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

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended **June 30, 2015**

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____

Commission File Number: **000-52446**

ACTINIUM PHARMACEUTICALS, INC.
(Exact name of registrant as specified in its charter)

Delaware	**74-2963609**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
757 Third Avenue, 21st Floor New York, NY	**10017**
(Address of Principal Executive Offices)	(Zip Code)

(732) 243-9495
(Registrant's Telephone Number, Including Area Code)

(Former Name, Former Address and Former Fiscal Year, if Changed Since Last Report)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

☒ Yes No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

☒ Yes No ☐

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

Large accelerated filer	☐	Accelerated filer	☒
Non-accelerated filer (Do not check if a smaller reporting company)	☐	Smaller reporting company	☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

☐ Yes ☒ No

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of August 6, 2015: 40,635,854.00

Actinium Pharmaceuticals, Inc.
FORM 10-Q
For quarter period ended June 30, 2015

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PART I - FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

The accompanying consolidated financial statements have been prepared by the Company and are unaudited. In the opinion of management, all adjustments (which include only normal recurring adjustments) necessary to present fairly the financial position, results of operations and cash flows at June 30, 2015 and December 31, 2014 and for the three and six months ended June 30, 2015 and 2014 have been made. Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted. It is suggested that these financial statements be read in conjunction with the financial statements and notes thereto included in the Company's audited financial statements for the year ended December 31, 2014, filed with the SEC in the Company's Annual Report on Form 10-K on March 16, 2015. The results of operations for the six months ended June 30, 2015 are not necessarily indicative of the operating results for the full year.

Actinium Pharmaceuticals, Inc.
Consolidated Balance Sheets
(Unaudited)

	June 30, 2015	December 31, 2014
Assets		
Current Assets:		
Cash and cash equivalents	$ 25,952,056	$ 6,706,802
Prepaid expenses and other current assets	257,513	699,851
Total Current Assets	26,209,569	7,406,653
Property and equipment, net of accumulated depreciation	86,159	127,700
Restricted cash	34,733	34,733
Total Assets	**$ 26,330,461**	**$ 7,569,086**
Liabilities and Stockholders' Equity (Deficit)		
Current Liabilities:		
Accounts payable and accrued expenses	$ 1,011,157	$ 2,283,796
Accounts payable and accrued expenses - related parties	25,000	214,357
Notes payable	92,267	283,552
Derivative liabilities	1,922,510	6,709,911
Total Current Liabilities	3,050,934	9,491,616
Total Liabilities	3,050,934	9,491,616
Commitments and contingencies		
Stockholders' Equity (Deficit):		
Preferred stock, $0.001 par value; 50,000,000 authorized, 0 shares issued and outstanding	-	-
Common stock, $0.001 par value; 200,000,000 shares authorized; 40,486,876 and 29,971,839 shares issued and outstanding, respectively	40,486	29,972
Additional paid-in capital	124,982,403	89,252,262
Accumulated deficit	(101,743,362)	(91,204,764)
Total Stockholders' Equity (Deficit)	23,279,527	(1,922,530)
Total Liabilities and Stockholders' Equity (Deficit)	**$ 26,330,461**	**$ 7,569,086**

See accompanying notes to the unaudited consolidated financial statements.

Actinium Pharmaceuticals, Inc.
Consolidated Statements of Operations
(Unaudited)

	For the Three Months Ended June 30,		For the Six Months Ended June 30,	
	2015	**2014**	**2015**	**2014**
Revenue	$ —	$ —	$ —	$ —
Operating expenses:				
Research and development, net of reimbursements	3,837,959	2,130,625	7,886,673	3,720,401
General and administrative	3,550,361	2,285,939	7,356,766	4,833,184
Depreciation expense	16,194	8,052	26,589	9,457
Total operating expenses	7,404,514	4,424,616	15,270,028	8,563,042
Loss from operations	(7,404,514)	(4,424,616)	(15,270,028)	(8,563,042)
Other income (expense):				
Interest expense	(1,553)	—	(7,280)	—
Gain (loss) on change in fair value of derivative liabilities	(57,668)	7,939,711	4,738,710	(4,621,360)
Total other income (expense)	(59,221)	7,939,711	4,731,430	(4,621,360)
Net (loss) income	**$ (7,463,735)**	**$ 3,515,095**	**$ (10,538,598)**	**$ (13,184,402)**
Net (loss) income per common share - basic	$ (0.20)	$ 0.14	$ (0.30)	$ (0.52)
Net (loss) income per common share - diluted	$ (0.20)	$ 0.10	$ (0.30)	$ (0.52)
Weighted average common shares outstanding - basic	36,650,803	25,795,573	34,959,125	25,513,505
Weighted average common shares outstanding - diluted	36,650,803	35,862,173	34,959,125	25,513,505

See accompanying notes to the unaudited consolidated financial statements.

