

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.)

**275 Madison Avenue, 7th Floor, New York, NY**

(Address of Principal Executive Offices)

**10016**

(Zip Code)

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

**Sandesh Seth**  
**Chairman and Chief Executive Officer**  
**275 Madison Avenue, 7<sup>th</sup> Floor,**  
**New York, New York 10016**  
(Name and address of agent for service)

**(914) 233-3004**  
(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 ☐  
Non-accelerated filer ☒

Accelerated filer ☐  
Smaller reporting company ☒  
Emerging growth company ☐

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 5,833,333 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”).

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**PART I**  
**INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS**

In accordance with the instructional Note to Part I of Form S-8 as promulgated by the Securities and Exchange Commission (the “Commission”), the information specified by Part I of Form S-8 has been omitted from this Registration Statement on Form S-8 for offers of common stock pursuant to the 2019 Plan. The documents containing this information will be sent or given to eligible participants as specified in Rule 428(b)(1) of the Securities Act of 1933, as amended (the “Securities Act”). Such documents are not being filed by the Company with the Commission either as part of this Registration Statement or as prospectuses or prospectus supplements pursuant to Rule 424 of the Securities Act. Such documents and the documents incorporated by reference in this Registration Statement pursuant to Item 3 of Part II hereof, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

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

**Item 3. Incorporation of Documents by Reference.**

The Securities and Exchange Commission (the “Commission”) allows us to “incorporate by reference” certain information we have filed with the Commission into this Registration Statement, which means that we are disclosing important information to you by referring you to other information we have filed with the Commission. The information we incorporate by reference is considered part of this Registration Statement. We specifically are incorporating by reference the following documents filed with the Commission (excluding those portions of any Current Report on Form 8-K that are furnished and not deemed “filed” pursuant to the General Instructions of Form 8-K):

1. Our Annual Report on [Form 10-K](#) for the year ended December 31, 2021, filed with the Commission on March 25, 2022;
2. Our Quarterly Report on [Form 10-Q](#) for the quarter ended March 31, 2022, filed with the Commission on May 13, 2022, and our Quarterly Report on [Form 10-Q](#) for the quarter ended June 30, 2022, filed with the Commission on August 12, 2022;
3. Our Current Reports on Form 8-K filed with the Commission on [April 13, 2022](#) and [June 29, 2022](#);
4. The description of our common stock, which is contained in [Exhibit 4.15](#) to our Annual Report on Form 10-K for the year ended December 31, 2020, filed with the SEC on March 31, 2021, and any amendment or report filed with the SEC for purposes of updating such description.

Additionally, all documents subsequently filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as Amended (the “Exchange Act”) (other than any such documents or portions thereof that are furnished under Item 2.02 or Item 7.01 of a Current Report on Form 8-K, unless otherwise indicated therein, including any exhibits included with such Items), prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated herein by reference and to be a part of this Registration Statement from the date of filing of such documents. Any statement contained in a document incorporated herein by reference will be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein, or in a subsequently filed document incorporated herein by reference, modifies or supersedes the statement. Any statement modified or superseded will not be deemed, except as modified or superseded, to constitute a part of this Registration Statement.

We will provide without charge to each person to whom documents are being provided pursuant to Part I of this Registration Statement, upon the written or oral request of any such person, a copy of any document described above (other than exhibits). Requests for such copies should be directed to Actinium Pharmaceuticals, Inc., 275 Madison Avenue, 7th Floor, New York, NY 10016, Attention: Steve O’Loughlin, Chief Financial Officer; or by telephone at: (646) 677-3875.

**Item 4. Description of Securities.**

Not applicable.

**Item 5. Interests of Named Experts and Counsel.**

Not applicable.

**Item 6. Indemnification of Directors and Officers.**

Section 102(b)(7) of the Delaware General Corporation Law allows a corporation to provide in its certificate of incorporation that a director of the corporation will not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except where the directors breached the duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. Our certificate of incorporation provides for this limitation of liability.

Section 145 of the General Corporation Law of the State of Delaware provides that a Delaware corporation may indemnify any person who was, is or is threatened to be made, party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person is or was an officer, director, employee or agent of such corporation or is or was serving at the request of such corporation as a director, officer employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his conduct was illegal. A Delaware corporation may indemnify any persons who are, or were, a party to any threatened, pending or completed action or suit by or in the right of the corporation by reason of the fact that such person is or was a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit, provided such person acted in good faith and in a manner he reasonably believed to be in or not opposed to the corporation's best interests, provided that no indemnification is permitted without judicial approval if the officer, director, employee or agent is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him against the expenses which such officer or directors has actually and reasonably incurred.

