UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): February 22, 2010

PHARMATHENE, INC.
(Exact name of registrant as specified in its charter)

Delaware	001-32587	20-2726770
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)

One Park Place, Suite 450, Annapolis, Maryland	21401
(Address of principal executive offices)	(Zip Code)

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

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 1.01. Entry into a Material Definitive Agreement

On February 22, 2010, PharmAthene, Inc., a Delaware corporation ("PharmAthene"), amended its existing research and development contract with the U.S. Department of Health and Human Services (HHS), operating through the Biomedical Advanced Research and Development Authority (BARDA) (HHSO100200900103C), to support the continued advanced development of SparVax™, a second generation recombinant protective antigen (rPA) anthrax vaccine targeted for future procurement in the U.S. Strategic National Stockpile (SNS).

The contract modification, which is effective February 22, 2010 and extends through December 31, 2012, provides for additional advanced development funding for SparVax™. During the base period of performance under the contract modification, i.e., through December 31, 2012, PharmAthene could receive payments of up to approximately $61 million on a cost-reimbursement-plus-fixed-fee basis, assuming that all milestones are achieved.

Under the contract modification, the government, at its sole discretion, may exercise three contract options during the base period of performance. Assuming that the government exercises all three options, PharmAthene could receive up to an additional $17 million under the contract modification.

As disclosed in PharmAthene's previous SEC filings, on September 28, 2007, NIAID and BARDA awarded to PharmAthene a $13.9 million contract for the advanced development of Valortim® as an anti-toxin therapeutic to treat inhalation anthrax infection.

Attached hereto as Exhibit 99.1 is a press release from February 23, 2010, in which PharmAthene announced the contract modification.

Item 9.01 Financial Statements and Exhibits

(d) Exhibits

No.	Description
99.1	Press release, dated February 23, 2010, issued by the Company.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

PHARMATHENE, INC.
(Registrant)

Date: February 26, 2010

By: /s/ Charles A. Reinhart III
Charles A. Reinhart III
Senior Vice President and Chief Financial Officer

FOR IMMEDIATE RELEASE

Contact:

PharmAthene, Inc.
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PHARMATHENE AWARDED UP TO ADDITIONAL $78.4 MILLION UNDER EXISTING CONTRACT FOR ADVANCED DEVELOPMENT OF SPARVAX™ ANTHRAX VACCINE

ANNAPOLIS, MD, February 23, 2010 — PharmAthene, Inc. (NYSE Amex: PIP) a biodefense company specializing in the development and commercialization of medical countermeasures against chemical and biological threats, announced today that the Department of Health and Human Services (HHS), through the Biomedical Advanced Research and Development Authority (BARDA) has modified its existing research and development contract with PharmAthene providing for up to a total of $78.4 million in additional funding, provided that certain milestones are achieved and that all contract options and extensions are exercised by the government, to support the continued advanced development of SparVax™, a second generation recombinant protective antigen (rPA) anthrax vaccine targeted for future procurement in the U.S. Strategic National Stockpile (SNS).

“We are pleased to be awarded additional development funding for our SparVax™ anthrax vaccine program, which may offer a promising improved alternative to existing anthrax vaccine options,” commented David P. Wright, President and Chief Executive Officer. “There is widespread acknowledgement among various government agencies that the United States must develop and stockpile a second generation anthrax vaccine employing modern vaccine technology that offers the potential for improved safety, convenience and enhanced cost effectiveness. New and improved anthrax vaccines, based on modern state-of-the-art recombinant vaccine technology, incorporate significant product development and technological advancements and ultimately may provide meaningful health and economic advantages.”

In addition to the funding announced today, on February 1, 2010 PharmAthene also submitted a White Paper seeking further development funding for SparVax™, in response to a Broad Agency Announcement (Solicitation Number: BAA-BARDA-09-34).

“We believe that, if awarded, funding provided under the BAA, along with the additional funding announced today, could be sufficient to advance SparVax™ to a stage where it will be eligible for consideration for a Project BioShield procurement contract,” said Mr. Wright.

SparVax™ is a highly purified recombinant protective antigen vaccine being developed for pre and post exposure protection against anthrax infection. Phase I and Phase II clinical trials involving 770 healthy human subjects have been completed and demonstrated that SparVax™ appears to be well tolerated and immunogenic in humans. These studies suggest that three doses of SparVax™, administered over a 56 day period, are sufficient to induce protective immunity. The vaccination regimen for the currently licensed anthrax vaccine, BioThrax®, requires five doses over a period of eighteen months.