Actinium Pharmaceuticals, Inc.
Consolidated Statements of Cash Flows
(Unaudited)

	For the Six Months Ended June 30,	
	2015	**2014**
Cash Flows From Operating Activities:		
Net loss	$ (10,538,598)	$ (13,184,402)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation expense	5,174,221	3,141,144
Depreciation expense	26,589	9,457
Loss (gain) on change in fair value of derivative	(4,738,710)	4,621,360
Changes in operating assets and liabilities:		
(Increase) decrease in:		
Prepaid expenses and other current assets	442,338	(424,449)
Increase (decrease) in:		
Accounts payable and accrued expenses	(1,256,728)	666,466
Accounts payable and accrued expenses - related parties	(189,357)	108,352
Net Cash Used In Operating Activities	(11,080,245)	(5,062,072)
Cash Flows From Investing Activities:		
Purchase of property and equipment	(959)	(128,439)
Net Cash Used In Investing Activities	(959)	(128,439)
Cash Flows From Financing Activities:		
Payments on note payable	(191,285)	(102,855)
Sales of common stock, net of offering costs	30,475,013	14,328,725
Proceeds from exercise of options	15,680	—
Proceeds from the exercise of warrants	27,050	102,088
Net Cash Provided By Financing Activities	30,326,458	14,327,958
Net change in cash	19,245,254	9,137,447
Cash and cash equivalents at beginning of period	6,706,802	5,533,366
Cash and cash equivalents at end of period	**$ 25,952,056**	**$ 14,670,813**
Supplemental disclosures of cash flow information:		
Cash paid for interest	$ 7,280	$ —
Cash paid for income taxes	$ —	$ —
Supplemental disclosure of non-cash investing and financing activities:		
Fair value of warrants issued with stock	$ 4,738,710	$ —
Conversion of notes payable and accrued interest to stock	$ —	$ 1,501,988
Transfer warrant derivatives from liability to equity classification	$ 48,691	$ 30,000

See accompanying notes to the unaudited consolidated financial statements.

Actinium Pharmaceuticals, Inc.
Notes to Consolidated Financial Statements
(Unaudited)

Note 1 - Description of Business and Summary of Significant Accounting Policies

Nature of Business - Actinium Pharmaceuticals, Inc. (the "Company" or "Actinium") is a biotechnology company committed to developing breakthrough therapies for life threatening diseases using its alpha particle immunotherapy ("APIT") platform and other related and similar technologies. Actinium, together with its wholly owned subsidiary, MedActinium, Inc., is hereinafter referred to collectively as "Actinium" or the "Company". We have initiated collaborative efforts with large institutions to establish the proof of concept of APIT and have supported one Phase 1/2 clinical trial and one Phase 1 clinical trial at Memorial Sloan-Kettering Cancer Center ("MSKCC") under an MSKCC Physician IND Application. In 2012, Actinium launched a multi-center corporate sponsored trial in acute myeloid leukemia patients. Actinium's objective, through research and development, is to produce reliable cancer fighting products which utilize monoclonal antibodies linked with alpha particle emitters or other appropriate payloads to provide very potent targeted therapies. The initial clinical trials of Actinium's compounds have been with patients having acute myeloid leukemia and it is believed that Actinium's APIT platform will have wider applicability for different types of cancer where suitable monoclonal antibodies can be found.

On December 28, 2012, the Company entered into a transaction (the "Share Exchange"), pursuant to which the Company acquired 100% of the issued and outstanding equity securities of Actinium Pharmaceuticals, Inc. ("API"), in exchange for the issuance of approximately 99% of the issued and outstanding common stock, par value $0.001 per share, of the Company. As a result of the Share Exchange, the Company was then considered a holding company operating through API, a clinical-stage biopharmaceutical company developing certain cancer treatments.

On March 20, 2013, the Company's subsidiary, Actinium Pharmaceuticals, Inc., changed its name to Actinium Corporation. On April 11, 2013, the Company changed its domicile from the State of Nevada to the State of Delaware and changed its name from Cactus Ventures, Inc. to Actinium Pharmaceuticals, Inc.

On September 25, 2013, in accordance with a Certificate of Ownership Merging Actinium Corporation into the Actinium Pharmaceuticals, Inc. filed in Delaware, the Company merged (the "Merger") into itself Actinium Corporation (a 93.7% owned subsidiary), and Actinium Corporation ceased to exist. As a result of the Merger, Actinium Corporation stock owned by the Company was cancelled and each share of Actinium Corporation not owned by the Company was exchanged for 0.333 shares of Company's common stock. A total of 3,970,137 shares of Actinium Corporation common stock was exchanged for 1,322,055 shares of Company common stock.

Basis of Presentation - Unaudited Interim Financial Information – The accompanying unaudited interim consolidated financial statements and related notes have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") for interim financial information, and in accordance with the rules and regulations of the United States Securities and Exchange Commission (the "SEC") with respect to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by U.S. GAAP for complete financial statements. The unaudited interim consolidated financial statements furnished reflect all adjustments (consisting of normal recurring adjustments) which are, in the opinion of management, necessary for a fair statement of the results for the interim periods presented. Interim results are not necessarily indicative of the results for the full year. These unaudited interim consolidated financial statements should be read in conjunction with the audited consolidated financial statements of the Company for the year ended December 31, 2014 and notes thereto contained in the Company's annual report on Form 10-K for the year ended December 31, 2014, as filed with the SEC on March 16, 2015.

