# 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): July 23, 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)
- 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 7.01. Regulation FD Disclosure.

We are furnishing as an exhibit to this report a PowerPoint presentation that representatives of PharmAthene, Inc. (the "Company") will 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 filed with or furnished 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 March 31, 2008.

Item	9.01.	Financial Statements and Exhibits.		
(d)	Exhibits:			
Exhibit No.			Description	
	99.1	PowerPoint Presentation		

#### **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.

Date: July 22, 2008

By: /s/ David P. Wright

David P. Wright

President and Chief Executive Officer

### PharmAthene Investor Presentation





### Safe Harbor Statement



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. 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 forwardlooking 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.

### Overview



- 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



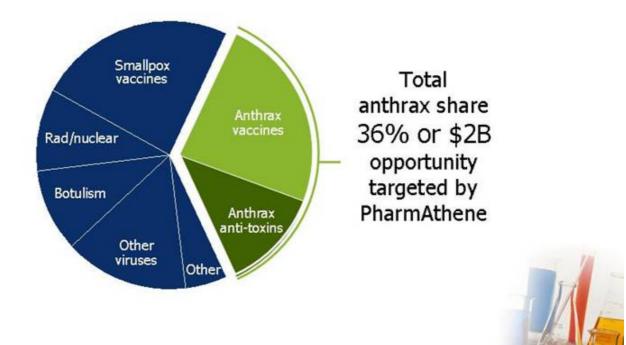




### Penetrating a Multi-Billion Dollar Market



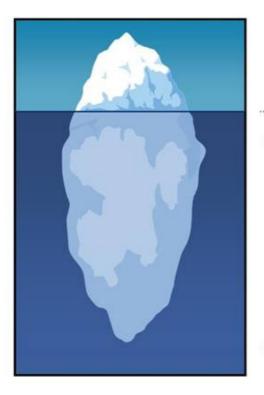
#### Project BioShield: \$5.6B Market Opportunity



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

### Opportunities Beyond Project BioShield





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

#### Actively pursuing additional markets:

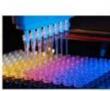
International purchases \$  Commercial purchases \$  Fortune 500 companies  Leasing opportunities	e market opportunity ~\$50E
International purchases \$  Commercial purchases \$  Fortune 500 companies	HHS Implementation Plan \$358
International purchases \$ Commercial purchases \$	ortunities
International purchases \$	companies
	rchases \$18
Department of Defense purchases \$	urchases \$68
	Defense purchases \$58

### PharmAthene's Strategic Advantage



- 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 \$485MM\* in contracts and funding awarded to date
  - Partner of choice for biodefense









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### Best-in-Class Portfolio



2 3rd Generation
rPA Anthrax Vaccine

3rd Generation
rPA Anthrax Vaccine

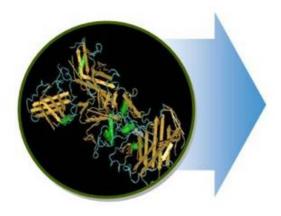
3 Anthrax Anti-Toxin
Valortim®

Nerve Agent Prophylaxis
Protexia®

### 2<sup>nd</sup> Generation rPA Anthrax Vaccine



#### 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 AVA (BioThrax®)
- Enhanced stability
- Completed Ph II testing in >700 individuals; safe & well tolerated

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### **Anthrax Vaccines Market Opportunity**



- rPA Anthrax Vaccine Opportunity
  - Initial DHHS procurement contract (rPA vaccine): 25MM doses
  - USG award date in RFP: December 31, 2008
  - Potential market opportunity in RFP: \$350MM \$600MM
- Worldwide Anthrax Vaccine Market

AVA BioThrax®	2 <sup>nd</sup> generation rPA	3 <sup>rd</sup> generation rPA
2007-2012	2012-2018	2018-2024
\$1.1B	\$1.2B	\$1.5B

# Best-in-Class Portfolio



1	2 <sup>nd</sup> Generation rPA Anthrax Vaccine	
2	3 <sup>rd</sup> Generation rPA Anthrax Vaccine	
3	Anthrax Anti-Toxin Valortim®	
4	Nerve Agent Prophylaxis Protexia®	

### 3rd Generation rPA Anthrax Vaccine



#### Government Requirement

- Develop 3<sup>rd</sup> 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 3<sup>rd</sup> generation product

- Room temperature stable with enhanced immunogenicity
- Program funded \$7MM to date by NIH
- USG award date in RFP, September 2008

#### PharmAthene Goal

Capture significant market share in both 2<sup>nd</sup> and 3<sup>rd</sup> generation vaccine market







