

**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): **December 9, 2008**

PHARMATHENE, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-32587
(Commission
File Number)

20-2726770
(IRS Employer
Identification No.)

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

21401
(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 7.01. Regulation FD Disclosure

We are furnishing as an exhibit to this report a PowerPoint presentation that representatives of PharmAthene, Inc. (the "Company") plan to use for discussions with certain of the Company's stockholders and other interested persons.

Any information contained in the presentation should be read in the context of and with due regard to the more detailed information provided in other documents we file with or furnish to the Securities and Exchange Commission, including, but not limited to, our annual report on Form 10-K for the year ended December 31, 2007 and our quarterly report on Form 10-Q for the quarter ended September 30, 2008.

In accordance with General Instruction B.2. of Form 8-K, the information in this Current Report on Form 8-K, including the attached Exhibit 99.1, shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, and shall not be incorporated by reference into any registration statement or other document filed under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits:

| Exhibit No. | Description |
|-------------|-------------------------|
| 99.1 | PowerPoint Presentation |

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: December 9, 2008

By: /s/ Christopher C. Camut
Christopher C. Camut
Chief Financial Officer

December 2008



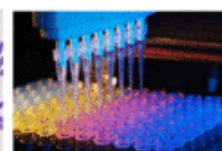
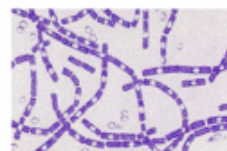
PharmAthene

Dedicated to a safer world

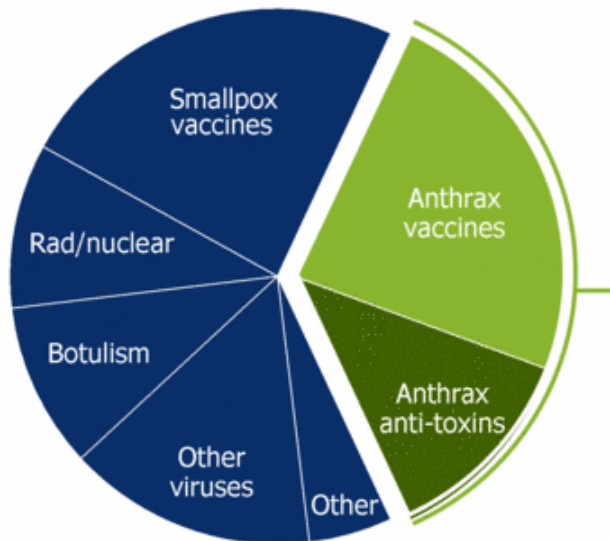
This presentation contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. This information may involve known and unknown risks, uncertainties and other factors that are difficult to predict and may cause the Company's actual results, performance or achievements to be materially different from future results, performance or achievements expressed or implied by any forward-looking statements. Forward-looking statements, which involve assumptions and describe management's current expectations regarding the Company's future plans, strategies and objectives, 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 future government contract awards, potential payments under government contracts, potential regulatory approvals, future product advancements, anticipated financial results and expected benefits of the acquisition of Avecia Vaccines. These forward-looking statements are based on assumptions that may be incorrect, and we cannot assure you that the projections included in these forward-looking statements will come to pass. The Company's actual results could differ materially from those expressed or implied by the forward-looking statements as a result of various factors, including, but not limited to the "Risk Factors" included in the Company's annual report on Form 10-K and other reports filed with the SEC.

Investment Highlights

- Penetrating multi-billion dollar global biodefense market
- Building highly competitive portfolio of next generation products
- Pursuing focused acquisition strategy with significant revenue opportunities
- Demonstrating strong track record obtaining significant government funding