Principles of Consolidation - The consolidated financial statements include the Company's accounts and those of the Company's wholly owned subsidiaries. All significant intercompany accounts and transactions have been eliminated.

Use of Estimates in Financial Statement Presentation - The preparation of these consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Reclassification - Certain prior period amounts have been reclassified to conform to current period presentation.

Cash and Cash Equivalents - The Company considers all highly liquid accounts with original maturities of three months or less to be cash equivalents. Balances held by the Company are typically in excess of FDIC insured limits. At June 30, 2015 and December 31, 2014, all of the Company's cash was deposited in one bank.

Property and Equipment - Machinery and equipment are recorded at cost and depreciated on a straight-line basis over estimated useful lives of three years. Furniture and fixtures are recorded at cost and depreciated on a straight-line basis over estimated useful lives of three years. When assets are retired or sold, the cost and related accumulated depreciation are removed from the accounts, and any related gain or loss is reflected in operations. Repairs and maintenance expenditures are charged to operations.

Impairment of Long-Lived Assets - Management reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount may not be realizable or at a minimum annually during the fourth quarter of the year. If an evaluation is required, the estimated future undiscounted cash flows associated with the asset are compared to the asset's carrying value to determine if an impairment of such asset is necessary. The effect of any impairment would be to expense the difference between the fair value of such asset and its carrying value.

Derivatives - All derivatives are recorded at fair value on the balance sheet. Fair values for securities traded in the open market and derivatives are based on quoted market prices. Where market prices are not readily available, fair values are determined using market based pricing models incorporating readily observable market data and requiring judgment and estimates.

Fair Value of Financial Instruments - Fair value is defined as the price that would be received to sell an asset, or paid to transfer a liability, in an orderly transaction between market participants. A fair value hierarchy has been established for valuation inputs that gives the highest priority to quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs. The fair value hierarchy is as follows:

Level 1 Inputs - Unadjusted quoted prices in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date.

Level 2 Inputs - Inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. These might include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the asset or liability (such as interest rates, volatilities, prepayment speeds, credit risks, etc.) or inputs that are derived principally from or corroborated by market data by correlation or other means.

Level 3 Inputs - Unobservable inputs for determining the fair values of assets or liabilities that reflect an entity's own assumptions about the assumptions that market participants would use in pricing the assets or liabilities.

The following tables set forth assets and liabilities measured at fair value on a recurring and non-recurring basis by level within the fair value hierarchy as of June 30, 2015 and December 31, 2014. As required by ASC 820 "*Fair Value Measurements and Disclosures"*, financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company's assessment of the significance of a particular input to the fair value measurement requires judgment, and may affect the valuation of fair value assets and liabilities and their placement within the fair value hierarchy levels.

	Level 1	Level 2	Level 3	Total
Derivative liabilities:				
At June 30, 2015	$ -	$ -	$ 1,922,510	$ 1,922,510
At December 31, 2014	-	-	6,709,911	6,709,911

Income Taxes - The Company uses the asset and liability method in accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on differences between financial reporting and income tax carrying amounts of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The Company reviews deferred tax assets for a valuation allowance based upon whether it is more likely than not that the deferred tax asset will be fully realized. A valuation allowance, if necessary, is provided against deferred tax assets, based upon management's assessment as to their realization.

Research and Development Costs - Research and development costs are expensed as incurred. Research and development reimbursements and grants are recorded by the Company as a reduction of research and development costs. For the three months ended June 30, 2015 and 2014, the Company incurred approximately $3.8 million and $2.1 million of research and development costs, respectively. For the six months ended June 30, 2015 and 2014, the Company incurred approximately $7.9 million and $3.7 million of research and development costs, respectively.

Share-Based Payments - The Company estimates the fair value of each stock option award at the grant date by using the Black-Scholes option pricing model. The fair value determined represents the cost for the award and is recognized over the vesting period during which an employee is required to provide service in exchange for the award. As share-based compensation expense is recognized based on awards ultimately expected to vest, the Company reduces the expense for estimated forfeitures based on historical forfeiture rates. Previously recognized compensation costs may be adjusted to reflect the actual forfeiture rate for the entire award at the end of the vesting period. Excess tax benefits, if any, are recognized as an addition to paid-in capital.

Earnings (Loss) Per Common Share - The Company calculates net loss per common share in accordance with ASC 260 "Earnings Per Share" ("ASC 260"). Basic earnings (loss) per common share is computed by dividing the net income (loss) available to common stockholders by the weighted average number of common shares outstanding during the reporting period. Diluted earnings per common share, as calculated for the three months ended June 30, 2014, is computed by dividing the net income available to common stockholders by the weighted average number of common shares outstanding plus dilutive securities. For the three months ended June 30, 2015 and the six months ended June 30, 2015 and 2014, the Company's potentially dilutive shares, which include outstanding common stock options and warrants have not been included in the computation of diluted net loss per share for all periods with a net loss as the result would be anti-dilutive.

