CER Report

NYSE Amex: PIP

Update

May 13, 2010

PHARMATHENE, INC.

Biotechnology; Biodefense

PharmAthene is an early stage biopharmaceutical company engaged in the development and commercialization of vaccines and therapeutics for use against toxins that are potential agents of bioterrorism. The Company's second generation anthrax vaccine, SparVax, *is a candidate for the U.S. Strategic National Stockpile established in 2004. PharmAthene is headquartered in Annapolis, MD and maintains a web site presence at www.pharmathene.com.*

Rating:	**Speculative Buy** (Unchanged)
Recent Price:	**$1.40** (5/12/10)
Price Target:	**$3.50** (Unchanged)

MARKET DATA

52-Week High/Low	$4.31 - $1.13
Ave. Daily Volume (6-mos.)	232 K
Shares Outstanding	28.4 M
Inside Ownership	21.8%
Institutional Ownership	10%
Float	22.2 M
Short Interest (% of float)	1.4%

FINANCIAL DATA

Market Capitalization	$39.8 M
- Cash & Equivalents	$ 0.8 M
+ Long-term Debt	$18.3 M
Enterprise Value	$57.3 M
Book Value (Deficit)	($5.2) M
Working Capital	$4.0 M
Dividend Yield	Nil

Pro Forma balance sheet figures as of 3/31/10

	SALES	NET	CFO	PSL
2007A	$14.6	($17.7)	($13.6)	($1.88)
2008A	$32.9	($36.4)	($13.2)	($1.59)
2009A	$27.6	($32.3)	*($29.0)E*	($1.17)
1Q10A	$ 3.1	($ 7.9)	($ 5.0)	($0.28)
2Q10E	*$ 7.5*	*($ 7.0)*		*($0.24)*
3Q10E	*$ 7.5*	*($ 7.0)*		*($0.24)*
4Q10E	*$ 7.5*	*($ 7.0)*		*($0.24)*
2010E	*$25.6*	*($28.9)*	*($20.0)*	*($1.00)*

Dollars in millions, except EPS; Fiscal year ends Dec.

VALUATION

Price/Sales	1.5 X
Price/CFO	Neg
Price/Trailing 12-mo. Earnings	Neg
Price/Book Value	Neg
Consensus EPS Estimate 2010	($0.54)
Forward PE	Neg
Consensus EPS Estimate 2011	($0.47)
Forward PE	NA

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HIGHLIGHTS

- **Balance Sheet.** Many investors might view PharmAthene's balance sheet at the end of March 2010 as unduly thin with a cash balance of $835,000 and working capital of $4.0 million. Three funding sources for development work valued between $375 million and $400 million are pending.

- **Anticipated Cash Flows.** During the conference call management indicated that collections on accounts receivable are expected to return to normal levels, leading to an inflow of cash during the June quarter.

- **3G Anthrax Candidate.** The NIAID notified PharmAthene a development contract supporting third generation anthrax vaccine is subject to possible termination. Operating expenses included a $588,000 charge for a doubtful account allowance for unpaid billings under the contract.

- **Earnings Model.** Our earnings model has been updated to reflect first quarter 2010 results. We made no other changes to our sales or expense assumptions for the balance of the year. Our model represents one scenario for the pace of development work principally on *SparVax*, *Valortim* and *Protexia*.

- **Rating and Price Target.** Our speculative buy rating is unchanged as is our price target of $3.50. We continue to view the PharmAthene portfolio of biodefense vaccine and drug candidates as undervalued despite the seemingly slow pace of progress and concerns about the 3G anthrax vaccine effort.

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OUTLOOK

PharmAthene's stock price fell through the trading range we expected for the stock. The retreat to 52-week lows has been a disappointment, particularly since PharmAthene continues to report development progress with the Company's primary biodefense candidates - *SparVax* (second generation anthrax vaccine), *Protexia* (nerve agent exposure antidote) and *Valortim* (anthrax exposure treatment). That said, the pace of progress has been fraught with delays and obstacles that have weighed on investor confidence and patience.