Section 145 further authorizes a corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or enterprise, against any liability asserted against him and incurred by him in any such capacity, or arising out of his status as such, whether or not the corporation would otherwise have the power to indemnify him under Section 145.

Our bylaws provide that we will indemnify our directors and officers to the fullest extent authorized by the General Corporation Law of the State of Delaware. Expenses (including attorneys' fees) incurred by an officer or director of the Corporation in defending any civil, criminal, administrative or investigative action, suit or proceeding may be paid by the Company in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director or officer to repay such amount if it shall ultimately be determined that such person is not entitled to be indemnified by the Company as authorized under Delaware law. Such expenses (including attorneys' fees) incurred by former directors and officers or other employees and agents of the Company or by persons serving at the request of the Company as directors, officers, employees or agents of another corporation, partnership, joint venture, trust or other enterprise may be so paid upon such terms and conditions, if any, as the Company deems appropriate.

The indemnification rights set forth above shall not be exclusive of any other right which an indemnified person may have or hereafter acquire under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee, or agent and shall inure to the benefit of the heirs, executors, and administrators of such person.

We maintain a general liability insurance policy that covers liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers. We have also entered in to Indemnification Agreements with our executive officers and directors.

**Item 7. Exemption from Registration Claimed.**

Not applicable.

**Item 8. Exhibits.**

The list of exhibits is set forth under "Exhibit Index" at the end of this Registration Statement and is incorporated herein by reference.

**Item 9. Undertakings.**

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

*provided, however,* that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Exchange Act that are incorporated by reference in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(h) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

## EXHIBIT INDEX

Exhibit No.	Description
4.1	<a href="#"><u>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).</u></a>
4.2	<a href="#"><u>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).</u></a>
4.3	<a href="#"><u>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).</u></a>
4.4	<a href="#"><u>Certificate of Amendment to Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to Form 8-K filed on March 4, 2015).</u></a>
4.5	<a href="#"><u>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).</u></a>
4.6	<a href="#"><u>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).</u></a>
4.7	<a href="#"><u>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).</u></a>
4.8	<a href="#"><u>Amended and Restated Bylaws, dated August 8, 2018 (incorporated by reference to Exhibit 3.1 to Form 10-Q filed on August 9, 2018).</u></a>
4.9	<a href="#"><u>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).</u></a>
5.1*	<a href="#"><u>Opinion of Haynes and Boone, LLP.</u></a>
23.1*	<a href="#"><u>Consent of Marcum LLP, Independent Registered Public Accounting Firm.</u></a>
23.2*	<a href="#"><u>Consent of Haynes and Boone, LLP (included in Exhibit 5.1).</u></a>
24.1*	<a href="#"><u>Power of Attorney (included in signature page).</u></a>
99.1	<a href="#"><u>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).</u></a>
99.2	<a href="#"><u>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).</u></a>
99.3	<a href="#"><u>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).</u></a>
99.4*	<a href="#"><u>Third Amendment to the Actinium Pharmaceuticals, Inc. 2019 Stock Plan.</u></a>
107*	<a href="#"><u>Filing Fee Table</u></a>

\* Filed herewith.



## 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 19th day of August, 2022.

### 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 19th day of August, 2022.

Signature	Title
<u>/s/ Sandesh Seth</u> Sandesh Seth	Chairman and Chief Executive Officer (Principal Executive Officer)
<u>/s/ Steve O'Loughlin</u> Steve O'Loughlin	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)
<u>/s/ Jeffrey Chell</u> Jeffrey Chell	Director
<u>David Nicholson</u>	Director
<u>/s/ Richard I. Steinhart</u> Richard I. Steinhart	Director
<u>/s/ Ajit J. Shetty</u> Ajit J. Shetty	Director

August 19, 2022

Actinium Pharmaceuticals, Inc.  
275 Madison Avenue, 7th Floor  
New York, NY 10016