Project BioShield: \$5.6B Market Opportunity

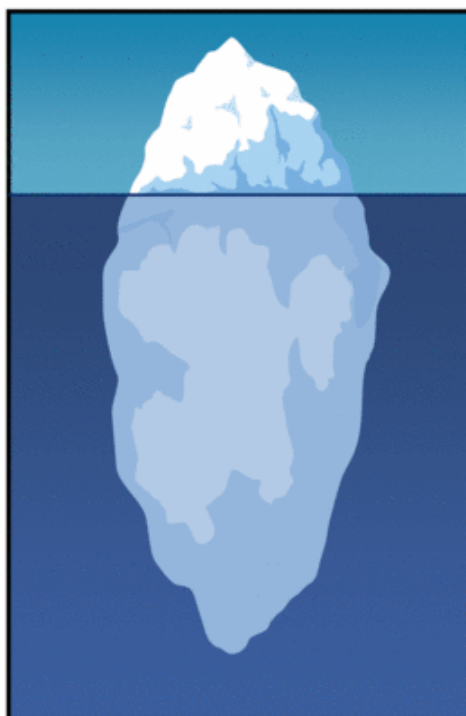


Total anthrax share 36% or \$2B opportunity targeted by PharmAthene



⁴ Source: HHS Public Health Emergency Medical Countermeasure Enterprise Implementation Plan; BioShield contracts awarded

Opportunities Beyond Project BioShield



Project BioShield funding is only the tip of the iceberg **\$5.6B**

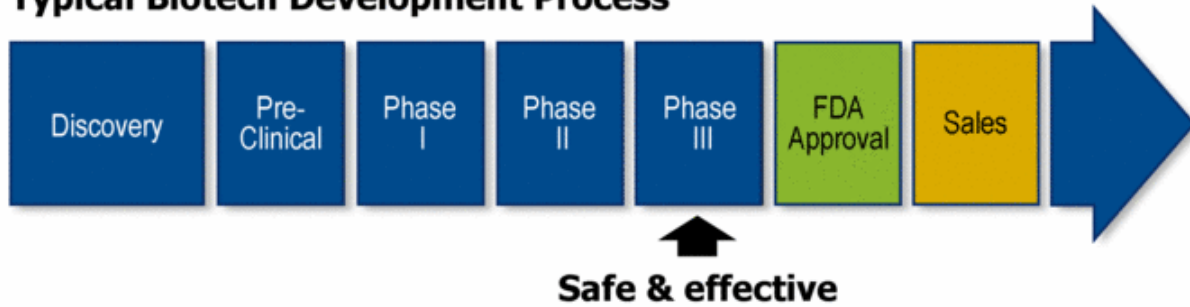
Actively pursuing additional markets:

| | |
|---------------------------------------|-------|
| Department of Defense purchases | \$5B |
| International purchases | \$6B |
| Commercial purchases | \$1B |
| Fortune 500 companies | |
| Leasing opportunities | |
| Execution of DHHS Implementation Plan | \$35B |

Total biodefense market opportunity ~\$50B

⁵ Source: MedaCorp Reports *Chemical & Biological Defense Program – Oct 2005; DHHS Implementation Plan; Company Estimates through 2018

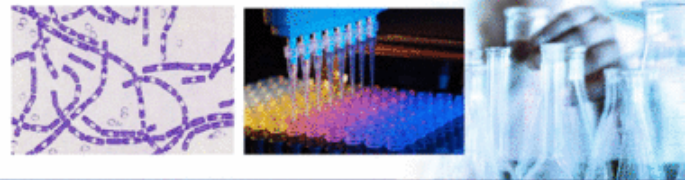
Typical Biotech Development Process



Biodefense Development Process



- Focus
 - Biodefense market
- Experience
 - Identifying high-priority government needs
 - Identifying and acquiring best-in-class products
 - Collaborating with government to develop and commercialize products
- Success
 - Up to \$554MM* in contracts and funding awarded to date
 - Partner of choice for biodefense



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**If all milestones are met and options exercised by government*

Executive Leadership

Senior Officers:

David P. Wright
President & Chief Executive Officer

Christopher C. Camut
Chief Financial Officer

Francesca Cook
VP, Policy & Government Affairs

Wayne Morges, PhD
VP, Regulatory Affairs & Quality

Eric I. Richman
SVP, Bus. Dev. & Strategic Planning

Valerie Riddle, MD, FACP
VP and Medical Director

Joan Fusco, PhD
SVP, Operations

Jordan Karp, JD
SVP, General Counsel

Previous Affiliations:

MedImmune, Guilford, GenVec, Smith-Kline & French, G.D. Searle, Glaxo

RecoverCare, Wachovia, Alex Brown & Sons

Guilford, Covance, US Senate, DHHS

Baxter Healthcare, Merck

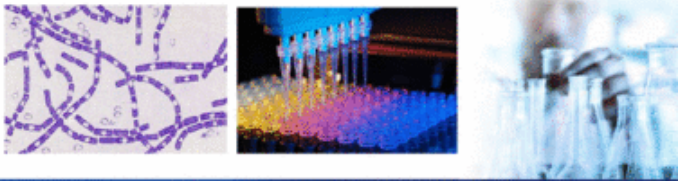
MedImmune, HealthCare Ventures

MedImmune, Guilford, Washington Hospital

Acambis, Baxter Healthcare

Guilford, Constellation Energy, Mentor, MCI

- Penetrating multi-billion dollar global biodefense market
- Building highly competitive portfolio of next generation products
- Pursuing focused acquisition strategy with significant revenue opportunities
- Demonstrating strong track record obtaining significant government funding

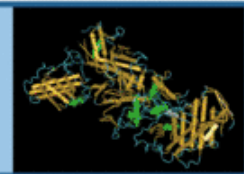


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Best-in-Class Portfolio

1

rPA Anthrax Vaccine
SparVax™



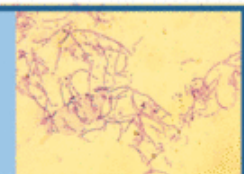
2

3rd Generation
rPA Anthrax Vaccine



3

Anthrax Anti-Toxin
Valortim®

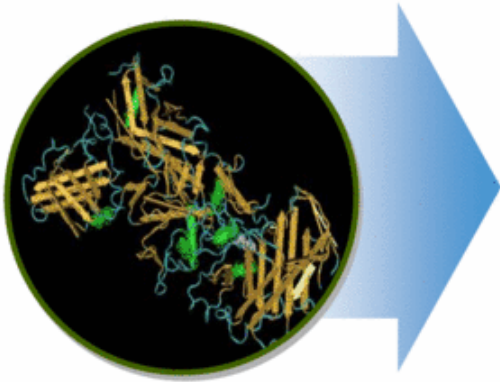


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Nerve Agent Prophylaxis
Protexia®



Recombinant Protective Antigen (rPA) anthrax vaccine



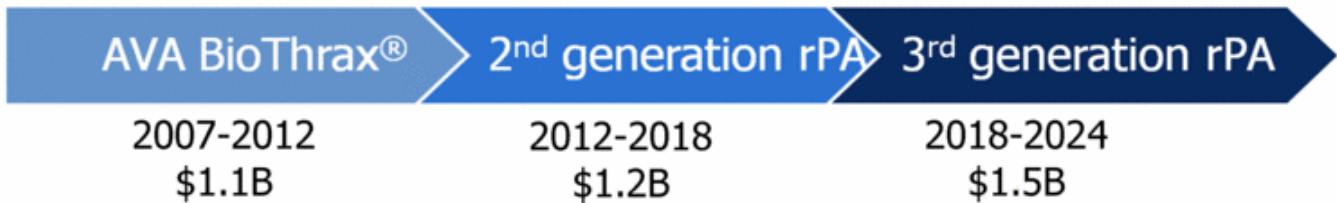
Characteristics

- Highly purified recombinant version of Protective Antigen
- Produces vaccine-induced antibody response comparable to current licensed vaccine

Advantages

- 3 dose intramuscular regimen vs 6 dose subcutaneous for BioThrax®
- Improved consistency
- Completed Ph II testing in 770 individuals; safe & well tolerated

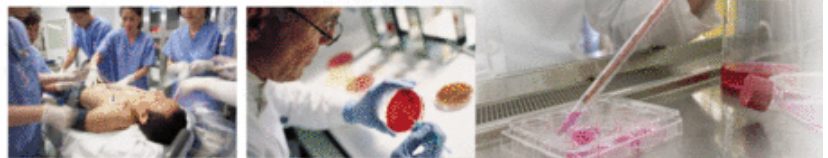
- rPA Anthrax Vaccine Opportunity
 - Initial DHHS procurement contract (rPA vaccine): 25MM doses
 - Potential market opportunity in RFP: \$350MM - \$600MM
- Worldwide Anthrax Vaccine Market



