

**United States
Securities and Exchange Commission
Washington, D.C. 20549**

FORM S-8

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Actinium Pharmaceuticals, Inc.
(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	74-2963609 (I.R.S. Employer Identification No.)
100 Park Ave., 23rd Floor, New York, NY (Address of Principal Executive Offices)	10017 (Zip Code)

Actinium Pharmaceuticals Inc. 2019 Stock Plan
(Full title of the plan)

Sandesh Seth
Chairman and Chief Executive Officer
100 Park Ave., 23rd Floor,
New York, New York 10017
(Name and address of agent for service)

(646) 677-3870
(Telephone number, including area code, of agent for service)

Copy to:

Rick A. Werner, Esq.
Jayun Koo, Esq.
Haynes and Boone, LLP
30 Rockefeller Plaza, 26th Floor
New York, New York 10112
Tel. (212) 659-7300
Fax (212) 884-8234

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed by Actinium Pharmaceuticals, Inc. (the "Company") in connection with the registration of an additional 3,500,000 shares of the Company's common stock, par value \$0.001 per share (the "Common Stock") issuable pursuant to the Actinium Pharmaceuticals, Inc. 2019 Stock Plan (as amended, the "2019 Plan"). The Company initially registered 5,833,333 shares of Common Stock issuable under the 2019 Plan pursuant to a Registration Statement on Form S-8 filed with the Securities and Exchange Commission on August 19, 2022 (File No. 333-266996) (the "Initial S-8"). On December 30, 2022, the stockholders of the Company approved at the 2022 annual meeting of stockholders an amendment to the 2019 Plan to increase the aggregate number of shares of Common Stock available for the grant of awards to a total of 9,333,333 shares. The information contained in the Initial S-8 is hereby incorporated by reference, to the extent not replaced hereby, pursuant to General Instruction E of Form S-8.

**PART II
INFORMATION REQUIRED IN THE REGISTRATION STATEMENT**

Item 8. Exhibits.

Exhibit No.	Description
4.1	Certificate of Incorporation of Actinium Pharmaceuticals, Inc. (incorporated by reference to Exhibit 3.1 of the Company's Form 8-K filed with the SEC on April 17, 2013).
4.2	Certificate of Amendment to Certificate of Incorporation filed January 7, 2014 (incorporated by reference to Exhibit 3.5 to Form S-1 filed on January 31, 2014).
4.3	Certificate of Amendment to Certificate of Incorporation filed February 3, 2014. (incorporated by reference to Exhibit 3.1 to Form 8-K filed on February 7, 2014).
4.4	Certificate of Amendment to Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to Form 8-K filed on March 4, 2015).
4.5	Certificate of Amendment to Actinium's Certificate of Incorporation, as amended, filed on February 26, 2018 (incorporated by reference to Exhibit 3.1 to Form 8-K filed on February 26, 2018).
4.6	Certificate of Amendment to Actinium's Certificate of Incorporation, as amended, filed on March 6, 2019 (incorporated by reference to Exhibit 3.7 to Form 10-K filed on March 15, 2019).
4.7	Certificate of Amendment to Certificate of Incorporation, as amended, filed on June 16, 2020 (incorporated by reference to Exhibit 3.1 to Form 8-K filed on June 16, 2020).
4.8	Amended and Restated Bylaws, dated August 8, 2018 (incorporated by reference to Exhibit 3.1 to Form 10-O filed on August 9, 2018).
4.9	Amendment to the Amended and Restated Bylaws, dated May 7, 2020 (incorporated by reference to Exhibit 3.1 to Form 8-K filed on May 5, 2020).
5.1*	Opinion of Haynes and Boone, LLP.
23.1*	Consent of Marcum LLP, Independent Registered Public Accounting Firm.
23.2*	Consent of Haynes and Boone, LLP (included in Exhibit 5.1).
24.1*	Power of Attorney (included in signature page).
99.1	Actinium Pharmaceuticals, Inc. 2019 Plan (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K, filed with the Commission on November 20, 2020).
99.2	Amendment to the Actinium Pharmaceuticals, Inc. 2019 Plan (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K, filed with the Commission on November 20, 2020).
99.3	Second Amendment to the Actinium Pharmaceuticals, Inc. 2019 Plan (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K, filed with the Commission on November 9, 2021).
99.4	Third Amendment to the Actinium Pharmaceuticals, Inc. 2019 Stock Plan (incorporated by reference to Exhibit 99.4 to the Registration Statement on Form S-8, filed with the Commission on August 19, 2022)
99.5	Fourth Amendment to the Actinium Pharmaceuticals, Inc. 2019 Stock Plan (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K, filed with the Commission on December 30, 2022).
107*	Filing Fee Table

