason, he was entitled to receive, in addition to unpaid salary and expenses and payment of accrued incentive compensation amounts, severance payments in the form of a continuation of his base salary in effect immediately prior to the termination for a period of six months following the termination, which were payable in consideration for and only after he executes a general release containing terms reasonably satisfactory to us. The definitions in Mr. Richman's employment agreement of termination "for cause" and "for good reason" also apply, except that non-renewal by the Company of the agreement in accordance with the terms of the agreement does not qualify as a termination "for good reason" in the employment agreement for Mr. Karp. Please also read the disclosure under "—Severance Plan" below with respect to "change of control" events.

On January 30, 2014, the Company eliminated the position of General Counsel and terminated Mr. Karp as Senior Vice President and General Counsel of the Company. In connection therewith, the Company agreed to pay Mr. Karp an amount equal to six months of salary and to reimburse him for six months of health insurance, among other things. Mr. Karp exercised 136,900 of his 531,692 stock options during the three month period ended March 31, 2014. With the exception of Mr. Karp's December 3, 2012 award, effective 90 days after Mr. Karp's termination on January 30, 2014, all of Mr. Karp's options expire, unless exercised.

#### Linda L. Chang

On February 7, 2012, we entered into an employment agreement with Linda L. Chang, under which Ms. Chang serves as our Chief Financial Officer, for the period commencing on February 7, 2012 and ending on the first anniversary of her hiring date, November 7, 2012. The term of the agreement is automatically extended for an additional year on each anniversary unless 90 days' prior written notice of non-extension is provided.

Under the agreement, Ms. Chang is paid an annual base salary of \$300,000, subject to annual review and increase at the option of the Compensation Committee. Effective January 1, 2014, Ms. Chang's base salary was increased to \$330,720. Ms. Chang is also eligible for an annual cash bonus of up to 30% of her base salary payable at the sole discretion of the Compensation Committee, and may be eligible for additional bonuses at the option and sole discretion of the Compensation Committee based on the achievement of certain pre-determined performance milestones.

The agreement reflected payment of a \$25,000 signing bonus upon her employment with the Company, with the requirement that she repay such amount if she resigns her employment for any reason other than for "good reason" or the Company terminates her employment for "cause" prior to November 7, 2012. The agreement reflected the grant of an option, under the 2007 Plan to purchase up to 170,000 shares of the Company's common stock at an exercise price of \$1.59 per share, the closing price of the Company's common stock on the NYSE MKT on the date of grant. The option, which has a term of ten years, vests immediately with respect to 20,000 shares, with the remaining 150,000 shares vesting over a 4 year period with 25% each vesting on the first, second, third and fourth anniversaries of the grant date. The agreement also reflected the award of a restricted share grant of 20,000 shares of Company common stock under the 2007 Plan vesting at a rate of 33 1/3rd% per year starting on the first anniversary of the date of grant.

Under the terms of the agreement, if Ms. Chang is terminated other than for cause or she resigns for good reason, she is entitled to receive, in addition to unpaid salary and expenses and payment of accrued incentive compensation amounts, severance payments in the form of a continuation of her base salary in effect immediately prior to the termination for a period of nine months following the termination, which are payable in consideration for and only after she executes a general release containing terms reasonably satisfactory to us. The definitions in Mr. Richman's employment agreement of termination "for cause" and "for good reason" also apply, except that non-renewal by the Company of the agreement in accordance with the terms of the agreement does not qualify as a termination "for good reason" in the employment agreement for Ms. Chang. Please also read the disclosure under "—Severance Plan" below with respect to "change of control" events.

#### Francesca M. Cook

On April 18, 2008, we entered into an employment agreement with Francesca M. Cook, under which Ms. Cook serves as our Vice President, Policy and Government Affairs, for the period commencing on April 18, 2008 and ending on the first anniversary of such date. The term of the agreement is automatically extended for an additional year on each anniversary unless 90 days' prior written notice of non-extension is provided.

Under the agreement, Ms. Cook is paid an annual base salary of \$294,392, subject to annual review and increase at the option of the Compensation Committee. Effective January 1, 2014, Ms. Cook's base salary was increased to \$303,959. Ms. Cook is also eligible for an annual cash bonus of up to 30% of her base salary payable at the sole discretion of the Compensation Committee, and may be eligible for additional bonuses at the option and sole discretion of the Compensation Committee based on the achievement of certain pre-determined performance milestones.