Re: Registration Statement on Form S-8 of 5,833,333 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 (i) up to 2,845,993 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 by that certain Amendment to Actinium Pharmaceuticals, Inc. 2019 Plan, effective as of November 18, 2020, that certain Second Amendment to Actinium Pharmaceuticals, Inc. 2019 Plan, effective as of November 9, 2021 and that certain Third Amendment to Actinium Pharmaceuticals, Inc. 2019 Stock Plan, effective as of August 10, 2022 (collectively, the “**Plan**” and such shares the “**Plan Shares**”), (ii) up to 2,687,340 shares of Common Stock issuable pursuant to options previously granted under the Plan (the “**Option Shares**”), and (iii) up to 300,000 shares of Common Stock issuable pursuant to restricted stock units previously granted under the Plan (the “**RSU Shares**” and, together with the Plan Shares, the “**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 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 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 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 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 (i) 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 and (ii) upon issuance of the Option Shares in accordance with the terms of the Plan and the applicable awards executed pursuant to such Plan, the Option 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 25, 2022, with respect to our audits of the consolidated financial statements of Actinium Pharmaceuticals, Inc. as of December 31, 2021 and 2020 and for the years ended December 31, 2021 and 2020 appearing in the Annual Report on Form 10-K of Actinium Pharmaceuticals, Inc. for the year ended December 31, 2021.

/s/ Marcum LLP

Marcum LLP  
Houston, Texas  
August 19, 2022

**THIRD AMENDMENT TO  
ACTINIUM PHARMACEUTICALS, INC. 2019 STOCK PLAN**

This THIRD AMENDMENT TO ACTINIUM PHARMACEUTICALS, INC. 2019 STOCK PLAN (this “*Amendment*”), effective as of August 10, 2022, is made and entered into by Actinium Pharmaceuticals, Inc., a Delaware corporation (the “*Company*”). Terms used in this Amendment with initial capital letters that are not otherwise defined herein shall have the meanings ascribed to such terms in the Actinium Pharmaceuticals, Inc. 2019 Stock Plan (the “*Original Plan*”), as amended by those certain Amendments to Actinium Pharmaceuticals, Inc. 2019 Stock Plan, effective as of November 18, 2020 and November 9, 2021, respectively (collectively with the Original Plan, the “*Plan*”).

**RECITALS**

**WHEREAS**, Section 16(a) of the Plan provides that the Board may amend, alter, suspend, or discontinue the Plan at any time and from time to time; and

**WHEREAS**, the Board desires to amend the Plan to add restricted stock units as a type of equity award available for issuance under the Plan.

**NOW, THEREFORE**, in accordance with Section 16(a) of the Plan, the Company hereby amends the Plan as follows:

1. Section 1 of the Plan is hereby amended by deleting the first paragraph of said section in its entirety and substituting in lieu thereof the following new paragraph:

The purposes of this 2019 Stock Plan of the Company (the “Plan”) are to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentives to Employees, Directors and Consultants and to promote the success of the Company’s business. To achieve these purposes, the Company may grant (a) Incentive Stock Options or Nonstatutory Stock Options, as determined by the Administrator at the time of grant of an option and, if applicable, subject to the provisions of Section 422 of the Code and the regulations promulgated thereunder, (b) Stock Purchase Rights, or (c) Restricted Stock Units, all in accordance with the terms and conditions of the Plan.

2. Section 1 of the Plan is hereby further amended by deleting the first sentence of the last paragraph of said section in its entirety and substituting in lieu thereof the following new sentence:

The amendments made to the Plan shall affect only awards granted on or after their respective effective dates.

3. Section 2(c) of the Plan is hereby amended by deleting said section in its entirety and substituting in lieu thereof the following new Section 2(c):

(c) “**Applicable Laws**” means the legal requirements relating to the administration of stock option, restricted stock purchase, and restricted stock unit plans under applicable U.S. state corporate laws, U.S. federal laws and other applicable state laws, the Code and the regulations thereunder, any Stock Exchange rules or regulations and the applicable laws of any other country or jurisdiction where Options, Stock Purchase Rights, or RSUs are granted under the Plan, as such laws, rules, regulations and requirements shall be in place from time to time.

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(IV): 4. Section 2(e) of the Plan is hereby amended by deleting Subsection (iv)(B)(IV) in its entirety and substituting in lieu thereof the following new Subsection (iv)(B)

(IV) in respect of any Option, Restricted Stock or RSUs held by a particular Participant, any acquisition by the Participant or any group of persons including the Participant (or any entity controlled by the Participant or any group of persons including the Participant);

5. Section 2(k) of the Plan is hereby amended by deleting the phrase “of the Option” in the first sentence of said section and replacing it with new phrase “of an award”.