Our speculative buy rating is unchanged as is our price target of $3.50. We continue to view the PharmAthene portfolio of intellectual property as undervalued despite the seemingly slow pace of progress and an apparent disappointment with the 3G anthrax vaccine contract with the NIAID. We believe the Company's three primary compounds - *SparVax*, *Protexia* and *Valortim* - remain viable for military and government biodefense procurement. We expect continued pressure on the PIP price until the Company can report substantive forward movement on at least one of these three candidates.

RECENT DEVELOPMENTS

Third-Generation Anthrax Vaccine

Although a lesser element of the Company's biodefense drug candidate portfolio, PharmAthene appears to have stubbed its toes on its third-generation rPA anthrax vaccine. During the earnings conference call management disclosed that late last month NIAID (National Institute of Allergy and Infectious Disease) notified PharmAthene a development contract awarded in September 2008, is subject to termination. The NIAID had previously notified PharmAthene of their concerns regarding performance and noted project delays and contract management as issues. PharmAthene had responded with a revised development timetable among other changes. A resolution is expected in the near-term.

First quarter results included a charge of $588,000 as an allowance for doubtful accounts should the contract be terminated. The original award of $13.2 million was made in September 2008. PharmAthene had recognized $1.6 million as revenue through the end of March 2010. Thus the doubtful account allowance provides for the possible non-payment of billings for approximately half of revenue recognized under the 3G rPA program. No other charges to intellectual property or goodwill are expected.

During the call investors heard the Company's most recent addition to the management team, Dr. Thomas Fuerst, described his motivation in joining PharmAthene. As Chief Scientific Officer, Fuerst will set strategic and scientific direction for the Company. Fuerst touched on new development pursuits that could meet federal government requirements for next-generation anthrax vaccine that the current 3G rPA candidate has not met. As impressive as Fuerst is as a leader in biodefense, it remains to be seen whether he can reignite PharmAthene's advanced anthrax vaccine development work enough to make up for what appears to be a material disappointment on the 3G rPA anthrax vaccine effort.

Funding Bids/Applications

Many investors might view PharmAthene's balance sheet at the end of March 2010 as unduly thin with a cash balance of $835,000 and working capital of $4.0 million. Three funding sources for development work valued between $375 million and $400 million are pending final decisions. Acting CEO Eric Richman expressed confidence that PharmAthene could receive favorable decisions in each case.

A decision is expected mid-June from BARDA (Biomedical Advanced Research and Development Authority) regarding a disputed contract modification valued at $78.0 million. An unnamed competitor filed a protest within weeks after BARDA modified an existing development contract with PharmAthene to advance work on *SparVax* second generation anthrax vaccine. Management has met with the GAO (General Accounting Administration) to answer questions. While such protests are apparently not without precedent, few have been upheld and management continues to express confidence that the contract modification will be reinstated. In the meantime, work on *SparVax* remains on the front burner, supported by an existing contract that is unaffected by the protest and provides funding through June 2011.

PharmAthene is in discussion with the DOD (Department of Defense) for a contract modification that could provide a supplemental $4.1 million in funding to support work on *Protexia,* including support of rBChE materials production at the Company's farm in Canada. In late 2009 PharmAthene successfully reached the so-called Milestone B, a part of an existing multi-year development and procurement contract with the DOD for *Protexia*. The achievement triggered a DOD decision on an option valued at $65.0 million for additional development work. Since then PharmAthene has been in negotiation with the DOD for an increase in funding under the Milestone B option to as much as $100 million. We believe an award of supplemental funding for *Protexia* augers well for a favorable outcome in these negotiations. The award would put work on *Protexia* back into high gear and would contribute to 2010 development revenue.

Two additional longer-term funding bids remain outstanding that could bring in an additional $200 million in development contracts over the next five years. PharmAthene has applied for funding to support development of its second generation anthrax vaccine *SparVax* under a BAA (Broad Agency Announcement) issued in February 2010 by BARDA. A decision is expected before the end of the current year. Work on *SparVax* is ongoing under an existing contract that provides support through June 2011.

