



DIVISION OF  
CORPORATION FINANCE

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549

October 1, 2010

Marc D. Beer  
Chief Executive Officer  
Aegerion Pharmaceuticals, Inc.  
CenterPointe IV  
1140 Route 22 East, Suite 304  
Bridgewater, New Jersey 08807

**Re: Aegerion Pharmaceuticals, Inc.  
Amendment No. 1 to Registration Statement on Form S-1  
Filed September 17, 2010  
File No. 333-168721**

Dear Mr. Beer:

We have reviewed your amended registration statement filed September 17, 2010 and response letters filed September 17, 2010, September 24, 2010 and September 29, 2010 and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Management's Discussion and Analysis of Financial Condition and Results of Operations  
Critical Accounting Policies and Estimates  
Valuation of Financial Instruments, page 57

1. Please refer to your response to our prior comment 17. We believe that additional information related to the third-party valuations would be useful to investors. Therefore, please revise your disclosure to include the procedures you performed to validate the information you received from the third party specialists.

Stock-Based Compensation, page 57

2. Please refer to your response to our prior comment 18. Please revise your table for stock option activity to disclose the weighted average fair value per share of common stock.

Please explain any differences between the exercise price per share and the fair value per share.

3. Please refer to your response to our prior comment 20. Your revised disclosure does not address our comment. Please revise your disclosure to clarify why the withdrawal of your IPO registration statement contributed to the decline in the fair value of your common stock. For example, one reason could be that the liquidity event was less likely.
4. Please refer to your response to our prior comment 21. Please revise your disclosure to include the information related to this issue from your response dated September 23, 2010. Please clarify in your disclosure that during the quarter ended March 31, 2010, the board of directors concluded that there was no material change in the fair market value of the company's common stock. Please disclose the qualitative factors the company considered in determining that the fair value had remained unchanged.
5. Please refer to your proposed disclosure included in your response filed on September 29, 2010. Please revise your disclosure to clarify whether all of the factors identified have been achieved.

Management  
Executive Officers and Directors, page 94

6. Please confirm that you have provided all of Mr. Beer's business experience for the last five years. Alternatively, discuss his experience between November 2007 and August 2010.
7. Please expand your disclosure regarding Mr. Garrambone and Mr. Sasiela to disclose that such persons resigned in September 2010. In addition, to the extent that you have experienced problems retaining or attracting key executives, please revise your risk factor "Our future success depends on our ability to hire and retain our key executives and to attract, retain, and motivate qualified personnel" on page 37 to disclose information regarding any problems that you may have experienced.

Executive Compensation  
Compensation Discussion and Analysis  
Annual Cash Compensation  
Cash Incentive Bonuses, page 102

8. We are reissuing prior comment 33. You disclose that your compensation committee determined that you achieved a majority of your corporate objectives. Please revise your disclosure in this section to provide a discussion of your Compensation Committee's evaluation of the level of achievement of each corporate objective and how this level of achievement led to the actual bonus awarded.

Equity Incentive Compensation, page 103

9. We are reissuing prior comment 34. You disclose that your board of directors considers qualitative factors, the number of shares available for issuance under the 2006 Option Plan and the contributions that the executives made to corporate objectives in 2009 in setting equity incentive awards for 2009. Please expand your disclosure to provide a discussion of the contributions of each executive that were considered by your compensation committee and/or board in their evaluation and how these contributions lead to the number of shares included in the equity incentive award.

Director Compensation, page 114

10. We have reviewed your response to prior comment 37 and we have the following additional comments.
- Your response regarding your board compensation agreements with Mr. Garrambone and Dr. Gotto does not appear to be consistent with your disclosure in your registration statement. You disclose that non-employee directors are only compensated if they have an agreement in place with you with respect to receiving compensation in connection with serving as a member of your board. Furthermore, for the year ended December 31, 2009, Mr. Garrambone and Dr. Gotto were entitled to receive compensation in connection with attending meetings of the board of directors and Mr. Garrambone was entitled to an annual retainer of \$20,000. The agreement with Mr. Garrambone which is filed as Exhibit 10.17 does not discuss board compensation arrangements other than stating that you will “continue to provide the compensation previously agreed to in connection with [Mr. Garrambone’s] services as a member of the Board of Directors.” Please file copies of your board compensation agreements with Mr. Garrambone and Dr. Gotto or revise your disclosure to clarify that these agreements will terminate upon the closing of this offering.
  - Please expand your disclosure to provide the material terms of your consulting agreements with Mr. Scheer and Dr. Gotto pursuant to Item 402(k)(3)(ii) of Regulation S-K, including the services performed and the payment terms under the agreement.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules 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.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed

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public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Vanessa Robertson at (202) 551-3649 or Mark Brunhofer at (202) 551-3638 if you have questions regarding comments on the financial statements and related matters. Please contact Jennifer Riegel at (202) 551-3575, Suzanne Hayes at (202) 551-3675 or me at (202) 551-3715 with any other questions.

Sincerely,

Jeffrey Riedler  
Assistant Director

cc: Jocelyn M. Arel, Esq.  
Michael H. Bison, Esq.  
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53 State Street  
Boston, Massachusetts 02109