The contract modification, which is effective February 22, 2010 and extends until December 31, 2012, provides for up to $61 million during a "base period" of performance with options for an additional $17 million on a cost reimbursement plus fixed fee basis in additional advanced development funding for SparVax™. Provided that certain milestones are achieved, and that all contract options and extensions are exercised by the government, the contract has a total potential value of $78.4 million. The activities outlined under the contract modification are designed to continue existing development activities already under contract (HHSO100200900103C). The modification will include non-clinical safety and efficacy studies, assay development and qualification, and process scale up and validation.

"PharmAthene has a strong track record of successfully collaborating with a number of U.S. government agencies, including, the National Institutes of Health (NIH), BARDA, the United States Army Medical Research Institute for Infectious Diseases, and the Department of Defense, to advance the development of our biodefense product portfolio to address biological and chemical threats and preserve the security and well-being of our military personnel and citizens. We are deeply committed to providing improved medical countermeasures for anthrax, which is considered to be the number one biological threat facing the Nation. We applaud President Obama's renewed commitment to protecting our Nation against the threat of bioterrorism and look forward to continuing our work with the government. It is our shared goal to develop the medical countermeasures necessary to successfully deter or quickly respond to a biologic attack and save American lives," said Mr. Wright.

Including the additional funding announced today, PharmAthene's SparVax™ program has been awarded funding commitments from the U.S. government totaling up to $213.2 million.

The rPA contract modification was announced via a Special Notice (Solicitation Number: HHSO100200900103C) *rPA Anthrax Vaccine Advance Development*, issued by HHS on December 29, 2009. The original development contract for rPA vaccine (N01-Al-30052) was issued in 2003 and transferred to BARDA on April 1, 2009.

About SparVax™

SparVax™ is a novel second generation recombinant protective (rPA) anthrax vaccine being developed for pre and post exposure protection against anthrax infection. SparVax™ is a highly purified, well characterized, sub unit vaccine comprised of a single protein (recombinant PA) manufactured in E.coli. Phase I and Phase II clinical trials involving 770 healthy human subjects have been completed and showed that SparVax™ appears to be well tolerated and immunogenic in humans. These studies suggest that three doses of SparVax™, administered several weeks apart, should be sufficient to induce protective immunity. In non-clinical studies SparVax™ has also demonstrated the capability to protect rabbits and non-human primates against a lethal aerosol spore challenge of the anthrax Ames strain.

About PharmAthene, Inc.
PharmAthene was formed to meet the critical needs of the United States and its allies by developing and commercializing medical countermeasures against biological and chemical weapons. PharmAthene's lead product development programs include:

- SparVax™ - a second generation recombinant protective antigen (rPA) anthrax vaccine
- Third generation rPA anthrax vaccine
- Valortim® - a fully human monoclonal antibody for the prevention and treatment of anthrax infection
- Protexia® - a novel bioscavenger for the prevention and treatment of morbidity and mortality associated with exposure to chemical nerve agents

For more information about PharmAthene, please visit www.PharmAthene.com.

Statement on Cautionary Factors
Except for the historical information presented herein, matters discussed may constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that are subject to certain risks and uncertainties that could cause actual results to differ materially from any future results, performance or achievements expressed or implied by such statements. Statements that are not historical facts, including statements preceded by, followed by, or that include the words “potential”; “believe”; “anticipate”; “intend”; “plan”; “expect”; “estimate”; “could”; “may”; “should”; or similar statements are forward-looking statements. PharmAthene disclaims, however, any intent or obligation to update these forward-looking statements. Risks and uncertainties include risks associated with the reliability of the results of the studies relating to human safety and possible adverse effects resulting from the administration of the Company’s product candidates, unexpected funding delays and/or reductions or elimination of U.S. government funding for one or more of the Company’s development programs, the award of government contracts to our competitors, unforeseen safety issues, challenges related to the development, 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 as well as risks detailed from time to time in PharmAthene’s Form 10-K and 10-Q under the caption “Risk Factors” and in its other reports filed with the U.S. Securities and Exchange Commission (the “SEC”). In particular, the funding provided for under this contract modification is not sufficient to complete the development work needed for SparVax™ to meet the criteria for procurement into the Strategic National Stockpile or to achieve FDA licensure. There can be no assurance that the government will provided additional funding to support the further advanced development of this product candidate to achieve these objectives. Furthermore, significant additional non-clinical animal studies, human clinical trials, and manufacturing development work remain to be completed for SparVax™. At this point there can be no assurance that this product candidate will be shown to be safe and effective and approved by regulatory authorities for use in humans. Copies of PharmAthene’s public disclosure filings are available from its investor relations department and our website under the investor relations tab at www.PharmAthene.com.

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