	June 30, 2015	June 30, 2014
Options	3,896,583	2,952,829
Warrants	9,851,580	9,418,058
Total	13,748,163	12,370,887

Recent Accounting Pronouncements – In April 2015, the FASB issued an Accounting Standards Update that requires debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The guidance is effective for annual and interim reporting periods beginning after December 15, 2015, but early adoption is permitted. The Company is currently evaluating the effects of ASU 2015-03 on the consolidated financial statements.

Subsequent Events - The Company's management reviewed all material events through the date of the consolidated financial statements were issued for subsequent event disclosure consideration.

Note 2 - Related Party Transactions

MSKCC:

On February 11, 2002, the Company entered into a License, Development and Commercialization Agreement with Sloan-Kettering Institute of Cancer Research ("SKI"), an entity related to MSKCC, a majority shareholder of the Company. The agreement was amended in August 2006. Pursuant to the agreement, the Company licensed certain intellectual property from SKI, including critical patents with respect to the Company's core technology that also supports ongoing research and clinical development of related drug candidates. MSKCC agreed, subject to certain conditions, to utilize the funds paid for certain clinical and preclinical programs and activities related to the Company's drug development and clinical study programs, including the payment of certain costs and expenses that would otherwise have been borne by the Company.

The Company is obligated to make the following milestone payments:

Milestones	Payments
(1) filing of an New Drug Application ("NDA") or regulatory approval for each licensed product	$ 750,000
(2) upon the receipt of regulatory approval from the U.S. FDA for each licensed product	1,750,000

Under the agreement, the Company shall pay to MSKCC on a country-by-country basis a royalty of 2% of net sales of all licensed products until the later of: (1) 10 years from the first commercial sale, or (2) when the patents expire.

For the three months ended June 30, 2015 and 2014, the Company incurred $180 and $0, respectively, for maintenance fees and research conducted by MSKCC. For the six months ended June 30, 2015 and 2014, the Company incurred approximately $145,255 and $189,537, respectively, for maintenance fees and research conducted by MSKCC. As of June 30, 2015 and December 31, 2014, the Company has a payable to MSKCC covering the annual maintenance costs, clinical trials expense and patent costs totaling $0 and $189,537, respectively.

Placement Agent:

On December 9, 2013, the Company entered into an engagement agreement with a Healthcare Investment Bank as its placement agent for the 2013 Common Stock Offering whereby a director of the Company is the former Head of its Healthcare Investment Banking team ("the 2013 Offering"). The 2013 Offering was completed in two tranches, December 9, 2013 and January 10, 2014. The agreement entered in on December 9, 2013 included a cash fee equal to 10% of the gross proceeds raised, a non-accountable expense reimbursement equal to 2% of the gross proceeds raised and warrants to purchase shares of the Company's Common Stock in an amount equal to 10% of the shares of common stock issued or issuable. Subsequent to the closing of the 2013 Offering, the placement agent continued to provide certain financial advisory services to the Company until three months after the Company had up-listed its securities for trading on a U.S. National Exchange for a monthly fee of $25,000. On May 28, 2014, the Company and the placement agent agreed to terminate the December 9, 2013 engagement agreement. As of June 30, 2015 and December 31, 2014, the Company owed its placement agent $25,000.

On February 11, 2015 the Company completed a public offering that totaled 4,444,444 common shares, representing gross proceeds of approximately $20.0 million and a net amount of approximately $18.5 million after deducting the underwriting discount and the other offering expenses. The Placement Agent acted as the sole book-running manager for the offering. The Placement Agent also acted as the lead manager and MLV & Co. acted as a co-manager. The offering was made pursuant to a shelf registration statement previously filed with and declared effective by the U.S. Securities and Exchange Commission. The placement agent received a cash fee of approximately $1.4 million.

On June 9, 2015, the Company completed a registered direct offering of $5.0 million of its common stock. Under the terms of the subscription agreements, the Company issued an aggregate of 1,923,078 shares of the Company's common stock at a purchase price of $2.60 per share. The Placement Agent acted as the sole placement agent with respect to the offering. The Placement Agent received a cash fee of approximately $0.4 million.

Note 3 - Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consisted of the following at June 30, 2015 and December 31, 2014:

	June 30, 2015	December 31, 2014
Security deposit	$ 19,140	$ 11,350
Prepaid insurance	179,887	368,223
Other prepaid expenses	58,486	320,278
Total prepaid expenses and other current assets	$ 257,513	$ 699,851

Note 4 - Property and Equipment

Property and equipment consisted of the following at June 30, 2015 and December 31, 2014:

	Lives	June 30, 2015	December 31, 2014
Lab equipment	3 years	$ 92,802	$ 108,713
Office equipment	3 years	59,414	58,455
Less: accumulated depreciation		(66,057)	(39,468)
Property and equipment, net		$ 86,159	$ 127,700

Depreciation expense for the six months ended June 30, 2015 and 2014 was $26,589 and $9,457, respectively.