Under the terms of her agreement, if Ms. Cook is terminated other than for cause or she resigns for good reason, she is entitled to receive, in addition to unpaid salary and expenses and payment of accrued incentive compensation amounts, severance payments in the form of a continuation of her base salary in effect immediately prior to the termination for a period of six months following the termination, which are payable in consideration for and only after she executes a general release containing terms reasonably satisfactory to us. The definitions in Mr. Richman's employment agreement of termination "for cause" and "for good reason" also apply, except that non-renewal by the Company of the agreement in accordance with the terms of the agreement does not qualify as a termination "for good reason" in the employment agreement for Ms. Cook. Please also read the disclosure under "—Severance Plan" below with respect to "change of control" events.

#### Wayne Morges, Ph.D.

On August 12, 2008, we entered into an employment agreement with Wayne Morges, Ph.D. under which Dr. Morges serves as our Vice President, Regulatory Affairs and Quality, for the period commencing on April 18, 2008 and ending on April 18, 2009. The term of the agreement is automatically extended for an additional year on each anniversary unless 90 days' prior written notice of non-extension is provided.

Under the agreement, Dr. Morges is paid an annual base salary of \$286,443, subject to annual review and increase at the option of the Compensation Committee. Effective January 1, 2014, Dr. Morges' base salary was increased to \$295,752. Dr. Morges is also eligible for an annual cash bonus of up to 30% of his base salary payable at the sole discretion of the Compensation Committee, and may be eligible for additional bonuses at the option and sole discretion of the Compensation Committee based on the achievement of certain pre-determined performance milestones.

#### **Potential Payments upon Termination or Change of Control**

#### Termination without Cause/For Good Reason after a Change of Control

#### Severance Plan

On May 9, 2012, our Board approved the following severance plan (the "Severance Plan") for our Chief Executive Officer and certain other executives, including our Chief Financial Officer and each NEO (collectively, the "Covered Executives"), which applies in case of a "change of control." For our President and Chief Executive Officer, the Severance Plan includes: (a) payments equal to 24 months worth of base salary; (b) two times target annual cash bonus; (c) health and other benefits continuation for 24 months; and (d) an excise tax gross up. For the other Covered Executives, the Severance Plan includes (a) base salary continuation for 18 months; (b) 1.5 times target annual cash bonus; (c) health and other benefits continuation for 18 months; and (d) in lieu of an excise tax gross up, a "best executive choice" provision under which the executive can elect to reduce his or her severance payment to the extent necessary to avoid triggering excise tax on such payment. Our Board can modify or terminate the Severance Plan at any time.

The following table sets forth the amount of potential payments and value of benefits that each NEO, who was serving as an executive officer on December 31, 2013, would have received if we had terminated the executive officer's employment on December 31, 2013 following a "change of control" as specified under the Severance Plan:



Name	Cash Payments (\$) <sup>(1)</sup>	Value of Benefits (\$) <sup>(2)</sup>	Value of Options <sup>(3)</sup>	Excise Tax Gross Up <sup>(4)</sup>
Eric I. Richman	1,459,798	55,000	136.625	620,263
Jordan P. Karp, Esq.	625,147	55,000	-	-
Francesca M. Cook	574,064	36,000	-	-
Linda L. Chang	620,100	14,000	-	-
Wavne Morges, Ph.D.	558,564	44,000	-	-

(1) Represents the sum of (a) an amount equal to 24 months' worth of base salary (for Eric I. Richman) and 18 months' worth of base salary (for all other NEOs), and (b) an amount equal to 200% of the target annual cash bonus (for Eric I. Richman) and 150% of the target annual cash bonus (for all other NEOs). According to their respective employment agreements, Mr. Richman's target bonus is up to 60% of base salary and the target bonus for all other NEOs is up to 30% of base salary.

(2) Estimated value of health and life insurance and other benefits for 24 months and 18 months, respectively.

