

SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934  
(Amendment No. \_\_)\*

**PharmAthene, Inc.**  
(Name of Issuer)

**Common Stock, \$0.0001 par value per share**  
(Title of Class of Securities)

**42224H104**  
(CUSIP Number)

**Not Applicable \*\***  
(Date of Event which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

Rule 13d-1(b)

Rule 13d-1(c)

Rule 13d-1(d)

\*The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

**\*\* The Reporting Person is voluntarily filing this Schedule 13G as a transition from a Schedule 13D.**

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1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) <b>HealthCare Ventures VII, L.P.</b>	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* <span style="float: right;">(a) <input type="checkbox"/> (b) <input type="checkbox"/></span>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION <b>United States</b>	
<b>NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH</b>	5	SOLE VOTING POWER
	6	SHARED VOTING POWER <b>4,534,055</b>
	7	SOLE DISPOSITIVE POWER
	8	SHARED DISPOSITIVE POWER <b>4,534,055</b>
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON <b>4,534,055</b>	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) <b>9.6%</b>	
12	TYPE OF REPORTING PERSON* <b>PN</b>	

1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) <b>HealthCare Partners VII, L.P.</b>	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* <span style="float: right;">(a) <input type="checkbox"/> (b) <input type="checkbox"/></span>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION <b>United States</b>	
<b>NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH</b>	5	SOLE VOTING POWER
	6	SHARED VOTING POWER <b>4,534,055</b>
	7	SOLE DISPOSITIVE POWER
	8	SHARED DISPOSITIVE POWER <b>4,534,055</b>
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON <b>4,534,055</b>	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* <span style="float: right;"><input type="checkbox"/></span>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) <b>9.6%</b>	
12	TYPE OF REPORTING PERSON* <b>PN</b>	

1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) <b>James H. Cavanaugh, Ph.D.</b>	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* <span style="float: right;">(a) <input type="checkbox"/> (b) <input type="checkbox"/></span>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION <b>United States</b>	
<b>NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH</b>	5	SOLE VOTING POWER <b>72,759</b>
	6	SHARED VOTING POWER <b>4,534,055</b>
	7	SOLE DISPOSITIVE POWER <b>72,759</b>
	8	SHARED DISPOSITIVE POWER <b>4,534,055</b>
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON <b>4,606,814</b>	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* <span style="float: right;"><input type="checkbox"/></span>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) <b>9.8%</b>	
12	TYPE OF REPORTING PERSON* <b>IN</b>	

1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) <b>Christopher Mirabelli, Ph.D.</b>	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* <span style="float: right;">(a) <input type="checkbox"/> (b) <input type="checkbox"/></span>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION <b>United States</b>	
<b>NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH</b>	5	SOLE VOTING POWER
	6	SHARED VOTING POWER <b>4,534,055</b>
	7	SOLE DISPOSITIVE POWER
	8	SHARED DISPOSITIVE POWER <b>4,534,055</b>
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON <b>4,534,055</b>	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) <b>9.6%</b>	
12	TYPE OF REPORTING PERSON* <b>IN</b>	

1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) <b>Harold R. Werner</b>	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* <span style="float: right;">(a) <input type="checkbox"/> (b) <input type="checkbox"/></span>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION <b>United States</b>	
<b>NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH</b>	5	SOLE VOTING POWER <b>1,655</b>
	6	SHARED VOTING POWER <b>4,534,055</b>
	7	SOLE DISPOSITIVE POWER <b>1,655</b>
	8	SHARED DISPOSITIVE POWER <b>4,534,055</b>
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON <b>4,535,710</b>	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* <span style="float: right;"><input type="checkbox"/></span>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) <b>9.6%</b>	
12	TYPE OF REPORTING PERSON* <b>IN</b>	

1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) <b>John W. Littlechild</b>	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* <span style="float: right;">(a) <input type="checkbox"/> (b) <input type="checkbox"/></span>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION <b>United States</b>	
<b>NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH</b>	5	SOLE VOTING POWER
	6	SHARED VOTING POWER <b>4,534,055</b>
	7	SOLE DISPOSITIVE POWER
	8	SHARED DISPOSITIVE POWER <b>4,534,055</b>
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON <b>4,534,055</b>	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* <input type="checkbox"/>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) <b>9.6%</b>	
12	TYPE OF REPORTING PERSON* <b>IN</b>	

1	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) <b>Augustine Lawlor</b>	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* <span style="float: right;">(a) <input type="checkbox"/> (b) <input type="checkbox"/></span>	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION <b>United States</b>	
<b>NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH</b>	5	SOLE VOTING POWER
	6	SHARED VOTING POWER <b>4,534,055</b>
	7	SOLE DISPOSITIVE POWER
	8	SHARED DISPOSITIVE POWER <b>4,534,055</b>
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON <b>4,534,055</b>	
10	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES* <span style="float: right;"><input type="checkbox"/></span>	
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) <b>9.6%</b>	
12	TYPE OF REPORTING PERSON* <b>IN</b>	