* Filed herewith.

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SIGNATURES

Pursuant to the requirements of the Securities Act, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of New York, State of New York, on the 29th day of March, 2024.

Actinium Pharmaceuticals, Inc.

By: /s/ Sandesh Seth
Sandesh Seth
Chief Executive Officer

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints Sandesh Seth or Steve O'Loughlin, each with full power to act alone, as his true and lawful attorney-in-fact and agent, with full power of substitution, for him and on his behalf and in his name, place and stead, in any and all capacities, to execute any and all amendments (including post-effective amendments) to this Registration Statement, including, without limitation, additional registration statements filed pursuant to Rule 462(b) under the Securities Act, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Commission, granting unto said attorney-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises in order to effectuate the same, as fully and to all intents and purposes as he might or could do if personally present, hereby ratifying and confirming all that said attorneys-in-fact and agents, or either of them, or their substitute or their substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act this Registration Statement has been signed by the following persons in the capacities indicated and on the 29th day of March, 2024.

Signature	Title
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/s/ Sandesh Seth

Sandesh Seth

Chairman and Chief Executive Officer

(Principal Executive Officer)

/s/ Steve O'Loughlin

Steve O'Loughlin

Chief Financial Officer

(Principal Financial Officer and Principal Accounting Officer)

/s/ Jeffrey Chell

Jeffrey Chell

Director

/s/ David Nicholson

David Nicholson

Director

/s/ Richard I. Steinhart

Richard I. Steinhart

Director

/s/ Ajit J. Shetty

Ajit J. Shetty

Director

March 29, 2024

Actinium Pharmaceuticals, Inc.
100 Park Ave., 23rd Floor,
New York, New York 10017

Re: Registration Statement on Form S-8 of 3,500,000 Shares of Common Stock of Actinium Pharmaceuticals, Inc.

Ladies and Gentlemen:

We have acted as counsel to Actinium Pharmaceuticals, Inc., a Delaware corporation (the "**Company**"), in connection with the filing with the Securities and Exchange Commission (the "**Commission**") under the Securities Act of 1933, as amended (the "**Act**") of a registration statement on Form S-8 (the "**Registration Statement**") by the Company on the date hereof. The Registration Statement relates to the registration of up to 3,500,000 shares of the Company's common stock, \$0.001 par value per share ("**Common Stock**"), issuable pursuant to the Actinium Pharmaceuticals Inc. 2019 Plan (as amended, the "**Plan**" and such shares the "**Plan Shares**").

This opinion is being furnished in accordance with the requirements of Item 601(b)(5) of Regulation S-K under the Act.

For purposes of the opinions we express below, we have examined originals, or copies certified or otherwise identified, of (i) the Certificate of Incorporation (the "**Certificate of Incorporation**") and the Amended and Restated Bylaws (the "**Bylaws**") of the Company, each as amended and/or restated as of the date hereof; (ii) certain resolutions of the Board of Directors of the Company related to the filing of the Registration Statement, the authorization and issuance of the Plan Shares and related matters; (iii) the Registration Statement and all exhibits thereto; (iv) the Plan; (v) a certificate executed by an officer of the Company, dated as of the date hereof; and (vi) such other records, documents and instruments as we have deemed necessary or appropriate for purposes of the opinions hereafter expressed.

