



DIVISION OF
CORPORATION FINANCE

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

April 1, 2014

Via E-Mail

Kaushik J. Dave
President and CEO
Actinium Pharmaceuticals, Inc.
501 5th Avenue, 3rd Floor
New York, NY 10017

**Re: Actinium Pharmaceuticals, Inc.
Registration Statement on Form S-3
Filed March 24, 2014
File No. 333-194768
Form 10-K for the Fiscal Year Ended December 31, 2013
Filed February 28, 2014
File No. 000-52446**

Dear Mr. Dave:

We have limited our review of your filings 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 filings and providing the requested information. Where 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 filings and the information you provide in response to these comments, we may have additional comments.

Form S-3

Exhibit 5.1

1. Please file as exhibits forms of the certificate of designation of preferred stock, warrant agreement and warrant certificate and unit agreement.

Form 10-K

Item 9A. Controls and Procedures

2. We note that the company determined that its internal control over financial reporting as of December 31, 2013 was not effective because of the following two material weaknesses: (1) insufficient written policies and procedures for accounting and financial reporting and (2) ineffective controls over period end financial disclosure and reporting processes. Given the existence of these material weaknesses, please tell us how the company determined that it had effective disclosure controls and procedures for the same period.

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.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rule 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 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.

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If you have any questions regarding these comments, please contact Matthew Crispino, Staff Attorney, at (202) 551-3456 or, in his absence, me at (202) 551-3462. Should you require further assistance, you may contact Barbara C. Jacobs, Assistant Director, at (202) 551-3730.

Sincerely,

/s/Mark P. Shuman

Mark P. Shuman
Branch Chief – Legal

cc: Via Email
Thomas Slusarczyk, Esq.
Hisock & Barclay, LLP