

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

PHARMATHENE, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

20-2726770

(I.R.S. Employer
Identification No.)

**One Park Place, Suite 450
Annapolis, MD 21401
(410) 269-2600**

(Address of Principal Executive Offices)

2007 Long-Term Incentive Compensation Plan
(Full title of the plan)

**John Gill
Chief Executive Officer
PharmAthene, Inc.
One Park Place, Suite 450
Annapolis, MD 21401
(410) 269-2600**

(Name, address, including zip code, and telephone number,
including area code, of agent for service)

With a copy to:

**Jeffrey A. Baumel, Esq.
Dentons US LLP
1221 Avenue of the Americas
New York, New York 10020
(212) 768-6700**

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large Accelerated Filer Accelerated Filer Non-Accelerated Filer Smaller Reporting Company

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be registered(1)	Proposed maximum offering price per share	Proposed maximum aggregate offering price	Amount of registration fee(6)
Common Stock, par value \$0.0001 per share	2,709,298(2)	\$2.84(4)	\$7,694,406(4)	\$891.79(4)
Common Stock, par value \$0.0001 per share	3,223,509(3)	\$3.04(5)	\$9,799,467(5)	\$1,135.76(5)
Total	5,932,807			\$2,027.55

(1) Represents additional shares of common stock issuable under the Registrant's 2007 Long-Term Incentive Compensation Plan, as amended on June 13, 2008 (the "Plan"), pursuant to the provisions of the Plan providing for an automatic increase in the number of shares reserved for issuance under the Plan pursuant to an evergreen provision. Pursuant to Rule 416 of the Securities Act of 1933, as amended (the "Securities Act"), the Registrant is also registering hereunder an indeterminate number of additional shares of common stock that shall be issuable to prevent dilution resulting from stock splits, stock dividends or similar transactions.

(2) Represents additional shares of common stock issuable under the Plan upon exercise of previously granted and outstanding options.

(3) Represents additional shares of common stock reserved for future issuance under the Plan.

- (4) Solely for the purpose of calculating the registration fee, the maximum aggregate offering price has been calculated pursuant to Rule 457(h) under the Securities Act based on the weighted average exercise price of such previously granted and outstanding options.
 - (5) Solely for the purpose of calculating the registration fee, the maximum offering price for shares for which the grant price or exercise price is unknown has been calculated pursuant to Rules 457(c) and Rule 457(h) of the Securities Act based on the average of the high and low sales prices of the Registrant's common stock as reported on the NYSE MKT on November 18, 2016.
 - (6) Pursuant to General Instruction E to Form S-8, a filing fee is only being paid with respect to the registration of additional securities for the Plan. A Registration Statement on Form S-8 was filed previously on December 19, 2008 (Registration No. 333-156371) for the existing shares under the Plan.
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**REGISTRATION OF ADDITIONAL SHARES
PURSUANT TO GENERAL INSTRUCTION E**

Pursuant to General Instruction E of Form S-8, PharmAthene, Inc. (the "Registrant") is filing this Registration Statement with the SEC to register 5,932,807 additional shares of Common Stock under the Registrant's 2007 Long-Term Incentive Compensation Plan, as amended on June 13, 2008 (the "Plan"), pursuant to the provisions of the Plan providing for an automatic increase in the number of shares reserved for issuance under the Plan pursuant to an evergreen provision.

This Registration Statement hereby incorporates by reference the contents of the Registrant's registration statement on Form S-8 filed with the Securities and Exchange Commission (the "Commission") on December 19, 2008 (Registration No. 333-156371). In accordance with the instructional note to Part I of Form S-8 as promulgated by the Commission, the information specified by Part I of Form S-8 has been omitted from this Registration Statement.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

We are incorporating by reference important business and financial information about us that we file with the SEC. Any information that we incorporate by reference is considered part of this prospectus. Information that we file with the SEC at a later date pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in the registration statement and to be part thereof from the date of filing of such information and automatically adds to, updates or supersedes the information listed below.