Note 5 - Note Payable

On December 28, 2013, the Company entered into a premium finance agreement to pay a $157,825 premium for its director and officer liability insurance policy. Pursuant to the agreement, the Company paid a down payment of $15,995 in January 2014 and was required to pay $15,995 in nine monthly installments.

On October 25, 2014, the Company entered into a premium finance agreement for its multiple commercial insurance policies in the amount of $43,075. Pursuant to the agreement, the Company is required to pay $4,882 in monthly installments for nine months. On December 28, 2014, the Company entered into a premium finance agreement for its director and officer liability insurance policy in the amount of $244,493. Pursuant to the agreement, the Company is required to pay $27,614 in monthly installments for nine months.

As of June 30, 2015 and December 31, 2014, the outstanding balance related to the premium finance agreements was $92,267 and $283,552, respectively. For the six months ended June 30, 2015 and 2014, the Company paid $191,285 and $102,855, respectively.

Note 6 - Derivatives

The Company has determined that certain warrants the Company has issued contain provisions that protect holders from future issuances of the Company's common stock at prices below such warrants' respective exercise prices and these provisions could result in modification of the warrants' exercise price based on a variable that is not an input to the fair value of a "fixed-for-fixed" option as defined under FASB ASC Topic No. 815 - 40. The warrants granted in connection with the issuance of the 2012 Common Stock Offering, and the placement agent warrants contain anti-dilution provisions that provide for a reduction in the exercise price of such warrants in the event that future common stock (or securities convertible into or exercisable for common stock) is issued (or becomes contractually issuable) at a price per share (a "Lower Price") that is less than the exercise price of such warrant at the time. The amount of any such adjustment is determined in accordance with the provisions of the warrant agreement and depends upon the number of shares of common stock issued (or deemed issued) at the Lower Price and the extent to which the Lower Price is less than the exercise price of the warrant at the time.

Activities for derivative warrant instruments during the six months ended June 30, 2015 were as follows:

	Shares subject to warrants	Fair Value
Balance, December 31, 2014	1,649,329	$ 6,709,911
Transfer from liability to equity classification	(21,960)	(48,691)
Change in fair value	-	(4,738,710)
Balance, June 30, 2015	1,627,369	$ 1,922,510

During the six months ended June 30, 2015, 1,115,810 warrants were exercised, of which 21,960 were derivative warrants. The fair value of these derivative warrants totaling $48,691 were measured on the various exercise dates and reclassified to additional paid-in capital.

The fair values of the derivative warrants were calculated using a modified binomial valuation model with the following assumptions at each balance sheet date.

	June 30, 2015	December 31, 2014
Market value of common stock on measurement date (1)	$ 2.65	$ 5.89
Adjusted exercise price	$ 2.48	$ 2.48
Risk free interest rate (2)	0.83%	1.10%
Warrant lives in years	2.50 years	3.00 years
Expected volatility (3)	70%	71%
Expected dividend yield (4)	-	-
Probability of stock offering in any period over 5 years (5)	100%	100%
Offering price (6)	$ 2.60	$ 4.50

(1) The market value of common stock at the above measurement dates is based on the Company's trading price quoted on the NYSE MKT.

(2) The risk-free interest rate was determined by management using the Treasury Bill rate as of the respective measurement date.

(3) Because the Company does not have adequate trading history to determine its historical trading volatility, the volatility factor was estimated by management using the historical volatilities of comparable companies in the same industry and region.

(4) Management determined the dividend yield to be 0% based upon its expectation that it will not pay dividends for the foreseeable future.

(5) Management determines the probability of future stock offering at each evaluation date.

(6) Represents the estimated offering price in future offerings as determined by management.

Note 7 - Commitments and Contingencies

License and Research Agreements

The Company has entered into license and research and development agreements with third parties under which the Company is obligated to make upfront payments as well as milestone and royalty payments. Notable inclusions in this category are:

a. AbbVie Biotherapeutics Corp. (formerly Abbott Biotherapeutics Corp) - The Company entered into a Product Development and Patent License Agreement with AbbVie Biotherapeutics Corp. in 2003 to secure exclusive rights to a specific antibody when conjugated with alpha emitting radioisotopes. Upon execution of the agreement, the Company made a license fee payment of $3,000,000.

The Company agreed to make milestone payments totaling $7,750,000 for the achievement of the following agreed to and contracted milestones:

Milestones	Payments
(1) when Company initiates a Phase 1 Clinical Trial of a licensed product	$ 750,000
(2) when Company initiates a Phase 2 Clinical Trial of a licensed product	750,000
(3) when Company initiates a Phase 3 Clinical Trial of a licensed product	1,500,000
(4) Biological License Application filing with U.S. FDA	1,750,000
(5) First commercial sale	1,500,000
(6) after the first $10,000,000 in net sales	1,500,000

Under the agreement, the Company shall pay to AbbVie Biotherapeutics Corp. on a country-by-country basis a royalty of 12% of net sales of all licensed products until the later of: (1) 12.5 years after the first commercial sale, or (2) when the patents expire.