An additional $100 million could be awarded to PharmAthene under a separate BAA that would support work on *Valortim*. Mid-2009 the Company had been in negotiation with BARDA related to this award when allergic-like reactions were recorded in a clinical trial using *Valortim* in combination with Cipro, an antibiotic used for anthrax infection. The clinical trial was terminated and negotiations for the additional funding were suspended pending an investigation of the trial events. Since then PharmAthene scientists have been comparing previous successful studies of *Valortim* with the more recent study involving the *Valortim*-Cipro combination for differences in materials quality and handling among other factors. Additional work is needed to fully evaluate other elements of the study such as the rate of infusion and proper classification of reactions as allergic. Conclusions of PharmAthene's investigation with be submitted first to a monitoring committee and then to the FDA (Federal Drug Administration).

The Company remains confident that work on *Valortim* can be resumed once the *Valortim*-Cipro combination is fully understood. There is no time certain for an FDA go-ahead. However, once received, we expect BARDA to come back to the table on the pending BAA funding negotiation.

Balance Sheet Resources

Investors concerned about adequate capital resources and jaded from the wait for funding decisions should get reassurance from anticipated working capital changes during the second quarter. During the conference call management indicated that accounts receivable are expected to return to normal levels, leading to an inflow of cash during the June quarter. At the end of March 2010, the Company had $9.2 million and $7.7 million in billed and unbilled receivables, respectively. We estimate successful collection and billing could provide sufficient resources to support operations through the anticipated near-term funding decisions noted above.

FIRST QUARTER 2010 HIGHLIGHTS

PharmAthene reported $3.1 million in revenue during the first quarter 2010, principally from development contracts for the Company's *SparVax* and *Valortim* candidates. Operating expenses totaled $10.5 million, including a charge of $588,000 as an allowance for doubtful accounts related to a possible winddown of a contract with the NIAID for work on a third-generation anthrax vaccine. Net loss for the quarter was $7.9 million or $0.28 per share.

PharmAthene used approximately $5.0 million in cash during the quarter to support operations. Cash declined to $835,000 at the end of March 2010 and working capital was reduced to $4.0 million. The Company held $9.2 million and $7.7 million in billed and unbilled receivables, respectively. Long-term debt totaled $18.3 million.

UPDATED EARNINGS MODEL

Our earnings model has been updated to reflect first quarter 2010 results. We made no other changes to our sales or expense assumptions for the balance of the year or to our estimates for 2011. Our model represents one scenario for the pace of development work principally on *SparVax*, *Valortim* and *Protexia*. A number of factors could bring in actual results above or below our estimates. Ongoing development contract work on *SparVax* under the remaining activity contract might not support our estimate for $7.5 million in each of the next three quarters. A favorable decision by BARDA regarding the protested contract modification could accelerate *SparVax* activity and billings. Contracted work on *Protexia* has been completed, but if the DOD is timely in approving contract modifications that would make $4.1 million available to support *Protexia* work yet in the June quarter.

We estimate the Company could use approximately $20 million in cash during the year. Cash usage in the first quarter of approximately $5.0 million appears to validate our estimate. We note that the Company expects favorable working capital changes during the June quarter that could support operations through the end of the June quarter and through the contract decisions discussed above that are expected yet in 2010.

Management Guidance

Management offered guidance for cash flow breakeven results in the coming year if the Company is successful in receiving all three of the pending funding awards for *SparVax* ($100 million under BAA), *Protexia* ($100 milion under negotiated Milestone B award) and *Valortim* ($100 million in pending BAA). The three awards could generate development revenue in the range of $80 million to $100 million. Our estimates for 2011 illustrate the lower end of management's guided range, producing a net loss for the year. We acknowledge that our assumption for research and development expense may be unduly conservative, generating an unnecessarily high loss.