6. Section 2(z) of the Plan is hereby amended by deleting said section in its entirety and substituting in lieu thereof the following new Section 2(z):

(z) “**Participant**” means any holder of one or more Options, Stock Purchase Rights, RSUs, or the Shares issuable or issued upon exercise or conversion of such awards, under the Plan.

7. Section 2 of the Plan is hereby amended by adding the following new Sections 2(cc)-1 and 2(cc)-2 immediately following Section 2(cc):

(cc)-1 “**Restricted Stock Units**” or “**RSUs**” means units awarded to Participants pursuant to Section 11-1 below, which are convertible into Shares at such time as the units are no longer subject to restrictions as established by the Committee.

(cc)-2 “**RSU Agreement**” means a written document, the form(s) of which shall be approved from time to time by the Administrator, reflecting the terms of RSUs granted under the Plan and includes any documents attached to such agreement.

8. Section 4 of the Plan is hereby amended by deleting Subsections (c)(vi), (ix), and (xi) in their entirety and substituting in lieu thereof the following new Subsections (vi), (ix), and (xi):

(vi) to determine the terms and conditions, not inconsistent with the terms of the Plan, of any award granted hereunder, which terms and conditions include but are not limited to the exercise or purchase price, the time or times when awards may be exercised (which may be based on performance criteria), any vesting acceleration or waiver of forfeiture restrictions, any pro-rata adjustment to vesting as a result of a Participant’s transitioning from full- to part-time services (or vice versa), and any restriction or limitation regarding any Option, Optioned Stock, Stock Purchase Right, Restricted Stock, or Restricted Stock Units based, in each case, on such factors as the Administrator, in its sole discretion, shall determine;

(ix) to adjust the vesting of an award granted hereunder held by an Employee, Director or Consultant as a result of a change in the terms or conditions under which such person is providing services to the Company;

(xi) in order to fulfill the purposes of the Plan and without amending the Plan, to modify grants of Options, Stock Purchase Rights, or Restricted Stock Units to Participants who are foreign nationals or employed outside of the United States in order to recognize differences in local law, tax policies, or customs.

9. Section 5(a) of the Plan is hereby amended by deleting said section in its entirety and substituting in lieu thereof the following new Section 5(a):

(a) **Recipients of Grants.** Nonstatutory Stock Options, Stock Purchase Rights, and Restricted Stock Units may be granted to Employees, Directors and Consultants. Incentive Stock Options may be granted only to Employees, provided that Employees of Affiliates shall not be eligible to receive Incentive Stock Options.

10. The Plan is hereby further amended by adding the following new Section 11-1 immediately following Section 11:

**11-1 Restricted Stock Units.**

(a) **General.** When the Administrator determines that it will offer RSUs under the Plan, it shall advise the individual in writing of the terms, conditions and restrictions related to the offer, including the number of Shares that such person shall be entitled to receive upon conversion of vested RSUs into Shares, the price to be paid, if any, and the time within which such person must accept such offer. The offer to award RSUs shall be accepted by execution of an RSU Agreement in the form determined by the Administrator.

(c) **Other Provisions.** The RSU Agreement shall contain such other terms, provisions and conditions not inconsistent with the Plan as may be determined by the Administrator in its sole discretion; provided, however, that such terms and conditions are (i) not inconsistent with the Plan, and (ii) to the extent RSUs issued under the Plan are subject to Section 409A of the Code, in compliance with the applicable requirements of Section 409A of the Code and the regulations and other guidance issued thereunder. In addition, the provisions of RSU Agreements need not be the same with respect to each Participant.

(d) **Rights as a Stockholder.** Until the issuance of Shares upon conversion of any RSUs (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to RSUs awarded under the Plan. No adjustment will be made for a dividend or other right for which the record date is prior to the date the RSUs are converted into Shares, except as provided in Section 14 of the Plan.

11. Sections 12(a) through (d) of the Plan are hereby amended by deleting each instance of the phrase “exercise of an Option or Stock Purchase Right” in said sections and replacing it with the phrase “exercise or conversion of an Option, Stock Purchase Right, or RSUs”.