The Company met its first milestone in 2012 and upon reaching the milestone the Company paid AbbVie Biotherapeutics Corp. a milestone payment of $750,000 on July 24, 2012. The milestone payment for the Phase 1 Clinical Trial was recorded as research and development expense. The Company has not initiated a Phase 2 Clinical Trial and no payment has been made to AbbVie Biotherapeutics Corp. since the July 24, 2012 payment.

b. MSKCC - see Note 2 - Related Party Transactions.

c. AptivSolutions provides project management services for the study of the drug Ac-225-HuM195 (Actimab-A) used in the Company's Phase 1 and Phase 2 clinical trials. The total project was estimated to cost approximately $1.9 million and requires a 12.5% down payment of the total estimated project cost. The down payment totaling $239,000 was paid in 2007 and 2012. On August 6, 2012, October 22, 2012 and May 16, 2013, the agreement was amended to provide for additional services. The total project is estimated at approximately $2.7 million. AptivSolutions bills the Company when services are rendered and the Company records the related expense to research and development costs.

For each of the six months ended June 30, 2015 and 2014, the Company incurred expenses of approximately $200,000 related to this agreement.

d. On June 15, 2012, the Company entered into a license and sponsored research agreement with Fred Hutchinson Cancer Research Center ("FHCRC") to build upon previous and ongoing clinical trials, with BC8 (licensed antibody). FHCRC has currently completed both a Phase 1 and Phase 2 clinical trial with BC8 and the Company intends to start preparation for a pivotal trial leading to an FDA approval. The Company has been granted exclusive rights to the BC8 antibody and related master cell bank developed by FHCRC. The cost to develop the trial will range from $13.2 million to $23.5 million, depending on the trial design as required by the FDA. Under the terms of the sponsored research agreement, the Company will fund the FHCRC lab with $150,000 per year for the first two years and $250,000 thereafter. Payments made toward funding the lab will be credited toward royalty payments owed to FHCRC in the given year. A milestone payment of $1 million will be due to FHCRC upon FDA approval of the first drug. Upon commercial sale of the drug, royalty payments of 2% of net sales will be due to FHCRC.

For six months ended June 30, 2015 and 2014, the Company incurred expenses of approximately $169,000 and $75,000, respectively, related to this agreement.

e. On August 28, 2012, the Company entered into a clinical trial agreement with The University of Texas M.D. Anderson Cancer Center. The total estimated cost of conducting the clinical trial is approximately $500,000, which includes a non-refundable institutional fee of $14,500. The estimated cost is based on treating 24 patients through 2013. Upon execution of the agreement, the Company paid $33,946. During 2013, there was one patient treated and the Company paid $34,383 in July 2013. There were no expenses recorded during the three or six months ended June 30, 2015 and 2014.

f. On February 27, 2014, the Company entered into a manufacturing agreement with Goodwin Biotechnology Inc. ("Goodwin"). Goodwin will oversee the current Good Manufacturing Practices (cGMP) production of a monoclonal antibody anticipated to be used in an upcoming phase 3 clinical trial of Iomab-B. Total cost of the agreement is $3.3 million. The Company made a non-refundable payment of $562,790 upon execution of the agreement. Periodic payments will be made upon reaching certain milestones. As of June 30, 2015, the remaining cost of the agreement is approximately $1.8 million. Goodwin bills the Company when services are rendered and the Company records the related expense to research and development costs. For the six months ended June, 2015 and 2014, the Company paid Goodwin approximately $3.5 million and $1.0 million, respectively. As of June 30, 2015 and December 31, 2014, the Company owed $0.2 million and $0.1 million, respectively, to Goodwin.

g. On June 20, 2014, the Company entered into a CRO agreement with Act Oncology. Act Oncology provided project management services for the study of Iomab-B used for the intended Phase 3 clinical trial. The total project is estimated to cost approximately $0.8 million. Act Oncology billed the Company when services were rendered and the Company recorded the related expense to research and development costs. During the first quarter of 2015, the Company terminated the agreement with Act Oncology and no additional payments are expected.

h. On September 30, 2014, the Company entered into a research agreement with the Albert Einstein College of Medicine of Yeshiva University (“Einstein”). According to the agreement, Einstein will use certain materials provided by the Company to complete a research project. The research project will explore the feasibility of using Actinium 225 to prepare patients with blood borne cancers to receive a hematopoietic stem cell transplant. Einstein will periodically provide the Company with reports showing project data or research. The total fixed price of the project is $183,391 which is payable to Einstein in three payments. During the three months ended June 30, 2015 and 2014, the Company paid Einstein approximately $55,000 and $0, respectively. No payments were made during the second quarter of 2015. As of June 30, 2015, the Company paid Einstein a total of $146,713.