(3) The value of the automatic acceleration of the vesting of unvested stock options held by an executive is based on the difference between: (a) the market price of the shares of the Company's common stock underlying the unvested stock options held by such officer as of December 31, 2013, which is based on the closing sale price of common stock on December 31, 2013 (i.e., \$1.86), and (b) the exercise price of the options, which range from \$1.16 to \$4.20 per share. If the closing price per share of the Company's common stock is at or below the exercise price of the unvested stock option, there is no intrinsic value associated with that unvested award at December 31, 2013. Under Mr. Richman's employment agreement, if he is terminated without cause or if he resigns for good reason within 12 months of a change of control and no new employment agreement has been entered into within 90 days of such change of control, all equity-based awards held by Mr. Richman would be deemed fully vested as of the date of termination.

(4) To the extent that Mr. Richman is subject to certain excise taxes under Section 4999 of the Internal Revenue Code, he is eligible for reimbursement of those excise taxes and any additional federal, state, local and excise tax resulting from such gross-up payments. The amount reported in the table is calculated assuming an excise tax rate of 20%. We have assumed, solely for purposes of preparing this table, that the salary continuation portion of the severance constitutes "reasonable compensation" for the restrictive covenants to which the executive is bound following the termination of employment. Accordingly, we have not treated the salary continuation portion as part of the amounts falling under Section 4999. Such assumption may change at the time of an actual change of control. All other NEOs are subject to a "best executive choice" provision under which the executive can elect to reduce his or her severance payment to the extent necessary to avoid triggering excise tax on such payment.

# Termination without Cause/For Good Reason in the Absence of a Change of Control

The following table sets forth the percentage of base salary and the stated period for continued employee benefits to which each of our NEOs is entitled, if we terminated the executive officer's employment without cause or if the NEO resigned for good reason on December 31, 2013, as set forth in the relevant employment agreement.

Name	Percentage of Annual Base Salary and Bonus	Stated Period for Continued Employee Benefits
	100% of salary for 12 months;	
	lump-sum payment of accrued portion of target bonus	
Eric I. Richman	and unpaid portion of prior year's bonus	12 Months
Francesca M. Cook	100% of salary for 6 months	-
Linda L. Chang	100% of salary for 9 months	-
Wayne Morges, Ph.D.	100% of salary for 6 months	-

The following table sets forth the amount of potential payments and value of benefits that each NEO, who was serving as an executive officer on December 31, 2013, would have received if we had terminated the executive officer's employment without cause or if the NEO resigned for good reason on December 31, 2013.

Name	Cash Payments (\$) <sup>(1)</sup>	Value of Benefits (\$) <sup>(2)</sup>	Value of Options (\$) <sup>(3)</sup>
Eric I. Richman	456,187	27,500	136,625
Francesca M. Cook	147,196	-	-
Linda L. Chang	238,500	-	-
Wayne Morges, Ph.D.	143,222	-	-

(1) See preceding table. The amounts in the table above only reflect the salary portion of the cash payments.

(2) Estimated value of health and life insurance and other benefits. See preceding table.

(3) The value of the automatic acceleration of the vesting of unvested stock options held by an executive is based on the difference between: (a) the market price of the shares of the Company's common stock underlying the unvested stock options held by such officer as of December 31, 2013, which is based on the closing sale price of common stock on December 31, 2013 (i.e., \$1.86), and (b) the exercise price of the options, which range from \$1.16 to \$4.20 per share. If the closing price per share of the Company's common stock is at or below the exercise price of an unvested stock option there is no intrinsic value associated with that unvested award at December 31, 2013.

#### **Equity Compensation Plan Information**

The following table provides information regarding the number of securities to be issued under our 2007 Plan, the weighted-average exercise price of options issued under the 2007 Plan and the number of securities remaining available for future issuance under the 2007 Plan, in each case as of December 31, 2013:

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted- average exercise price of outstanding options, warrants and rights (\$)	Number of securities remaining available for future issuance under equity compensation plans
Equity compensation plans approved by security holders	5,974,039 <sup>(1)</sup>	2.52	8,559,328 <sup>(2)</sup>
Equity compensation plans not approved by security holders	-	-	-
Total	5,974,039	2.52	8,559,328

(1) Does not include 6,667 shares of restricted stock granted under the 2007 Plan as of December 31, 2013.