As to questions of fact material to the opinions expressed below, we have, without independent verification of their accuracy, relied to the extent we deem reasonably appropriate upon the representations and warranties of the Company contained in such documents, records, certificates, instruments or representations furnished or made available to us by the Company.

In making the foregoing examination, we have assumed (i) the genuineness of all signatures, (ii) the authenticity of all documents submitted to us as originals, (iii) the conformity to original documents of all documents submitted to us as certified or photostatic copies, (iv) that all agreements or instruments we have examined are the valid, binding and enforceable obligations of the parties thereto, and (v) that all factual information on which we have relied was accurate and complete.

We have not considered, and express no opinion herein as to, the laws of any state or jurisdiction other than the General Corporation Law of the State of Delaware, as currently in effect (the "**DGCL**").

We have also assumed that, at the time of the issuance of the Plan Shares: (i) the Company will continue to be incorporated and in existence and good standing in its jurisdiction of organization; (ii) the resolutions of the Board of Directors of the Company referred to above will not have been modified or rescinded, (iii) the Company will receive consideration for the issuance of the Plan Shares required by the Plan and that is at least equal to the par value of the Common Stock, (iv) all requirements of the DGCL, the Certificate of Incorporation and the Bylaws will be complied with when the Plan Shares are issued, (v) sufficient shares of Common Stock will be authorized for issuance under the Certificate of Incorporation of the Company that have not otherwise been issued or reserved for issuance.

The opinions expressed herein are rendered only to you in connection with the Registration Statement. We express no opinion as to any matter other than as expressly set forth above, and no opinion on any other matter may be inferred or implied herefrom. The opinions expressed herein are rendered as of the date hereof and we expressly disclaim any obligation to update this letter or advise you of any change in any matter after the date hereof. The opinions expressed herein may not be relied upon by you for any other purpose, or be furnished to, quoted to or relied upon by any other person, firm or corporation or for any other purpose.

Based on the foregoing, and subject to the qualifications, assumptions and limitations stated herein, we are of the opinion that upon the issuance of the Plan Shares in accordance with the terms of the Plan, the Plan Shares will be validly issued, fully paid and non-assessable.

We hereby consent to the filing of this opinion as Exhibit 5.1 to the Registration Statement and to all references to us in the Registration Statement. In giving this consent, we do not hereby admit we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Haynes and Boone, LLP
Haynes and Boone, LLP

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the incorporation by reference in this Registration Statement of Actinium Pharmaceuticals, Inc. on Form S-8 of our report dated March 29, 2024, with respect to our audits of the consolidated financial statements of Actinium Pharmaceuticals, Inc. as of December 31, 2023 and 2022 and for each of the two years in the period ended December 31, 2023 appearing in the Annual Report on Form 10-K of Actinium Pharmaceuticals, Inc. for the year ended December 31, 2023.

/s/ Marcum LLP

Marcum LLP

Houston, Texas

March 29, 2024

Calculation of Filing Fee Tables

Form S-8
(Form Type)

Actinium Pharmaceuticals, Inc.
(Exact Name of Registrant as Specified in its Charter)

Table 1—Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount to be Registered (1)	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common stock, par value \$0.001 per share	Rule 457(c) and Rule 457(h)	3,500,000 ⁽²⁾	\$ 9.03 ⁽³⁾	\$ 31,605,000	\$147.60 per \$1,000,000	\$ 4,664.90
Total Offering Amounts					\$ 31,605,000		\$ 4,664.90
Total Fee Offsets (4)							\$ -
Net Fee Due							\$ 4,664.90

(1) In accordance with Rule 416 under the Securities Act of 1933, as amended (the “Securities Act”), we are also registering an indeterminable number of shares of common stock, par value \$0.001 per share, as may be issued in connection with stock splits, stock dividends or similar transactions.

(2) Represents shares of common stock issuable pursuant to unissued equity awards under the Actinium Pharmaceuticals, Inc. 2019 Plan, as amended.

(3) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) and Rule 457(h) under the Securities Act based on the average of the high and low prices per share of common stock as reported by NYSE American on March 25, 2024.

(4) The Registrant does not have any fee offsets.