Lease Agreements

On June 4, 2013 and amended on October 4, 2013, the Company entered into two rental agreements for office space at 546 Fifth Avenue, New York, NY. One of the agreements was terminated on July 6, 2014. The second rental agreement was terminated June 30, 2015 with an effective date of August 31, 2015. The Company paid a one month refundable deposit on the space that it maintained at 546 Fifth Ave, New York, NY.

On June 30, 2015 and July 1, 2015, the Company entered into two separate three month rental agreements for office space at 757 3rd Avenue, New York, NY. The Company paid a one month refundable deposit on the space that it maintains in New York, NY.

On April 22, 2014, the Company entered into a sublease agreement for office space located at 379 Thornall Street, Edison, NJ. This agreement expires on September 30, 2016. The Company issued a letter of credit for $34,733 to the existing tenant and maintained a $34,733 certified deposit as collateral for the letter of credit.

Future minimum obligations on the lease are:

For the year ending June 30, 2016	$ 135,385
For the year ending June 30, 2017	28,004
	$ 163,389

Note 8 - Equity

On June 9, 2015, the Company closed a financing with certain investors in which it raised approximately $5,000,000 in gross proceeds or $4,480,000 in net proceeds, after deducting placement agent's fees and other offering expenses. Investors purchased 1,923,078 shares of the Company's common stock, at a price per share of $2.60.

On February 11, 2015, the Company completed an underwritten offering of 4,444,444 shares of its common stock and warrants to purchase an aggregate of 3,333,333 shares of its common stock at a price to the public of $4.50 per share. The warrants will be exercisable for a period of 4 years at an exercise price of $6.50 per share and have a relative fair value of $3,540,659 on the issuance date. The Company received net proceeds of approximately $18.5 million, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, and excluding the underwriters' over-allotment option. In addition, the Company granted the underwriters a 30-day option to purchase up to an additional 666,666 shares of common stock and warrants to purchase 499,999 shares of common stock solely to cover over-allotments, if any. The underwriter did not exercise the over-allotment option.

On March 24, 2014, the Company filed a shelf registration statement on Form S-3 (the "Registration Statement") and deemed effective on April 17, 2014. This Registration Statement contained two prospectuses: (i) a base prospectus which covers the offering, issuance and sale by the Company of up to $200,000,000 of its common stock, preferred stock, warrants and/or units; and (ii) a sales agreement prospectus covering the offering, issuance and sale by the Company of up to a maximum aggregate offering price of $75,000,000 of its common stock that may be issued and sold under a sales agreement (the "Sales Agreement") with MLV & Co. LLC ("MLV"). During the quarter ended June 30, 2015, the Company issued 2,609,001 shares of common stock for gross proceeds of $7,742,451 (net proceeds of $7,510,012). Since inception through June 30, 2015, the Company issued 2,609,501 shares of common stock for gross proceeds of $7,748,451.

During the six months ended June 30, 2015, the Company issued 1,021,577 common shares for cashless exercise of warrants. During the six months ended June 30, 2015, the Company issued 54,680 common shares for $42,730 cash received from the exercise of options and warrants.

Restricted Stock

During the six months ended June 30, 2015, the Company granted 374,889 shares of restricted common stock to consultants with a fair value of $2,101,582 based on the stock price on the grant dates. Of the 374,889 restricted share awards granted in 2015, 299,889 shares vested at the date of grant and 75,000 shares vest over a six-month vesting period.

During the six months ended June 30, 2015, the Company cancelled 126,265 shares of restricted stock originally granted to employees and issued a total of 152,499 options (see below). As a result of the cancellation of these shares, the Company recorded an expense of $852,681 for the grant-date fair value of the restricted stock for which the requisite service is expected to be rendered.

During the three months ended June 30, 2015 and 2014, the Company recorded approximately $2 million and $0, respectively, in stock-based compensation in relation to these restricted shares. During the six months ended June 30, 2015 and 2014, the Company recorded approximately $3.2 million and $0, respectively, in stock-based compensation in relation to these restricted shares.

During the six months ended June 30, 2015, the Company issued common shares totaling 462,257 for restricted shares previously granted.

Stock Options

Following is a summary of option activities for the six months ended June 30, 2015:

	Number of Units	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Outstanding, December 31, 2014	3,013,084	$ 5.98	8.35	$ 4,728,842
Granted	964,499	3.17	9.74	21,825
Cancelled	(61,000)	6.10		
Exercised	(20,000)	0.78		
Outstanding, June 30, 2015	3,896,583	5.31	8.31	1,555,719
Exercisable, June 30, 2015	1,624,166	4.11	7.89	$ 1,287,708

On February 18, 2015, the Company granted its employees and board members 531,000 options to purchase the Company's common stock at an exercise price of $3.58 per share, a term of 10 years, and a vesting period of 4 years. The options have an aggregated fair value of $1.4 million that was calculated using the Black-Scholes option-pricing model. Variables used in the Black-Scholes option-pricing model include: (1) discount rate of 1.69% (2) expected life of 6 years, (3) expected volatility of 86.29%, and (4) zero expected dividends. During the six months ended June 30, 2015, the Company recorded $127,188 in stock-based compensation in relation to these options.