(2) This amount includes shares underlying unexercised options already granted and reported in the first column. Under our 2007 Plan, such shares are not treated as issued and are not counted as used against the plan limits until the options are exercised. If we were to exclude shares underlying unexercised options already granted, this amount would be 2,585,289 as of December 31, 2013. Under our 2007 Plan, the number of shares available for issuance under such plan is automatically increased as of the first day of our fiscal year, beginning in 2009 and occurring each year thereafter through 2015, by a number that is equal to the lower of (i) 1,100,000 shares, (ii) 2.5% of the outstanding shares of common stock as of the end of our immediately preceding fiscal year, and (iii) any lesser number of shares determined by the Board; provided, however, that the aggregate number of shares available for issuance pursuant to such increases may not exceed 5,700,000 shares. This 5,700,000 share limit was reached on January 1, 2014.

Further information regarding our 2007 Plan is contained in Note 8 to our consolidated financial statements for the fiscal year ended December 31, 2013 contained in our Annual Report on Form 10-K for that year.

#### **Compensation Committee Interlocks and Insider Participation**

All members of Board committees are independent Directors, and no member is or has been an employee or former employee of the Company. In addition, no Committee member had any relationship requiring disclosure under "Certain Relationships and Related Transactions" on page 27 of this Form 10-K/A.

During the fiscal year ended December 31, 2013, none of our executive officers served on any compensation committee (or its equivalent) or the Board of Directors of any entity to the extent that such entity employs an executive officer who served on our Compensation Committee or Board.

#### **Director Compensation**

The following table sets forth the cash and non-cash compensation of our Directors (other than our Chief Executive Officer, who was not separately compensated for his service on the Board) for the fiscal year ended December 31, 2013. In the paragraph following the table and in the footnotes, we describe our standard compensation arrangement for service on the Board and Board Committees.

#### For the Fiscal Year Ended December 31, 2013

Name <sup>(1)</sup>	Fees earned or paid in cash (\$) <sup>(2)</sup>	Option Awards (\$) <sup>(3)</sup>	Total (\$)
John M. Gill	58,000	22.614	80,614
Brian A. Markison	52,000	22,614	74,614
Joel W. McCleary	53,000	22,614	75,614
Jeffrey W. Runge, M.D.	47,500	22,614	70,114
Mitchel B. Sayare, Ph.D.	45,500	22,614	68,114(4)
Derace L. Schaffer, M.D.	47,500	22,614	70,114
Steven St. Peter, M.D.	42,500	22,614	65,114

(1) See the Summary Compensation Table for disclosure related to compensation paid to Eric I. Richman, our Chief Executive Officer. Mr. Richman did not receive any additional compensation for his service as a member of our Board.

(2) Fees earned are based on membership on the Board, committee membership and leadership positions. Please refer to our general policy on compensation of the members of our Board below in "—General Policy Regarding Compensation of Directors." In addition to the other compensation received, members of the Board are reimbursed for the reasonable out-of-pocket costs incurred by them in connection with travel to and from Board and committee meetings. The amounts reflected in this column represent the cash fees earned by non-executive Directors for services during 2013. Of these amounts, the following amounts were paid in 2014 with respect to 2013 services: Gill: \$14,500, Markison: \$13,000, McCleary: \$13,250, Runge: \$11,875, Sayare: \$11,375, Schaffer: \$11,875 and St. Peter: \$10,625. The amounts reflected in this column do not include the following cash payments made to Directors during 2013 for 2012 services: Gill: \$14,500, Markison: \$13,000, McCleary: \$13,250, Runge: \$11,875, Sayare: \$10,625.

(3) The amounts in this column represent the aggregate grant date fair value for stock option awards issued during 2013 computed in accordance with FAS ASC Topic 718. As of December 31, 2013, the aggregate number of option awards outstanding (vested and unvested) for Dr. Schaffer was 130,000, for Mr. Gill was 172,759, for Mr. McCleary was 181,104, for Dr. St. Peter was 40,000 (not including options to purchase 91,104 shares assigned to the MPM Funds (as defined below)), for Dr. Runge was 100,000, for Mr. Markison was 60,000, and for Dr. Sayare was 212,139.

(4) Does not reflect options awarded in July 2011 to purchase 112,139 shares of common stock with a grant date fair value of \$205,017, of which 37,379 vested during 2013.