VALUATION

PharmAthene's stock price fell through the trading range we expected for the stock. We believe this is due in part of overall conditions in the U.S. equity market. However, the slow pace of fundamental developments and the various obstacles and setbacks have been the primary drags on the PIP price. The retreat to 52-week lows has been a disappointment, particularly since PharmAthene continues to report development progress with the Company's lead biodefense candidates *SparVax and Protexia.* Even though the *Valortim* effort has been halted pending an investigation of its use with other antibiotics, early study results suggest *Valortim* is a viable biodefense candidate..

We continue to view the portfolio of biodefense vaccine and drug candidates as undervalued at the current stock price, even with the difficulties related to next-generation anthrax vaccine development. That said, we believe the outcome of the 3G rPA anthrax vaccine contract and the initiation of a new approach to next-generation anthrax vaccine is a key element of PharmAthene's valuation. Our view is that in the long-term the Company's ability to meet government requirements for drug candidate performance and quality is a must to be a player in the biodefense field. Thus we view any announcement of program success as fuel for investor confidence and a strong catalyst for re-valuation of PIP.

A wild card in PharmAthene's value is a pending lawsuit against Siga Technologies (SIGA: Nasdaq) related to ST-246, a small pox vaccine. PharmAthene is suing for license rights to the compound that is a candidate for the National Strategic Stockpile. Discovery has been completed in the matter and a ruling from the presiding judge is expected in June or July 2010 on Siga's motion for summary judgment. If the motion is denied, a trial date would be set for late 2010. A favorable outcome for PharmAthene could result in a substantial payment for damages, which would in turn reduce the apparent discount on PIP value related to concerns for capital adequacy. PharmAthene management maintains its case is strong, suggesting that a denial of Siga's motion and the establishment of a trial date could be an important cue for investors.

Although valuation exercises based on the possible procurement contracts yields a higher valuation, we set our price target at $3.50. This corresponds to a level we believe represents appreciable price resistance set in historic trading sessions. We believe the stock may also experience resistance near the $2.00 to $2.25 price levels. However, we believe favorable news on either of the near-term funding decisions for *SparVax* ($78.0 million) or *Protexia ($4.1 million)* programs could lead the stock through this range.

Exhibit I: PIP Stock Chart

Source: StockCharts.com

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST

Table I: Historical and Projected Sales and Expenses

Dollars in Thousands	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	*2Q10E*	*3Q10E*	*4Q10E*	*2010E*	*2011E*
Total revenue	32,911	5,522	8,071	6,830	7,127	27,550	3,117	*7,500*	*7,500*	*7,500*	*25,617*	*80,000*
Operating expenses:												
General & administrative	19,398	5,695	4,416	6,225	5,062	21,398	5,326	*5,625*	*5,625*	*5,625*	*22,201*	*25,000*
Research & development	31,812	5,147	9,465	7,610	7,998	30,220	4,952	*7,875*	*7,875*	*7,875*	*28,577*	*72,000*
Depreciation & amortization	814	192	199	247	234	872	245	*250*	*250*	*250*	*995*	*1,000*
Other	16,131	-	761	274	-	1,035	-	-	-	-	-	-
Total operating expenses	68,155	11,034	14,841	14,356	13,294	53,525	10,523	*13,750*	*13,750*	*13,750*	*51,773*	*98,000*
Operating income (loss)	(35,244)	(5,512)	(6,770)	(7,526)	(6,167)	(25,975)	(7,406)	*(6,250)*	*(6,250)*	*(6,250)*	*(26,156)*	*(18,000)*
Other income (expense)												
Interest income	1,225	104	93	62	10	269	3	*15*	*15*	*15*	*48*	*150*
Interest expense	(2,578)	(602)	(598)	(749)	(888)	(2,837)	(948)	*(716)*	*(716)*	*(716)*	*(3,096)*	*(2,863)*
Other, net	182	(3)	644	(5,750)	1,372	(3,737)	407	-	-	-	*407*	-
Total other income (expense)	(1,171)	(501)	139	(6,437)	494	(6,305)	(538)	*(701)*	*(701)*	*(701)*	*(2,641)*	*(2,713)*
Income (loss) before income taxes	(36,415)	(6,013)	(6,631)	(13,963)	(5,673)	(32,280)	(7,944)	*(6,951)*	*(6,951)*	*(6,951)*	*(28,797)*	*(20,713)*
Net income (loss)	(36,415)	(6,013)	(6,631)	(13,963)	(5,673)	(32,280)	(7,944)	*(6,951)*	*(6,951)*	*(6,951)*	*(28,797)*	*(20,713)*
Accretion relating to preferred stock	-	-	-	-	-	-	-	-	-	-	-	-
Income available to shareholders	(36,415)	(6,013)	(6,631)	(13,963)	(5,673)	(32,280)	(7,944)	*(6,951)*	*(6,951)*	*(6,951)*	*(28,797)*	*(20,713)*
Adjusted income	(20,284)	(6,013)	(5,870)	(13,689)	(5,673)	(31,245)	(7,944)	(6,951)	(6,951)	(6,951)	(28,797)	(20,713)
Net EPS (loss) available to shareholders	$ (1.59)	$ (0.23)	$ (0.24)	$ (0.50)	$ (0.20)	$ (1.17)	$ (0.28)	*$ (0.24)*	*$ (0.24)*	*$ (0.24)*	*$ (1.00)*	*$ (0.71)*
Net EPS (loss), adjusted	$ (0.88)	$ (0.23)	$ (0.21)	$ (0.49)	$ (0.20)	$ (1.13)	$ (0.28)	*$ (0.24)*	*$ (0.24)*	*$ (0.24)*	*$ (1.00)*	*$ (0.71)*
Weighted shares outstanding, diluted	22,943	26,009	28,057	28,077	28,155	27,575	28,173	*29,000*	*29,000*	*29,000*	*28,793*	*29,000*