**Item 1.**

(a) Name of Issuer

**PharmAthene, Inc.**

(b) Address of Issuer's Principal Executive Offices

**One Park Place, Suite 450  
Annapolis, MD 21401****Item 2.**

(a) Name of Person Filing

**HealthCare Ventures VII, L.P. ("HCVVII")  
HealthCare Partners VII, L.P. ("HCPVII")  
James H. Cavanaugh, Ph.D. ("Cavanaugh")  
Christopher Mirabelli, Ph.D. ("Mirabelli")  
Harold R. Werner ("Werner")  
John W. Littlechild ("Littlechild")  
Augustine Lawlor ("Lawlor")****See attached Exhibit A, which is a copy of their agreement in writing to file this statement on behalf of each of them.**<sup>1</sup>

(b) Address of Principal Business Office or, if none, Residence

**The business address for HCVVII, HCPVII, Dr. Cavanaugh and Mr. Werner is 44 Nassau Street, Princeton, New Jersey 08542. The business address for Dr. Mirabelli and Messrs. Littlechild and Lawlor is 55 Cambridge Parkway, Cambridge, Massachusetts 02142.**

(c) Citizenship

**HCVVII and HCPVII are limited partnerships organized under the laws of the State of Delaware. Drs. Cavanaugh and Mirabelli and Messrs. Werner, Littlechild, and Lawlor are each United States citizens.**

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<sup>1</sup> Drs. Cavanaugh and Mirabelli and Messrs. Werner, Littlechild and Lawlor are the General Partners of HCPVII. HCPVII is the General Partner of HCVVII, the record holder of the securities.

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(d) Title of Class of Securities

**Common Stock, \$0.0001 par value per share (the "Common Stock")**

(e) CUSIP Number

**42224H104**

**Item 3. If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a: NOT APPLICABLE.**

- (a)  Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o).
- (b)  Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c).
- (c)  Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c).
- (d)  Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C 80a-8).
- (e)  An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);
- (f)  An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F);
- (g)  A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G);
- (h)  A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i)  A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);
- (j)  Group, in accordance with §240.13d-1(b)(1)(ii)(J).

**Item 4. Ownership.**

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

(a) Amount beneficially owned:

**As of December 31, 2010: (A) Each of HCVVII and HCPVII, Dr. Mirabelli and Messrs. Littlechild and Lawlor beneficially owned 4,534,055 shares of the Issuer's Common Stock, consisting of (i) 4,253,057 shares of the Issuer's Common Stock owned by HCVVII; and (ii) immediately exercisable warrants to purchase an aggregate of 280,998 shares of the Issuer's Common Stock owned by HCVVII; (B) Dr. Cavanaugh beneficially owned 4,606,814 shares of the Issuer's Common Stock, consisting of (i) 4,253,057 shares of the Issuer's Common Stock owned by HCVVII; (ii) immediately exercisable warrants to purchase an aggregate of 280,998 shares of the Issuer's Common Stock owned by HCVVII; and (iii) immediately exercisable options to purchase an aggregate of 72,759 shares of the Issuer's Common Stock owned by Dr. Cavanaugh; and (C) Mr. Werner beneficially owned 4,535,710 shares of the Issuer's Common Stock, consisting of (i) 4,253,057 shares of the Issuer's Common Stock owned by HCVVII; (ii) immediately exercisable warrants to purchase an aggregate of 280,998 shares of the Issuer's Common Stock owned by HCVVII; and (iii) immediately exercisable options to purchase 1,655 shares of the Issuer's Common Stock owned by Mr. Werner.**

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- (b) Percent of class: (Taking into consideration that 47,034,659 shares of the Issuer's Common Stock are issued and outstanding as of December 30, 2010, which includes the following (i) 40,908,661 shares of the Issuer's Common Stock issued and outstanding as of November 9, 2010 as reported in the Issuer's Form 10-Q filed with the Securities and Exchange Commission on November 15, 2010 for the period ended September 30, 2010; (ii) 280,998 shares of the Issuer's Common Stock underlying the warrants beneficially owned by the Reporting Persons; (iii) an aggregate of 5,845,000 shares of the Issuer's Common Stock issued after November 9, 2010 in connection with the exercise of the over allotment option by Roth Capital Partners, LLC and the conversion of certain notes by certain noteholders to shares of the Issuer's Common Stock as reported on the Issuer's Forms 8-K filed with the Securities and Exchange Commission on each of November 23, 2010 and December 30, 2010).

