



DIVISION OF  
CORPORATION FINANCE

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

April 4, 2017

Sandesh Seth  
Executive Chairman  
Actinium Pharmaceuticals, Inc.  
275 Madison Avenue, 7th Floor  
New York, New York 10016

**Re: Actinium Pharmaceuticals, Inc.  
Registration Statement on Form S-3  
Filed March 16, 2016  
File No. 333-216748**

Dear Mr. Seth:

We have limited our review of your registration statement to those issues we have addressed in our 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.

Form S-3 filed March 16, 2017

Exhibits

1. Please file a revised legal opinion that also opines as to the debt securities being offered under the base prospectus.
2. Please file the Statement of Eligibility on Form T-1 as Exhibit 25.1. To the extent you intend to rely upon Section 305(b)(2) of the Trust Indenture Act to designate a trustee on a delayed basis, please include footnote disclosure to the exhibit index stating that the Form T-1 will be filed separately under the electronic form type "305B2." For guidance, please refer to Question 206.01 of the Trust Indenture Act of 1939 Compliance and Disclosure Interpretations, available at <http://www.sec.gov/divisions/corpfin/guidance/tiinterp.htm>.

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We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Johnny Gharib at (202) 551-3170 or Mary Beth Breslin at (202) 551-3625 with any questions.

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