# **General Policy Regarding Compensation of Directors**

The following sets forth the annual compensation for non-employee members of our Board effective January 1, 2013:

- Annual cash retainer for membership on the Board is \$40,000, which may, at the election of each Director, be paid in cash or equity (in the form of non-qualified stock options and/or restricted stock awards).
  - Non-qualified stock options vest in equal quarterly installments over the period of one year and are valued pursuant to a Black-Scholes calculation using the same assumptions we used for stock option expense calculations in our then most recently filed quarterly report on Form 10-Q; and
  - o Restricted stock awards vest in equal quarterly installments over the period of one year and are valued at their fair market value on the date of grant.
- \$25,000 additional cash retainer for the chairman of the Board,
- \$15,000 cash retainer for the Audit Committee chair,
- \$5,000 cash retainer for membership on the Audit Committee (other than Audit Committee chair),
- \$12,000 cash retainer for the Compensation Committee chair,
- \$3,000 cash retainer for membership on the Compensation Committee (other than Compensation Committee chair),
- \$10,000 cash retainer for the Governance and Nominating Committee chair,
- \$2,500 cash retainer for membership on the Governance and Nominating Committee (other than Governance and Nominating Committee chair),
- \$10,000 cash retainer for the Government Affairs Committee chair (in 2013, Joel W. McCleary was the Government Affairs Committee chair),

- \$2,500 cash retainer for membership (other than Government Affairs Committee chair) on the Government Affairs Committee (in 2013, Jeffrey W. Runge, M.D. was a member of the Government Affairs Committee), and
- · No other cash fees are payable to non-employee Board members for their service on the Board.

In addition, every non-employee member of our Board is entitled annually to receive an option to purchase 20,000 shares of our common stock on the date of our Annual Meeting of Stockholders, at an exercise price per share based on the closing price of our common stock on the grant date as reported on the NYSE MKT.

In addition to the above compensation, upon initially joining the Board, a member is entitled to receive an option to purchase 20,000 shares of common stock, at an exercise price per share based on the closing price of the Company's common stock on the grant date as reported on the NYSE MKT.

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

#### Security Ownership of Certain Beneficial Owners and Management

The following table sets forth information, as it was available to the Company on April 17, 2014, except as otherwise indicated, based on information furnished by the persons named below, obtained from our transfer agent and/or obtained from certain beneficial ownership filings made by the persons named below with the SEC, with respect to the beneficial ownership of shares of the Company's common stock by (i) each person known by us to be the beneficial owner of more than 5% of our outstanding shares of the Company's common stock (inclusion in this table shall not be deemed an admission of affiliate status), (ii) each Director, nominee for Director and NEO and (iii) all Directors and executive officers as a group. Except as indicated in the footnotes to the table, the persons named in the table have sole voting and investment power with respect to all shares of common stock shown as beneficially owned by them.

Name of Beneficial Owner <sup>(1)</sup>	Number of Shares Beneficially Owned	Percentage of Outstanding Shares <sup>(2)</sup>
$\mathbf{P}$ is a full to $\mathbf{P}$ is a set of $\mathbf{H}$ if $\mathbf{P}^{(3)}$	7 100 000	12.000/
Funds Affiliated with MPM Bioventures III, L.P. <sup>(3)</sup>	7,168,930	13.00%
Funds Affiliated with Prescott Group Capital Management, L.L.C. <sup>(4)</sup>	5,244,835	9.66%
Steven St. Peter, M.D. <sup>(5)</sup> **	40,000	*
John M. Gill <sup>(6)</sup> **	171,104	*
Joel W. McCleary <sup>(7)</sup> **	306,904	*
Derace L. Schaffer, M.D. <sup>(8)</sup> **	1,281,043	2.35%
Eric I. Richman <sup>(9)</sup> **	1,288,295	2.32%
Jeffrey W. Runge, M.D. <sup>(10)</sup> **	137,700	*
Mitchel B. Sayare, Ph.D. <sup>(11)</sup> **	212,794	*
Brian A. Markison** <sup>(12)</sup>	60,000	*
Linda L. Chang <sup>(13)</sup>	143,750	*
Jordan P. Karp, Esq. <sup>(14)</sup>	446,121	*
Francesca M. Cook <sup>(15)</sup>	440,582	*
Wayne Morges, Ph.D. <sup>(16)</sup>	456,808	*
All directors and executive officers as a group (11 persons)***	4,538,980	7.91%
* Less than 1.0%		

<sup>\*</sup> Less than 1.0%

\*\* Director

\*\*\* Jordan P. Karp, Esq. was not an NEO as of April 17, 2014 and, therefore, his shares beneficially owned are not included

(1) Unless otherwise indicated in other footnotes, the address for each beneficial owner is c/o PharmAthene, Inc., One Park Place, Suite 450, Annapolis, Maryland 21401.

