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): **September 25, 2008**

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:

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

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

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

o 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 September 25, 2008, PharmAthene, Inc., a Delaware corporation ("PharmAthene") entered into an agreement with the National Institutes of Health, National Institute of Allergy and Infectious Diseases ("NIAID") for the development of an anthrax vaccine containing rPA and CpG immunostimulant. The agreement is incrementally funded. Attached hereto as Exhibit 99.1 is a press release from September 26, 2008, in which PharmAthene announced the award grant.

Over the three-year base period of the agreement, PharmAthene expects to receive initial funding of up to approximately $13.2 million, which includes a cost reimbursement component and a fixed fee component payable upon achievement of certain milestone events. During the base period, PharmAthene will be responsible for pre-clinical activities, which include (i) testing of the stability of the anthrax vaccine and diluent at 35 degrees Celsius; (ii) toxicology testing in two animal species; (iii) development of non-clinical studies in preexisting animal models; and (iv) non-clinical testing of the safety and immunogenicity of the vaccine.

The agreement has a total value of up to approximately $83.9 million, assuming all development milestones are met and all contract extension are exercised by NIAID at its sole discretion.

The agreement can be extended pursuant to four separate options at NIAID's sole discretion. Under the first option, resulting in an extension of the base period for two years from the date the option is exercised, PharmAthene would, among other things, initiate and complete a dose response study to determine the efficacy and immunogenicity of the anthrax vaccine in certain models. This option has a value of up to approximately $6.1 million. Under the second option, resulting in an extension of the base period for two years from the date the option is exercised, PharmAthene would be responsible for performing a Phase I clinical trial. This option has a value of up to approximately $3.6 million. Under the third option, PharmAthene would perform scale-up and validation of the anthrax vaccine over a period of five years from the date the option is exercised. This option has a value of up to approximately $37.5 million. Under the fourth option, PharmAthene would conduct a Phase II clinical trial over a period of three years from the date that the third option (covering scale-up and validation) is exercised. This fourth option has a value of up to approximately $23.5 million. All option values consist of a cost reimbursement component and a fixed fee component based on the achievement of certain milestone events.

As disclosed in PharmAthene's previous SEC filings, PharmAthene and NIAID are also parties to an agreement relating to the advanced development of Valortim as an anti-toxin therapeutic to treat inhalation anthrax infection.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits:

Exhibit No.	Description
99.1	Press Release of PharmAthene, dated September 26, 2008

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: October 1, 2008

By: /s/ Christopher C. Camut

Christopher C. Camut
Chief Financial Officer

Contact:
Stacey Jurchison
PharmAthene, Inc.
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PHARMATHENE AWARDED NIAID CONTRACT FOR UP TO $83.9 MILLION FOR THIRD GENERATION rPA ANTHRAX VACCINE PROGRAM

ANNAPOLIS, MD – September 26, 2008 – PharmAthene, Inc. (AMEX: PIP), a biodefense company developing medical countermeasures against biological and chemical threats, announced today that the National Institute of Allergy and Infectious Diseases (NIAID), part of the National Institutes of Health (NIH), has awarded the Company a multi-year contract for up to $83.9 million for advanced development of a third generation recombinant protective antigen (rPA) anthrax vaccine.

The objective of the government's third generation program is to develop an rPA anthrax vaccine which can be stored, transported and used without the need for a conventional cold chain – an important advantage for civilian biodefense deployment within the Strategic National Stockpile. In particular, the vaccine must maintain stability for three years at 35º C and induce protective immunity in just one or two doses.

Under the contract, PharmAthene will receive initial funding of approximately $13.2 million during a "base period" of performance. During this time the Company will be responsible for preclinical activities, including, development and qualification of assays, stability testing, toxicology studies and development of non-clinical animal models. During the base period NIAID retains the option of extending the contract under two separate options with a combined value of up to $9.7 million. Additional options covering advanced manufacturing and clinical development could bring the total potential value of the contract up to approximately $83.9 million, provided that certain milestones are achieved and that all contract options and extensions are exercised by the government.