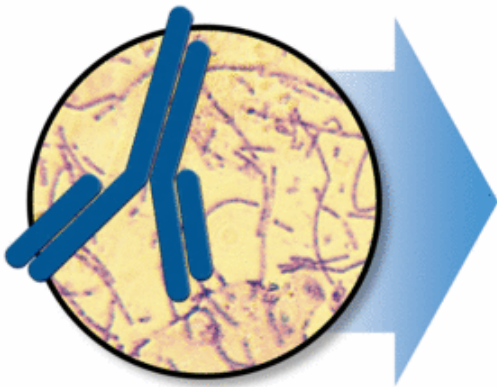
12 *Source: analyst reports; company estimates*

3rd Generation rPA Anthrax Vaccine

- Government Requirement
 - Develop 3rd generation rPA-based anthrax vaccine with
 - Enhanced stability – maintain stability for 3 years at 35°C
 - Improved potency – induce protective immunity in 2 or fewer doses
- PharmAthene's 3rd generation product
 - Room temperature stable with enhanced immunogenicity
 - Grant and contract funding of up to \$97.9M awarded from NIH
 - Awarded NIH development contract 9/26/08 for up to \$83.9M
- PharmAthene Goal
 - Capture significant market share in both 2nd and 3rd generation vaccine market



Fully human monoclonal antibody (MAb) with a unique mechanism of action



Characteristics

- Fully human monoclonal antibody (MAb)
- Potent anthrax toxin neutralizing activity
- Mechanism of action appears similar to natural immune response

Advantages

- Capable of neutralizing both free and cell-bound anthrax toxin
- Efficacious as both prophylaxis and therapy
- Potential sporicidal activity
- Provides significant, sustained protection to monkeys with a single dose

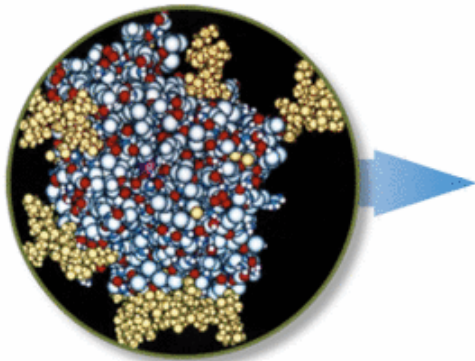
Valortim® - Impressive Data Package

- Initial Phase I in humans complete; no SAE's attributed to Valortim®
- Multiple animal studies have demonstrated efficacy

| | Animal | Time to Treatment | Survival |
|-------------|------------|-----------------------|----------|
| Prophylaxis | Rabbits | 1 hr post-exposure | 85% |
| Prophylaxis | Monkeys | 1 hr post-exposure | 100% |
| Treatment | Rabbits | 24 hrs post-exposure | 88% |
| Treatment | Rabbits | 48 hrs post-exposure | 42% |
| Treatment | AG Monkeys | At time of ECL for PA | 56% |
| Control | All Above | All Above | 0% |

- Current options are inadequate
 - Antibiotics are ineffective
 - Vaccines are inappropriate for treatment
- USG requirements established for anti-toxins
 - DHS Material Threat Assessment: 200,000 treatments
 - DHHS procurements to date under 2004 RFP requirement
 - HGSI – 20,000 doses; \$8,260 cost/dose
 - Cangene – 10,000 doses; \$14,383 cost/dose
- Valortim[®] is well positioned for procurement
 - USG funding awarded to date ~\$24MM

Recombinant human BChE (Butyrylcholinesterase)



Mimics natural
"bioscavenger"

Characteristics

- Novel recombinant form of naturally occurring bioscavenger protein
- Produced using innovative transgenic manufacturing platform