(2) Based on 54,321,333 shares of common stock as of April 17, 2014, of which 54,276,233 shares were outstanding on the records of our transfer agent and an additional 45,100 shares were issuable. Beneficial ownership is determined in accordance with the rules and regulations of the SEC. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, shares of common stock underlying warrants, notes or subject to options held by that person that are currently exercisable or exercisable within 60 days are deemed outstanding. Such shares, however, are not deemed outstanding for the purposes of computing the percentage ownership of any other person. Except as indicated in the following footnotes or pursuant to applicable community property laws, each stockholder named in the table has sole voting and investment power with respect to the shares set forth opposite such stockholder's name.

(3) Includes 729,108 shares issuable upon exercise of warrants. As disclosed in their Schedule 13D/A filed on December 27, 2010, the amounts included in the table are directly owned by MPM BioVentures III, L.P. ("BV III"), MPM BioVentures III-QP, L.P. ("BV III QP"), MPM BioVentures III GmbH & Co. Beteiligungs KG ("BV III KG"), MPM BioVentures III Parallel Fund, L.P. ("BV III PF") and MPM Asset Management Investors 2004 BVIII LLC ("AM LLC"). MPM BioVentures III GP, L.P. ("BV III GP") and MPM BioVentures III LLC ("BV III LLC") are the direct and indirect general partners of BV III, BV III QP, BV III KG and BV III PF (collectively with AM LLC, BV III GP and BV III LLC, the "MPM Funds"). The members of BV III LLC and AM LLC are Luke Evnin, Ansbert Gadicke, Nicholas Galakatos, Dennis Henner, Nicholas Simon III, Michael Steinmetz and Kurt Wheeler, who disclaim beneficial ownership of these shares except to the extent of their proportionate pecuniary interest therein. Dr. Steven St. Peter, a member of our Board, was affiliated with the MPM Funds through April 2012, but was not a member of the general partners and, thus, was not deemed to have beneficial ownership of the shares owned by the MPM Funds. The amount for the MPM Funds in the table above includes options to purchase 91,104 shares granted to Dr. St. Peter and subsequently assigned to MPM Funds and options to purchase 1,104 shares held directly by Ansbert Gadicke. The address for the MPM Funds is The John Hancock Tower, 200 Clarendon Street, 54th floor, Boston, Massachusetts 02116.

(4) Based on a Schedule 13G filed on April 2, 2014 by Prescott Group Capital Management, L.L.C., or Prescott, and certain entities affiliated or associated with Prescott, including Prescott Group Aggressive Small Cap, L.P., Prescott Group Aggressive Small Cap II, L.P. and Phil Frohlich, the principal of Prescott, relating to common stock of the Company, reflecting shared voting and dispositive power with respect to the 5,244,835 shares beneficially owned by the reporting persons as of such date.

(5) Consists of options to purchase 40,000 shares of common stock representing the portion of options to purchase a total of 40,000 shares of common stock that was exercisable as of April 17, 2014 or will become exercisable within 60 days thereof). Furthermore, does not include options to purchase 91,104 shares of common stock that have been assigned to the MPM Funds. Dr. St. Peter is a member of our Board. Dr. St. Peter was affiliated with the MPM Funds through April 2012 as discussed in footnote (3) above, but was not a member of the general partners and, thus, was not deemed to have beneficial ownership of the shares owned by the MPM Funds.

(6) Consists of options to purchase 171,104 shares of common stock (representing the portion of options to purchase a total of 171,104 shares of common stock that was exercisable as of April 17, 2014 or will become exercisable within 60 days thereof). Mr. Gill is a member of our Board

(7) Includes options to purchase 181,104 shares of common stock (representing the portion of options to purchase a total of 181,104 shares of common stock that was exercisable as of April 17, 2014 or will become exercisable within 60 days thereof) and 5,633 shares issuable upon exercise of warrants. Mr. McCleary is a member of our Board.