12. Section 12(a) of the Plan is hereby further amended by deleting the phrase “(or in the case of the Participant’s death, the person exercising the Option or Stock Purchase Right)” in the first sentence of said section and replacing it with the phrase “(or in the case of the Participant’s death, the person exercising the Option or Stock Purchase Right or receiving Shares upon conversion of vested RSUs)”.

13. Section 12(f) of the Plan is hereby amended by deleting the phrase “the Option or Stock Purchase Right is exercised” and replacing it with the phrase “the Option, Stock Purchase Right, or RSUs are exercised or converted, as applicable, into Shares”.

14. Section 13(a) of the Plan is hereby amended by deleting said section in its entirety and replacing it with the following new Section 13(a):

(a) **General.** Except as set forth in this Section 13, Options, Stock Purchase Rights, and RSUs may not be sold, pledged, assigned, hypothecated, transferred or disposed of in any manner other than by will or by the laws of descent or distribution. The designation of a beneficiary by a Participant will not constitute a transfer. An Option, Stock Purchase Right, or RSUs may be exercised or converted into Shares during the lifetime of the holder of such Option, Stock Purchase Right, or RSUs only by such holder or a transferee permitted by this Section 13.

15. Sections 14(a) through (d), 16(b), and 17 of the Plan are hereby amended by deleting each instance of the phrase “Option or Stock Purchase Right” in said sections and replacing it with the phrase “Option, Stock Purchase Right, or RSUs”.

16. Section 14(c) of the Plan is hereby further amended by deleting each instance of the phrase “equivalent option or right” in said section and replacing it with the phrase “equivalent award”.

17. Section 14(e) of the Plan is hereby amended by deleting said section in its entirety and replacing it with the following new Section 14(e):

(e) **Change of Control.** Notwithstanding any provision of the Plan or any award agreement to the contrary, in the event of a Change of Control, (i) each outstanding Option shall become immediately vested and exercisable, (ii) any outstanding Restricted Stock shall become immediately vested and any repurchase option with respect to such Restricted Stock shall immediately lapse, and (iii) any outstanding RSUs shall become immediately vested, in each case, effective immediately prior to the Change of Control.

18. Section 15 of the Plan is hereby amended by deleting said section in its entirety and replacing it with the following new Section 15:

15. **Time of Granting Awards.** The date of grant of an Option, Stock Purchase Right, or RSUs shall, for all purposes, be the date on which the Administrator makes the determination granting such Option, Stock Purchase Right, or RSUs, or such other date as is determined by the Administrator, provided that in the case of any Incentive Stock Option, the grant date shall be the later of the date on which the Administrator makes the determination granting such Incentive Stock Option or the date of commencement of the Optionee’s employment relationship with the Company. Notice of the determination shall be given to each Employee, Director or Consultant to whom an Option, Stock Purchase Right, or RSUs are so granted within a reasonable time after the date of such grant.

19. Section 16 of the Plan is hereby amended by deleting the phrase “Optionee or holder of Stock Purchase Rights” in said section and replacing it with the phrase “Optionee or holder of Stock Purchase Rights or RSUs”.

20. Section 19 of the Plan is hereby amended by deleting said section in its entirety and replacing it with the following new Section 19:

19. **Agreements.** Options, Stock Purchase Rights, and RSUs shall be evidenced by Option Agreements, Restricted Stock Purchase Agreements, or RSU Agreements, respectively, in such form(s) as the Administrator shall from time to time approve.

21. Section 21 of the Plan is hereby amended by deleting said section in its entirety and replacing it with the following new Section 21:

21. **Information and Documents to Participants.** If required by the Applicable Laws, the Company shall provide financial statements at least annually to each Participant and to each individual who acquired Shares pursuant to the Plan, during the period such Participant has one or more Options, Stock Purchase Rights, or RSUs outstanding, and in the case of an individual who acquired Shares pursuant to the Plan, during the period such individual owns such Shares. The Company shall not be required to provide such information if the issuance of Options, Stock Purchase Rights, or RSUs under the Plan is limited to key employees whose duties in connection with the Company assure their access to equivalent information.

22. Except as expressly amended by this Amendment, the Plan shall continue in full force and effect in accordance with the provisions thereof.

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IN WITNESS WHEREOF, the Company has caused this Amendment to be duly executed as of the date first written above.