Source: Company Reports and Crystal Equity Research Estimates

Table II: Selected Measures of Historical and Projected Sales and Expenses

Dollars in Thousands	2008	1Q09	2Q09	3Q09	4Q09	2009	1Q10	2Q10E	3Q10E	4Q10E	2010E	2011E
Total revenue	32,911	5,522	8,071	6,830	7,127	27,550	3,117	7,500	7,500	7,500	25,617	80,000
Operating income (loss)	(35,244)	(5,512)	(6,770)	(7,526)	(6,167)	(25,975)	(7,406)	(6,250)	(6,250)	(6,250)	(26,156)	(18,000)
Income available to shareholders	(36,415)	(6,013)	(6,631)	(13,963)	(5,673)	(32,280)	(7,944)	(6,951)	(6,951)	(6,951)	(28,797)	(20,713)
Adjusted income	(20,284)	(6,013)	(5,870)	(13,689)	(5,673)	(31,245)	(7,944)	(6,951)	(6,951)	(6,951)	(28,797)	(20,713)
Net EPS (loss) available to shareholders	$ (1.59)	$ (0.23)	$ (0.24)	$ (0.50)	$ (0.20)	$ (1.17)	$ (0.28)	$ (0.24)	$ (0.24)	$ (0.24)	$ (1.00)	$ (0.71)
Net EPS (loss), adjusted	$ (0.88)	$ (0.23)	$ (0.21)	$ (0.49)	$ (0.20)	$ (1.13)	$ (0.28)	$ (0.24)	$ (0.24)	$ (0.24)	$ (1.00)	$ (0.71)
Weighted shares outstanding, diluted	22,943	26,009	28,057	28,077	28,155	27,575	28,173	29,000	29,000	29,000	28,793	29,000
SELECTED MEASURES:												
Sales growth, yr/yr	124.7%					-16.2%					-7.0%	212.3%
Net income from cont. oper. growth, yr/yr	168.0%					11.4%					10.8%	28.1%
EPS cont. oper. growth, yr/yr	10.3%					26.2%					14.6%	28.6%
Gross margin	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Operating margin	-107.1%	-99.8%	-83.9%	-110.2%	-86.5%	-94.3%	-237.6%	-83.3%	-83.3%	-83.3%	-102.1%	-22.5%
EBIT margin	-102.8%	-98.0%	-74.7%	-193.5%	-67.1%	-106.9%	-224.4%	-83.1%	-83.1%	-83.1%	-100.3%	-22.3%
Net margin	-110.6%	-108.9%	-82.2%	-204.4%	-79.6%	-117.2%	-254.9%	-92.7%	-92.7%	-92.7%	-112.4%	-25.9%
Direct costs, % sales	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
G&A expense, % sales	58.9%	103.1%	54.7%	91.1%	71.0%	77.7%	170.9%	75.0%	75.0%	75.0%	86.7%	31.3%
R&D expense, % sales	96.7%	93.2%	117.3%	111.4%	112.2%	109.7%	158.9%	105.0%	105.0%	105.0%	111.6%	90.0%
Effective tax rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
EBITDA, $$	(34,431)					(25,135)					(25,156)	(17,000)
EBITDA margin	-104.6%					-91.2%					-98.2%	-21.3%