"We are pleased that NIAID has awarded such a significant contract to fund the continued development of our third generation rPA anthrax vaccine program. This latest contract is in addition to an earlier NIH contract for up to $6.9 million, which was awarded in 2005," commented David P. Wright, President and Chief Executive Officer. "PharmAthene has built a diversified, best-in-class portfolio of novel biodefense product candidates and we view this latest award as a direct validation of our technology as well as a reaffirmation of the U.S. government's commitment to the development and procurement of next generation medical countermeasure solutions."

Mr. Wright added, "Based on development efforts to date, PharmAthene's third generation vaccine could offer significant improvements in both stability and storage compared to the current FDA approved vaccine, thereby meeting the government's requirements for civilian deployment in the Strategic National Stockpile. By comparison, the currently available anthrax vaccine, BioThrax® Anthrax Vaccine Adsorbed, which was initially licensed by the Food and Drug Administration in 1970, requires six doses over a period of eighteen months to achieve protective immunity and is required to be stored at between 2º C and 8º C."

PharmAthene believes that the third generation rPA anthrax vaccine contract is part of a broader strategy by the Department of Health and Human Services to ensure that the Strategic National Stockpile (SNS) contains the most efficacious anthrax medical countermeasures currently available. Near-term, the Company believes second generation rPA anthrax vaccine will gradually replace the currently licensed vaccine. Longer-term, third generation rPA vaccine – with substantial improvements in stability and storage requirements – will be the procurement option of choice.

Mr. Wright continued, "PharmAthene is strategically building a leading franchise in anthrax countermeasures – a potential billion dollar market. This includes not only our third generation rPA vaccine candidate, but also our novel second generation rPA anthrax vaccine, SparVax™ which is positioned for near-term procurement consideration. As previously disclosed on July 31, 2008, we submitted our response to a request for proposals to the Department of Health and Human Services (DHHS) for SparVax™. The solicitation outlined a requirement to procure 25 million doses of a second generation rPA anthrax vaccine intended for inclusion in the Strategic National Stockpile. We were notified by DHHS recently that our proposal was technically acceptable and within the competitive range. The second generation rPA vaccine market represents another significant opportunity for PharmAthene, with a total potential contract award of between $350 million and $600 million. We are confident in the Company's competitive prospects for this award, which DHHS has stated should be announced by year-end 2008."

About Anthrax

Anthrax is an acute infectious disease caused by the spore-forming bacterium *Bacillus anthracis* and has the potential to be used as a weapon of bioterror when delivered in an aerosolized form. Following germination of the spores, the bacteria replicates and produces three toxins. Anthrax Protective Antigen (PA) initiates the onset of the illness by attaching to cells in the infected person where it then facilitates entry of the two additional destructive toxins – Lethal Factor and Edema Factor, into the cell.

Antibiotics are the first line of defense against anthrax infection. However, early identification and treatment are critical for successful outcome. Even with aggressive antibiotic therapy, five of the eleven victims of the 2001 anthrax postal attacks died, underscoring the need for improved vaccines and anti-toxins for the civilian population.

About SparVax™ and the Third Generation Anthrax Vaccine

SparVax™ is a novel second generation recombinant protective (rPA) anthrax vaccine consisting of rPA adsorbed onto Alhydrogel and packaged as a liquid filled syringe for intramuscular injection. Preclinical studies suggest that two or three doses of SparVax™, administered several weeks apart, should be sufficient to induce protective immunity. Phase I and Phase II clinical trials involving more than 750 healthy human subjects have been completed and showed that SparVax™ appears to be safe and well tolerated and induces an immune response in humans. In preclinical studies, SparVax™ has also demonstrated the capability to protect non-human primates against a lethal aerosol challenge of the anthrax Ames strain. A third generation rPA vaccine, requiring fewer doses to achieve protective immunity, and obviating the need for cold chain storage, is the ultimate goal for inclusion in the country's Strategic National Stockpile.

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
- RypVax™ - a recombinant dual antigen vaccine for plague

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 risk 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

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issues, 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 under the caption "Risk Factors" and in its other reports filed with the U.S. Securities and Exchange Commission (the "SEC"). In particular, just because the DHHS has awarded this contract to the Company for the advanced development of our third generation rPA anthrax vaccine, there can be no assurance that (1) the work under this contract will result in a safe and effective anthrax vaccine approved for use in humans, (2) DHHS will exercise all options under the contract, or (3) DHHS or any other government agencies or departments will ever procure doses of our third generation rPA vaccine for civilian or military purposes. 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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