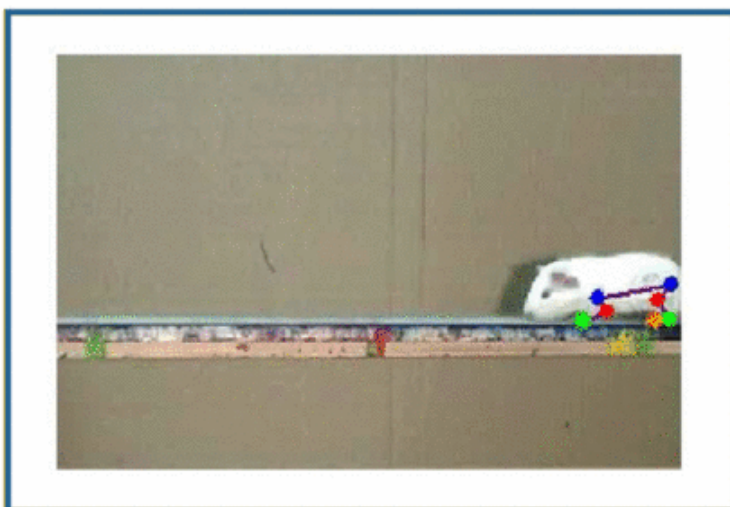
Advantages Over Standard of Care

- Protection pre- and post-exposure
- Protection against broad spectrum of nerve agents
- Superior efficacy to standard of care
- No observable neurological deficits

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Conventional Treatment Does Not Prevent Neurological Toxicity

Conventional Treatment



Guinea pig exposed to *only* 1.5 x LD₅₀ Soman and immediately given the conventional treatment of atropine / 2-PAM / Diazepam

- Only 50% of those exposed survived
- Severe neurological deficits

Only Protexia® Provides Superior Survival and Prevents Neurological Toxicity



Protexia® Solution



Guinea pig pretreated with Protexia® and then 18 hours later exposed to 5.5x LD₅₀ of Soman

- 100% survival rate
- No neurological deficits

19 *Source of the film: U.S. Army Medical Research Institute of Chemical Defense*

Nerve Agents - Market Opportunity

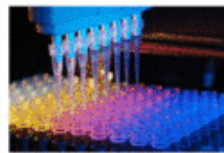
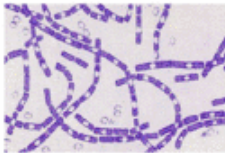


- Department of Defense advanced development procurement contract
 - Total value of up to \$219MM*
 - \$106MM in development funding
 - \$113MM for procurement of initial 90,000 doses
- Additional opportunity for civilian (SNS); ex-US military & civilian commercial purchases
- Phase I clinical trial commenced Oct 08
- Expanding applications to non-biodefense markets
 - Alzheimer's disease



20 **If all milestones are met and options exercised by the USG.*

- Penetrating multi-billion dollar global biodefense market
- Building highly competitive portfolio of *next generation* products
- Pursuing focused acquisition strategy with significant revenue opportunities
- Demonstrating strong track record obtaining significant government contracts



Unparalleled Track Record in this Sector



Diversified biodefense portfolio

5 products

Significant DoD contract for Protexia®

up to \$219M*

NIH contract for 3rd generation anthrax vaccine

up to \$83.9M*

Advanced development funding for Valortim®

up to \$24M*

Total vaccines government funding to date

up to \$310M*

Total biodefense government funding to date

up to \$554M**

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**If all milestones are met and options exercised by government
**Includes amounts not set forth above*

Clear Roadmap to Create Value



- 1 Continue to obtain procurement contracts and increase revenues
- 2 Expand portfolio through strategic acquisitions
- 3 Develop multiple government users and non-government customers
- 4 Develop and position products for commercial uses



Key 2009-10 Value Creation Events

| | 2009 | | 2010 | |
|---|------|----|------|----|
| | H1 | H2 | H1 | H2 |
| Potential SparVax™ procurement contract – 25M doses | ■ | | | |
| Complete Valortim® initial dose-ranging study (AGM) | ■ | | | |
| Complete Protexia® proof-of-concept therapeutic studies | | ■ | | |
| Potential for Valortim® advanced development funding | | ■ | | |
| Begin Valortim® Phase I clinical trial with antibiotics | | ■ | | |
| Complete Protexia® Phase I clinical trial | | ■ | | |
| Potential for DoD Protexia® contract extension - \$65MM | | | ■ | |
| Complete SparVax™ consistency lots | | | | ■ |

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Investment Highlights

- Large and growing market
 - *Urgent requirements, multi-billion dollar market*
- Experienced management team
 - *Previous long-term working relationships with strong execution skills*
- Successful execution of growth strategy
 - *Advancing four best-in-class, next-generation products*
- Solid track record validates our approach
 - *Potential government funding/contracts of up to \$554MM* to date*
- Clear roadmap for success and value creation



December 2008



PharmAthene

Dedicated to a safer world