**As of December 31, 2010: (A) the 4,534,055 shares of the Issuer's Common Stock beneficially owned by HCVVII, HCPVII, Dr. Mirabelli and Messrs. Littlechild and Lawlor constituted 9.6% of the shares outstanding; (B) the 4,606,814 shares of the Issuer's Common Stock beneficially owned by Dr. Cavanaugh constituted 9.7% of the shares outstanding; and (C) the 4,535,710 shares of the Issuer's Common Stock beneficially owned by Mr. Werner constituted 9.6% of the shares outstanding.**

- (c) Number of shares as to which the person has:

- (i) Sole power to vote or to direct the vote –

**Dr. Cavanaugh has the sole power to vote or to direct the vote of the 72,759 shares of the Issuer's Common Stock directly owned by him.**

**Mr. Werner has the sole power to vote or to direct the vote of the 1,655 shares of the Issuer's Common Stock directly owned by him.**

- (ii) Shared power to vote or to direct the vote –

**HCVVII, HCPVII, Drs. Cavanaugh and Mirabelli and Messrs. Werner, Littlechild and Lawlor share the power to vote or direct the vote of the 4,534,055 shares of the Issuer's Common Stock owned by HCVVII.**

- (iii) Sole power to dispose or to direct the disposition of –

**Dr. Cavanaugh has the sole power to dispose or to direct the disposition of the 72,759 shares of the Issuer's Common Stock directly owned by him.**

**Mr. Werner has the sole power to dispose or to direct the disposition of the 1,655 shares of the Issuer's Common Stock directly owned by him.**

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(iv) Shared power to dispose or to direct the disposition of –

**HCVVII, HCPVII, Drs. Cavanaugh and Mirabelli and Messrs. Werner, Littlechild and Lawlor share the power to dispose of or direct the disposition of the 4,534,055 shares owned by HCVVII.**

*Instruction.* For computations regarding securities which represent a right to acquire an underlying security see §240.13d-3(d)(1).

**Item 5. Ownership of Five Percent or Less of a Class.**

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following .

**Item 6. Ownership of More than Five Percent on Behalf of Another Person.**

**Not Applicable**

**Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company.**

**Not Applicable**

**Item 8. Identification and Classification of Members of the Group.**

**Not Applicable**

**Item 9. Notice of Dissolution of Group.**

**Not Applicable**

**Item 10. Certification**

**By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect.**

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**SIGNATURE**

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

January 31, 2011

HealthCare Ventures VII, L.P.  
By: its General Partner, HealthCare Partners VII, L.P.

By:                   /s/ Jeffrey Steinberg                    
Jeffrey Steinberg, Administrative Partner

January 31, 2011

HealthCare Partners VII, L.P.

By:                   /s/ Jeffrey Steinberg                    
Jeffrey Steinberg, Administrative Partner

January 31, 2011

                  /s/Jeffery Steinberg, Attorney-in-Fact                    
James H. Cavanaugh, Ph.D.

January 31, 2011

                  /s/Jeffrey Steinberg, Attorney-in-Fact                    
Christopher Mirabelli, Ph.D.

January 31, 2011

                  /s/Jeffrey Steinberg, Attorney-in-Fact                    
Harold R. Werner

January 31, 2011

                  /s/Jeffrey Steinberg, Attorney-in-Fact                    
John W. Littlechild

January 31, 2011

                  /s/Jeffrey Steinberg, Attorney-in-Fact                    
Augustine Lawlor



**EXHIBIT A  
AGREEMENT  
JOINT FILING OF SCHEDULE 13G**

The undersigned hereby agree to jointly prepare and file with regulatory authorities a Schedule 13G and any future amendments thereto reporting each of the undersigned's ownership of securities of PharmAthene, Inc. and hereby affirm that such Schedule 13G is being filed on behalf of each of the undersigned.

January 31, 2011

HealthCare Ventures VII, L.P.  
By: its General Partner, HealthCare Partners VII, L.P.

By:                   /s/ Jeffrey Steinberg                    
Jeffrey Steinberg, Administrative Partner

January 31, 2011

HealthCare Partners VII, L.P.

By:                   /s/ Jeffrey Steinberg                    
Jeffrey Steinberg, Administrative Partner

January 31, 2011

                  /s/Jeffery Steinberg, Attorney-in-Fact                    
James H. Cavanaugh, Ph.D.

January 31, 2011

                  /s/Jeffrey Steinberg, Attorney-in-Fact                    
Christopher Mirabelli, Ph.D.

January 31, 2011

                  /s/Jeffrey Steinberg, Attorney-in-Fact                    
Harold R. Werner

January 31, 2011

                  /s/Jeffrey Steinberg, Attorney-in-Fact                    
John W. Littlechild

January 31, 2011

                  /s/Jeffrey Steinberg, Attorney-in-Fact                    
Augustine Lawlor

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