(8) Includes options to purchase 130,000 shares of common stock (representing the portion of options to purchase a total of 130,000 shares of common stock that was exercisable as of April 17, 2014 or will become exercisable within 60 days thereof) and 133,333 shares issuable upon exercise of warrants. Dr. Schaffer is a member of our Board. Of the shares beneficially owned by Dr. Schaffer, 123,929 shares, and 80,000 shares issuable upon exercise of warrants, are held in Dr. Schaffer's IRA.

(9) Includes 159,516 restricted shares granted and not relinquished for tax purposes (included herein irrespective of vesting date), options to purchase a total of 1,099,279 shares of common stock (representing the portion of options to purchase a total of 1,725,529 shares of common stock that was exercisable as of April 17, 2014 or will become exercisable within 60 days thereof) and 2,194 shares issuable upon exercise of warrants. On March 25, 2010, Mr. Richman was appointed our President, on May 2, 2010 our interim Chief Executive Officer and on October 20, 2010 our Chief Executive Officer. Mr. Richman was appointed to our Board in May 2010.

(10) Includes options to purchase a total of 100,000 shares of common stock (representing the portion of options to purchase a total of 100,000 shares of common stock that was exercisable as of April 17, 2014 or will become exercisable within 60 days thereof). Dr. Runge is a member of our Board.

(11) Includes options to purchase a total of 207,794 shares of common stock (representing the portion of options to purchase a total of 212,139 shares of common stock that was exercisable as of April 17, 2014 or will become exercisable within 60 days thereof). Dr. Sayare is a member of our Board and became its Chairman in July 2011.

(12) Includes options to purchase a total of 60,000 shares of common stock (representing the portion of options to purchase a total of 60,000 shares of common stock that was exercisable as of April 17, 2014 or will become exercisable within 60 days thereof). Mr. Markison became a member of our Board in September 2011.

(13) Includes 20,000 restricted shares granted and not relinquished for tax purposes (included herein irrespective of vesting date), options to purchase a total of 113,750 shares of common stock (representing the portion of options to purchase a total of 455,000 shares of common stock that was exercisable as of April 17, 2014 or will become exercisable within 60 days thereof). Linda L. Chang is our Senior Vice President, Chief Financial Officer and Corporate Secretary.

(14) Mr. Karp's holdings in the table above, which are as of December 31, 2013, include 21,929 restricted shares granted and not relinquished for tax purposes (included herein irrespective of vesting date), options to purchase 414,192 shares of common stock (representing the portion of options to purchase a total of 531,692 shares of common stock that was exercisable as of December 31, 2013 or will become exercisable within 60 days thereof). On January 30, 2014, the Company eliminated the position of General Counsel and terminated Mr. Karp. Mr. Karp was not a NEO as of April 17, 2014.

(15) Includes 33,604 restricted shares granted and not relinquished for tax purposes (included herein irrespective of vesting date), options to purchase 401,456 shares of common stock (representing the portion of options to purchase a total of 701,456 shares of common stock that was exercisable as of April 17, 2014 or will become exercisable within 60 days thereof). Ms. Cook is our Senior Vice President, Policy and Government Affairs.

(16) Includes 28,518 restricted shares granted and not relinquished for tax purposes (included herein irrespective of vesting date), options to purchase 428,290 shares of common stock (representing the portion of options to purchase a total of 708,290 shares of common stock that was exercisable as of April 17, 2014 or will become exercisable within 60 days thereof).

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

#### **Certain Relationships and Related Transactions**

Other than as disclosed pursuant to Item 402 of Regulation S-K in the sections entitled "Director Compensation" and "Executives and Executive Compensation" above, no reportable transactions as described in Item 404(a) of Regulation S-K took place in the year ended December 31, 2013 through the date of this Form 10-K/A.

There are no familial relationships among our Directors, nominees and/or executive officers.

The information required by Item 407(a) of Regulation S-K on Director Independence is incorporated herein by reference to "Corporate Governance" in this Form 10-K/A.

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

#### General

Our Audit Committee has appointed Ernst & Young LLP ("E&Y") as our independent registered public accountants for the fiscal year ending December 31, 2014 (the "E&Y Appointment"). Although we are not required to have the stockholders ratify the selection of E&Y as our independent registered public accounting firm, we are doing so because we believe it is a matter of good corporate practice. If the stockholders do not ratify the selection, the Audit Committee will reconsider whether or not to retain E&Y but may retain such independent registered public accounting firm in any event. Even if the selection is ratified, the Audit Committee, in its discretion, may change the appointment at any time during the year if it determines that such a change would be in the best interests of the Company and its stockholders.