**ACTINIUM PHARMACEUTICALS, INC.**

By: /s/ Sandesh Seth

Name: Sandesh Seth

Title: Chairman and Chief Executive Officer



## 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
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	40,000(2)	\$ 12.64(4)	\$ 505,600.00	\$92.70 per \$1,000,000	\$ 46.87
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	25,000(2)	\$ 10.27(4)	\$ 256,750.00	\$92.70 per \$1,000,000	\$ 23.80
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	45,000(2)	\$ 7.32(4)	\$ 329,400.00	\$92.70 per \$1,000,000	\$ 30.54
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	25,000(2)	\$ 7.46(4)	\$ 186,500.00	\$92.70 per \$1,000,000	\$ 17.29
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	250(2)	\$ 6.76(4)	\$ 1,690.00	\$92.70 per \$1,000,000	\$ 0.16
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	250(2)	\$ 6.93(4)	\$ 1,732.50	\$92.70 per \$1,000,000	\$ 0.16
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	167(2)	\$ 6.16(4)	\$ 1,028.72	\$92.70 per \$1,000,000	\$ 0.10

Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	520,152(2)	\$	6.07(4)	\$	3,157,322.64	\$92.70 per \$1,000,000	\$	292.68
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	100,000(2)	\$	6.02(4)	\$	602,000	\$92.70 per \$1,000,000	\$	55.81
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	250(2)	\$	6.68(4)	\$	1,670.00	\$92.70 per \$1,000,000	\$	0.15
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	50,000(2)	\$	7.40(4)	\$	370,000.00	\$92.70 per \$1,000,000	\$	34.30
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	167(2)	\$	8.58(4)	\$	1,432.86	\$92.70 per \$1,000,000	\$	0.13
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	250(2)	\$	8.03(4)	\$	2,007.50	\$92.70 per \$1,000,000	\$	0.19
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	250(2)	\$	7.74(4)	\$	1,935.00	\$92.70 per \$1,000,000	\$	0.18
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	5,000(2)	\$	5.93(4)	\$	29,650.00	\$92.70 per \$1,000,000	\$	2.75
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	150(2)	\$	5.20(4)	\$	780.00	\$92.70 per \$1,000,000	\$	0.07
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	250(2)	\$	5.40(4)	\$	1,350.00	\$92.70 per \$1,000,000	\$	0.13
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	115,000(2)	\$	5.20(4)	\$	598,000.00	\$92.70 per \$1,000,000	\$	55.43

Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	1,669,704(2)	\$	4.96(4)	\$	8,281,731.84	\$92.70 per \$1,000,000	\$	767.72
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	20,250(2)	\$	4.97(4)	\$	100,642.50	\$92.70 per \$1,000,000	\$	9.33
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	40,000(2)	\$	5.03(4)	\$	201,200.00	\$92.70 per \$1,000,000	\$	18.65
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	30,000(2)	\$	4.99(4)	\$	149,700.00	\$92.70 per \$1,000,000	\$	13.88
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	250(2)	\$	6.02(4)	\$	1,505.00	\$92.70 per \$1,000,000	\$	0.14
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	300,000(2)	\$	5.85(5)	\$	1,755,000.00	\$92.70 per \$1,000,000	\$	162.69
Actinium Pharmaceuticals, Inc. 2019 Stock Plan, as amended	Equity	Common stock, par value \$0.001 per share	Other	2,845,993(3)	\$	5.84(6)	\$	16,620,599.12	\$92.70 per \$1,000,000	\$	1,540.73
Total Offering Amounts								\$ 33,159,227.68		\$	3,073.88
Total Fee Offsets (7)										\$	0.00
Net Fee Due										\$	3,073.88

- (1) In accordance with Rule 416 under the Securities Act of 1933, as amended (the “Securities Act”), we are also registering an indeterminate 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 equity awards outstanding under the Actinium Pharmaceuticals’ Inc. 2019 Plan, as amended (the “2019 Plan”).
- (3) Represents shares of common stock available for issuance pursuant to unissued equity awards under the 2019 Plan.
- (4) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(h) under the Securities Act of 1933, as amended, and based upon the price at which such options may be exercised.
- (5) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(h) under the Securities Act of 1933, as amended, and based upon the market price of such restricted stock units as of the date of grant.
- (6) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) and Rule 457(h) under the Securities Act with respect to 2,845,993 shares of common stock available for issuance pursuant to unissued equity awards under the 2019 Plan based on the average of the high and low prices per share of common stock as reported by NYSE American on August 17, 2022.
- (7) The Registrant does not have any fee offsets.