Source: Company Reports and Crystal Equity Research Estimates

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ANALYST

Debra Fiakas, CFA is a seasoned, credentialed investment professional with a diversified and successful track record as a research analyst and as an investment banker. Her decade-plus career includes solid experience in all aspects of the equity capital markets with particular emphasis on emerging growth companies operating in the technology sectors. Ms. Fiakas is also the principal member of Crystal Equity Research, LLC.

ANALYST CERTIFICATION

The analyst who is primarily responsible for this research and whose name is listed first under Analysts above certifies that: 1) all of the views expressed in this research accurately reflect his or her professional views about any and all of the subject securities or issuers, and 2) no part of any of the analyst's compensation was, is or will be directly or indirectly related to the specific rating expressed by analyst in this research.

CER REPORT RESEARCH UNIVERSE*

Speculative Buy	3	60%	Unproven business model; catalysts exist to generate higher returns
Accumulate	1	20%	Long-term return potential above 10%; near-term catalysts may not exist
Hold	0	0%	Total return potential below 10%; an acceptable long-term holding
Sell	1	20%	Potential return greater than negative 10%; take profits or stem losses
Not Rated	0	0%	No rating
Total	5	100%	

**Research universe categorized by rating only; Crystal Equity Research provides no investment banking services.*

HISTORICAL RECOMMENDATIONS AND TARGET PRICE: PharmAthene, Inc. / PIP

Report	Date	Price	Rating	Target Price
Initial	9/26/08	$1.78	Speculative Buy	$5.35
Update	10/2/08	$2.12	Speculative Buy	$5.35
Update	11/14/08	$0.85	Speculative Buy	$5.35
Update	3/31/09	$2.56	Speculative Buy	$5.35
Update	4/30/09	$2.53	Speculative Buy	$5.35
Update	5/15/09	$2.44	Speculative Buy	$5.35
Update	7/13/09	$2.24	Speculative Buy	$5.35
Update	8/14/09	$2.92	Speculative Buy	$5.35
Update	11/18/09	$3.50	Speculative Buy	$5.35
Update	12/9/09	$1.55	Speculative Buy	$3.50
Update	3/24/10	$1.65	Speculative Buy	$3.50
Update	5/13/10	$1.40	Speculative Buy	$3.50

DISCLOSURES

Name	**Symbol: Exchange**	**Disclosures**
PharmAthene, Inc.	PIP: NYSE Amex	D, E

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A A member or employee of Crystal Equity Research, LLC serves on the board of directors of the company.
B A controlling member of Crystal Equity Research, LLC has a beneficial interest in the common stock of the company.
C A person or persons preparing this report or an immediate family member of the preparer has a beneficial interest in the common stock of the company.
D Crystal Equity Research, LLC received compensation for research coverage from the company or one of its agents. The subscription fee for CER Research Coverage in the amount of $12,500 per year was paid in advance in cash.
E The company has a convertible issue outstanding.
F The securities covered in this report can be optioned.
G The securities covered in this report can be margined.

Crystal Equity Research, LLC received compensation from PharmAthene, Inc. to issue this report.

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