During the two most recent fiscal years and the interim period preceding the engagement of E&Y, the Company has not consulted with E&Y regarding either: (i) the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered on the Company's financial statements; or (ii) any matter that was either the subject of a disagreement or reportable event identified in paragraph (a)(1)(iv) of Item 304 of Regulation S-K.

#### Audit Fees, Audit Related Fees, Tax Fees and Other Fees

The following table sets forth the aggregate fees billed to the Company during the fiscal years ended December 31, 2013 and 2012 by E&Y:

_	Fiscal 2013 (\$)	Fiscal 2012 (\$)
Audit Fees <sup>(1)</sup>	524,685	493,111
Audit Related Fees <sup>(2)</sup>	208,676	84,142
Tax Fees <sup>(3)</sup>	80,859	73,866
Total Fees	814,220	651,119

(1) Audit Fees consist of fees billed for professional services rendered for the audit of the Company's consolidated annual financial statements included in our Annual Report on Form 10-K and review of the interim consolidated financial statements included in our Quarterly Reports on Form 10-Q and services that are normally provided by our independent registered public accountants in connection with statutory and regulatory filings or engagements. For the fiscal years ended December 31, 2013 and 2012, fees for professional services billed by E&Y were \$524,685 and \$493,111, respectively.

(2) Audit-Related Fees consist of fees billed for assurance and related services that are reasonably related to the performance of the audit or review of the Company's consolidated financial statements and are not reported under "Audit Fees." This category includes fees related to non-routine SEC filings. For the fiscal years ended December 31, 2013 and 2012, fees for professional services billed by E&Y were \$208,676 and \$84,142, respectively.

(3) Tax Fees were billed for services including assistance with tax compliance and the preparation of tax returns, tax consultation services, assistance in connection with tax audits and tax advice related to mergers, acquisitions and dispositions. For the fiscal years ended December 31, 2013 and 2012, fees for professional services billed by E&Y were \$80,859 and \$73,866, respectively.

# Pre-Approval of Audit and Permissible Non-Audit Services

Our Audit Committee has considered whether the provisions of services described in the table above are compatible with maintaining auditor independence. Our Audit Committee requires pre-approval of all audit and non-audit services in one of two methods, and each of the permitted non-auditing services described above has been pre-approved by the Audit Committee. Under the first method, the engagement to render the services would be entered into pursuant to pre-approval policies and procedures established by the Audit Committee, provided (i) the policies and procedures are detailed as to the services to be performed, (ii) the Audit Committee is informed of each service, and (iii) such policies and procedures do not include delegation of the Audit Committee's responsibilities under the Exchange Act to the Company's management. Under the second method, the engagement to render the services would be presented to and pre-approved by the Audit Committee (subject to the de minimis exceptions for non-audit services described in Section 10A(i)(1)(B) of the Exchange Act that are approved by the Audit Committee prior to the completion of the audit). The Chairman of the Audit Committee has the authority to grant pre-approvals of audit and permissible non-audit services by the independent registered public accounting firm, provided that all pre-approvals by the Chairman must be presented to the full Audit Committee at its next scheduled meeting.

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# PART IV

# Item 15. Exhibits and Financial Statement Schedules.

# Exhibit Index

Exhibit	Description	
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).	
*	Filed herewith.	
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 30th day of April, 2014.

# PHARMATHENE, INC.

By: /s/ Eric I. Richman

Eric I. Richman President and Chief Executive Officer

# EXHIBIT INDEX

Exhibit	Description
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).
*	Filed herewith.
Financial Statements and Schedules of Subsidiaries and Affiliates	
None.	

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

I, Eric I. Richman, certify that:

- 1. I have reviewed this Form 10-K/A of PharmAthene, Inc. for the year ended December 31, 2013;
- 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 statement 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: April 30, 2014

/s/ Eric I. Richman Name: Eric I. Richman Title: Chief Executive Officer

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

I, Linda L. Chang, certify that:

- 1. I have reviewed this Form 10-K/A of PharmAthene, Inc. for the year ended December 31, 2013;
- 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 statement 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: April 30, 2014

/s/ Linda L. Chang Name: Linda L. Chang Title: Chief Financial Officer