We incorporate by reference the following documents we have filed with the SEC:

- a) our Annual Report on Form 10-K for the year ended December 31, 2015;
- b) all other reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act since the end of the fiscal year covered by the Registrant's Annual Report on Form 10-K referred to in (a) above;
- c) our Definitive Proxy Statement filed with the SEC on May 15, 2008, including any amendments or supplements filed for the purpose of updating same; and
- d) the description of our common stock contained in our registration statement on Form 8-A filed with the SEC on July 27, 2005, including any amendments or reports filed for the purpose of updating such description, including the description of the Company's securities set forth in the Definitive Proxy Statement filed with the SEC on July 16, 2007, on page 159 under the caption "Description of Securities."

To the extent that any information contained in any Current Report on Form 8-K, or any exhibit thereto, is furnished to, rather than filed with, the SEC, such information or exhibit is specifically not incorporated by reference in this prospectus.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

None.

Item 6. Indemnification of Directors and Officers.

Our certificate of incorporation provides that the Company, to the full extent permitted by Section 145 of the Delaware General Corporation Law, as amended from time to time, shall indemnify all persons whom it may indemnify pursuant thereto. It further provides that expenses (including attorneys' fees) incurred by an officer or director in defending any civil, criminal, administrative, or investigative action, suit or proceeding for which such officer or director may be entitled to indemnification hereunder shall be paid by the Company in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director or officer to repay such amount if it shall ultimately be determined that he is not entitled to be indemnified by the Company as authorized thereby.

Our bylaws provide the Company with the power to indemnify its officers, directors, employees and agents or any person serving at the Company's request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise to the fullest extent permitted by Delaware law.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to the Company's directors, officers, and controlling persons pursuant to the foregoing provisions, or otherwise, the Company has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment of expenses incurred or paid by a director, officer or controlling person in a successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Company will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to the court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

All of our directors and officers are covered by insurance policies maintained by the Company against certain liabilities for actions taken in their capacities as such, including liabilities under the Securities Act.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

Exhibit No.	Description
4.1	2007 Long-Term Incentive Compensation Plan*
5.1	Opinion of Dentons US LLP
23.1	Consent of Dentons US LLP (included in Exhibit 5.1)
23.2	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm
24.1	Powers of Attorney (included on the signature page of this Registration Statement)

* Incorporated by reference to the Definitive Proxy Statement on Schedule 14A filed by the Registrant on May 15, 2008.

Item 9. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) to file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) to include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) to reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement; and

(iii) to include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

(2) that, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) to remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new Registration Statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(h) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Annapolis, State of Maryland on November 22, 2016.

PHARMATHENE, INC.
(Registrant)

By: /s/ John M. Gill
John M. Gill
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, each of the undersigned constitutes and appoints John M. Gill and Phillip MacNeill, and each of them, as attorneys-in-fact and agents, with full power of substitution and resubstitution, for and in the name, place and stead of the undersigned, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement or any Registration Statement for this offering that is to be effective upon the filing pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and all post-effective amendments thereto, and to file the same, with all exhibits thereto and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as the undersigned might or could do in person, hereby ratifying and confirming all that each of said attorney-in-fact or substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities indicated, on November 22, 2016.

<u>Signature</u>	<u>Title</u>
<u>/s/ John M. Gill</u> John M. Gill	President, Chief Executive Officer and Director (Principal Executive Officer)
<u>/s/ Philip MacNeill</u> Philip MacNeill	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ Mitchel Sayare, Ph.D.</u> Mitchel Sayare, Ph.D.	Chairman of the Board
<u>/s/ Derace L. Schaffer, MD</u> Derace L. Schaffer, MD	Director
<u>/s/ Jeffrey W. Runge, M.D.</u> Jeffrey W. Runge, M.D.	Director
<u>/s/ Eric I. Richman</u> Eric I. Richman	Director
<u>/s/ Steven St. Peter, M.D.</u> Steven St. Peter, M.D.	Director

EXHIBIT INDEX

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23.2	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm
24.1	Powers of Attorney (included on the signature page of this Registration Statement)

* Incorporated by reference to the Definitive Proxy Statement on Schedule 14A filed by the Registrant on May 15, 2008.