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### Best-in-Class Portfolio

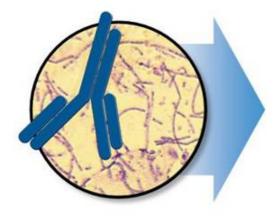


1	2 <sup>nd</sup> Generation rPA Anthrax Vaccine	
2	3 <sup>rd</sup> Generation rPA Anthrax Vaccine	
3	Anthrax Anti-Toxin Valortim®	
4	Nerve Agent Prophylaxis Protexia®	

### Valortim®- Anthrax Anti-Toxin



#### 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

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### 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%

# Anthrax Anti-Toxins Market Opportunity



- · 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
    - HGSI 20,000 doses; \$8,260 cost/dose
    - Cangene 10,000 doses; \$14,383 cost/dose
- Valortim<sup>®</sup> is well positioned for procurement
  - USG funding awarded to date ~\$25MM



2 3rd Generation
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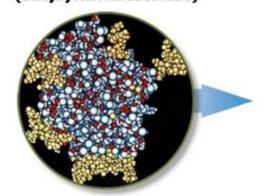
Nerve Agent Prophylaxis
Protexia®

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# Protexia® – Nerve Agent Prophylaxis



# Recombinant human BChE (Butyrylcholinesterase)



Mimics natural "bioscavenger"

#### Characteristics

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

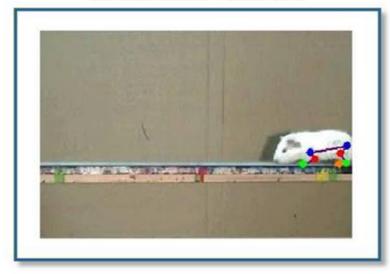
#### **Advantages Over Standard of Care**

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

### Conventional Treatment Does Not Prevent Neurological Toxicity



#### **Conventional Treatment**



Guinea pig exposed to *only* 1.5 x LD<sub>50</sub> Soman and immediately given the conventional treatment of atropine / 2-PAM / Diazapam

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

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

# 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 LD<sub>50</sub> of Soman

- 100% survival rate
- No neurological deficits

### Nerve Agents - Market Opportunity



- · Department of Defense Award
  - Awarded DoD advanced development and procurement contract
  - Total original potential value of up to \$213MM\*
    - · \$100MM in development funding
    - \$113MM for procurement of initial 90,000 doses
  - Total revised contract value of up to \$219MM\*; \$5.8MM in additional funding for ongoing development
- Additional opportunity for civilian (SNS); ex-US military & civilian; commercial purchases
- Expanding applications to non-biodefense markets
  - Alzheimer's disease







# Overview



- · Penetrating multi-billion dollar global biodefense market
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### Unparalleled Track Record in Biodefense



Established strong biodefense portfolio	Building
Significant DoD contract (Protexia®)	up to \$219MM*
Advanced development funding for Valortim®	\$25MM
Includes major NIAID/BARDA contract	\$14MM
Total biodefense vaccines government funding	up to \$220MM*
Total amounts under all Government contracts**	up to \$485MM*

### Clear Roadmap to Create Value



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

### The Financial Resources to Fund Growth



- Strong cash position
  - \$45.7MM at March 31, 2008
    - > less: \$10MM paid to Avecia at closing (4-2-08)
    - > Includes \$17MM restricted cash and \$18.7MM available cash (4-2-08)
- Comparatively low cash burn rate
  - Net ~\$1-2MM month, \$4-5MM gross
  - Majority of program development funded with Government grants/contracts
- · Substantial ongoing & potential funding contract and grant support
  - Approximately \$60MM development funding for 2<sup>nd</sup> generation rPA vaccine program
  - Opportunity for 3<sup>rd</sup> generation rPA development contract greater than \$75MM
- · Sizeable near-term potential development and procurement contracts\*
  - Protexia® procurement contract awarded 2006; up to \$219MM
  - rPA anthrax vaccine procurement contract for 25MM doses: \$350-\$600MM





# Key 2008-09 Value Creation Events



Million

	2008 H1 H2		2009 H1 H2	
Completed strategic acquisition				
Completed Valortim® manufacturing scale up				
Potential \$75MM 3 <sup>rd</sup> gen rPA development contract				
File Protexia® IND				
Begin Protexia® Phase I clinical trial				
Potential 2 <sup>nd</sup> gen rPA vaccine procurement contract				
Report Protexia® Phase I results				
Potential to begin 2nd phase Protexia® DoD contract (\$64.5MM)				
Potential advanced funding for anthrax anti-toxin				

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### Summary



- · The market need clearly exists
  - Critical requirements, multi-billion dollar market
- PharmAthene is positioned for success
  - Advancing three best-in-class, next-generation products
- Strong track record validates our approach
  - Potential government funding/contracts of up to \$485MM to date
- · Clear roadmap for success and value creation







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