

Mail Stop 4720

November 6, 2009

*Via Facsimile and U.S. Mail*

David P. Wright  
Chief Executive Officer  
PharmAthene, Inc.  
One Park Place, Suite 450  
Annapolis, Maryland 21401

**Re: PharmAthene, Inc.  
Amendment No. 1 to Registration Statement on Form S-3  
Filed August 31, 2009  
File No. 333-161587**

Dear Mr. Wright:

We have reviewed your October 14, 2009 response to our September 17, 2009 letter and have the following comments. Where indicated, we think you should revise your document in response to these comments. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. After reviewing this information, we may or may not raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form S-3

General

1. We note your response to comment 1. After careful consideration of your analysis, we are unable to concur with your conclusion that your proposed transaction should be treated as a secondary offering. We understand that the conversion price is not a discount to the market price and that the conversion price does not adjust relative to the market price of the underlying common stock. Our conclusion that the offering is a primary offering is due to the fact that you are registering the resale of shares constituting 85.1% of your

current public float. Given the size relative to the number of shares outstanding held by non-affiliates, the nature of the offering and the selling security holders, the transaction appears to be a primary offering. Please revise your registration statement onto a form you are eligible to use for a primary offering, identify the selling shareholders as underwriters and set a price for the offering. Alternatively, reduce the size of your offering.

2. We note your responses to comments 4 and 5. We understand that the market price at the time of the transaction was less than the conversion price and that a conversion at that time would have resulted in a loss. Please present the requested information showing the loss the security holders would realize as a result of a conversion.
3. Please revise your response to comment 6 to include the one-time liquidated damages in the line item "Payments Made or Required to be Made to Selling Shareholders and Affiliates."
4. Please revise the table presented in response to comment 7 to present the requested information for each selling shareholder rather than presenting the information in the aggregate.

\* \* \*

As appropriate, please revise your information statement in response to these comments. You may wish to provide us with marked copies of the revised document to expedite our review. Please furnish a response letter that keys your responses to our comments. Detailed cover letters greatly facilitate our review. Please file your cover letter on EDGAR under the form type label CORRESP. Please understand that we may have additional comments after reviewing your amendment and response to our comment.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that

- the company is responsible for the adequacy and accuracy of the disclosure in the filings;
- staff comments or changes to disclosure in response to staff comments in the filings reviewed by the staff do not foreclose the Commission from taking any action with respect to the filing; and

David P. Wright  
PharmAthene, Inc.  
November 6, 2009  
Page 3

- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

Please contact Scot Foley, Attorney-Advisor, at (202) 551-3383, Suzanne Hayes, Branch Chief, at (202) 551-3675 or me at (202) 551-3715 with any questions.

Sincerely,

Jeffrey Riedler  
Assistant Director

cc: Jeffrey A. Baumel, Esq.  
Roland S. Chase, Esq.  
Sonnenschein Nath & Rosenthal LLP  
1221 Avenue of the Americas  
New York, New York 10020