[Letterhead of Dentons US LLP]

November 22, 2016

PharmAthene, Inc.
One Park Place
Suite #450
Annapolis, MD 21401

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

In our capacity as counsel to PharmAthene, Inc., a Delaware corporation (the “**Company**”), we have been asked to render this opinion in connection with a registration statement on Form S-8 (the “**Registration Statement**”), being filed contemporaneously herewith by the Company with the Securities and Exchange Commission under the Securities Act of 1933, as amended (the “**Act**”), covering 5,932,807 shares (the “**Shares**”) of common stock, par value \$0.0001 per share, of the Company issuable pursuant to the terms of the Company’s 2007 Long-Term Incentive Compensation Plan, as amended (the “**Plan**”).

In connection with rendering this opinion, we have examined (i) the Company’s Amended and Restated Certificate of Incorporation, as amended, (ii) the Company’s By-Laws, (iii) the Plan, (iv) the Registration Statement, (v) corporate proceedings of the Company relating to the Plan, and (vi) such other instruments and documents as we have deemed relevant under the circumstances.

In making the aforesaid examinations, we have assumed the genuineness of all signatures, the authority of the persons who executed such documents, the authenticity of all documents submitted to us as originals, the conformity to the original documents of all documents submitted to us as copies, and the due execution and delivery of all documents by any persons or entities where due execution and delivery by such persons or entities is a prerequisite to the effectiveness of such documents. As to various factual matters that are material to this opinion, we have relied upon certificates of public officials and certificates, resolutions, documents, statements and other information of the Company or its representatives. In addition, for purposes of this opinion, we have assumed that a sufficient number of authorized but unissued shares of the Company’s common stock, par value \$0.0001 per share, will be available for issuance when the Shares are issued. We have not independently verified or investigated, nor do we assume any responsibility for, the factual accuracy or completeness of such factual statements. We have also assumed that the corporate records furnished to us by the Company include all corporate proceedings taken by the Company to date.

Based upon the foregoing and subject to the assumptions and qualifications set forth herein, we are of the opinion that the Shares have been duly and validly authorized and, when issued and paid for in accordance with the terms of the Plan, will be duly and validly issued, fully paid and non-assessable.

The foregoing opinion is limited to the laws of the United States of America and Delaware corporate law (which includes the Delaware General Corporation Law and applicable provisions of the Delaware constitution, as well as reported judicial opinions interpreting same), as now in effect and that, in the exercise of reasonable professional judgment, are normally considered in transactions such as the issuance of the Shares, and the foregoing opinion does not purport to express any opinion on the laws of any other jurisdiction. This opinion is provided for use solely in connection with the sale of the Shares, and except for its use in connection with such sale, may not be furnished to, quoted from or relied upon by any other person, firm, or corporation without our express written consent. No opinion may be implied or inferred beyond the opinion expressly stated in the paragraph immediately above. The opinion expressed herein is as of the date hereof, and we undertake no obligation to advise you of any changes in applicable law or any other matters that may come to our attention after the date hereof that may affect our opinions expressed herein.

We hereby consent to the use of our opinion as an exhibit to the Registration Statement. In giving such consent, we do not hereby admit that we come within the category of persons whose consent is required under Section 7 of the Act, or the rules and regulations of the Securities and Exchange Commission thereunder.

Very truly yours,

DENTONS US LLP

By: /s/ Dentons US LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 pertaining to the PharmAthene, Inc. 2007 Long Term Incentive Compensation Plan of our reports dated March 11, 2016, with respect to the consolidated financial statements and schedules of PharmAthene, Inc. and the effectiveness of internal control over financial reporting of PharmAthene, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2015, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP
Baltimore, MD
November 22, 2016
