ACTINIUM PHARMACEUTICALS, INC. 501 Fifth Avenue, 3rd Floor New York, New York 10017

April 16, 2014

VIA EDGAR

Mr. Mark P. Shuman Securities and Exchange Commission 100 F Street, NE Washington, DC 20549

RE: Actinium Pharmaceuticals, Inc. (the "Company") Registration Statement on Form S-3 (File No. 333-194768) (the "Registration Statement")

Dear Mr. Shuman:

The Company hereby requests, pursuant to Rule 461 promulgated under the Securities Act of 1933, as amended, acceleration of effectiveness of the Registration Statement so that such Registration Statement will become effective as of 1:00 P.M., Thursday, April 17, 2014 or as soon thereafter as practicable, or at such later time as the Company or its counsel may orally request via telephone call to the staff of the Division of Corporation Finance of the Securities and Exchange Commission.

In connection with the Company's request for acceleration of effectiveness of the above-referenced Registration Statement, the Company acknowledges the following:

(1) 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;

(2) 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

(3) 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.

Very truly yours,

ACTINIUM PHARMACEUTICALS, INC.

By: /s/ Kaushik J. Dave

Name: Kaushik J. Dave Title: President and Chief Executive Officer