On March 9, 2015, the Company granted an employee 5,000 options to purchase the Company's common stock at an exercise price of $2.91 per share, a term of 10 years, and a vesting period of 4 years. The options have an aggregated fair value of $11,000 that was calculated using the Black-Scholes option-pricing model. Variables used in the Black-Scholes option-pricing model include: (1) discount rate of 1.83% (2) expected life of 6 years, (3) expected volatility of 86.29%, and (4) zero expected dividends. During the three months ended June 30, 2015, the Company recorded $658 in stock-based compensation in relation to these options. During the six months ended June 30, 2015, the Company recorded $817 in stock-based compensation in relation to these options.

On May 4, 2015, the Company granted an employee 200,000 options to purchase the Company's common stock with an exercise price of $2.64 per share, a term of 10 years, and a vesting period of 4 years. The options have an aggregated fair value of $378,664 that was calculated using the Black-Scholes option-pricing model. Variables used in the Black-Scholes option-pricing model include: (1) discount rate of 1.71% (2) expected life of 6 years, (3) expected volatility of 85.01%, and (4) zero expected dividends. During the six months ended June 30, 2015, the Company recorded $14,783 in stock-based compensation in relation to these options.

On May 7, 2015, the Company granted certain employees 152,499 options to purchase the Company's common stock at an exercise price of $2.52 per share, a term of 10 years, and vested immediately. The options have an aggregated fair value of $275,572 that was calculated using the Black-Scholes option-pricing model. Variables used in the Black-Scholes option-pricing model include: (1) discount rate of 1.70% (2) expected life of 6 years, (3) expected volatility of 85.01%, and (4) zero expected dividends. These options were issued concurrent with the cancellation of 126,265 shares of restricted stock. The fair value of the options granted was less than the fair value of the cancelled restricted stock at May 7, 2015. Therefore, no incremental compensation cost was recorded.

On June 3, 2015, the Company granted certain employees and board members 76,000 options to purchase the Company's common stock at an exercise price of $2.99 per share, a term of 10 years, and a vesting period of 4 years. The options have an aggregated fair value of $163,359 that was calculated using the Black-Scholes option-pricing model. Variables used in the Black-Scholes option-pricing model include: (1) discount rate of 1.91% (2) expected life of 6 years, (3) expected volatility of 85.01%, and (4) zero expected dividends. During the six months ended June 30, 2015, the Company recorded $3,023 in stock-based compensation in relation to these options.

The fair value of all options issued and outstanding are being amortized over their respective vesting periods. During the three months ended June 30, 2015 and 2014, the Company recorded total option expense of $0.9 million and $0.6 million, respectively. During the six months ended June 30, 2015 and 2014, the Company recorded total option expense of $1.9 million and $0.9 million, respectively.

Warrants

Following is a summary of warrant activities for the six months ended June 30, 2015:

	Number of Units	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Outstanding, December 31, 2014	7,634,058	$ 1.64	3.97	$ 34,317,224
Granted	3,333,333	6.50	3.62	-
Exercised	(1,115,810)			
Outstanding, June 30, 2015	9,851,581	3.44	3.44	9,201,405
Exercisable, June 30, 2015	9,564,844	$ 3.31	3.28	$ 9,201,405

On February 11, 2015, the Company completed an underwritten offering of 4,444,444 shares of its common stock and warrants to purchase an aggregate of 3,333,333 shares of its common stock at a price of $4.50 per share. The warrants will be exercisable for a period of 4 years at an exercise price of $6.50 per share. The transaction date relative fair value of the warrants of $3,540,659 was determined utilizing the Black-Scholes option pricing model.

During the six months ended June 30, 2015, 1,115,810 warrants were exercised by the warrant holders. The Company issued 1,056,257 shares of common stock as a result of these exercises.

During the three months ended June 30, 2015 and 2014, the Company recorded stock-based compensation related to the warrants of $57,144 and $39,290, respectively. During the six months ended June 30, 2015 and 2014, the Company recorded stock-based compensation related to the warrants of $113,660 and $98,224, respectively.

Note 10 - Subsequent Events

On July 1, 2015, the Company sold 17,899 shares of common stock for gross proceeds of $47,784 as part of the Sales Agreement with MLV.

On July 1, 2015, the Company entered into a three month rental agreements for office space at 757 3 rd Avenue, New York, NY. The Company paid a one month refundable deposit on the space that it maintains in New York, NY.

On July 22, 2015, 500 shares of restricted stock vested and the Company issued 500 shares of common stock to an employee.

On July 28, 2015, the board of directors of the Company appointed Sergio Traversa as a member of the Audit Committee. Mr. Traversa has been a director since August 2012.

On July 29, 2015, 25,000 shares of restricted stock vested and the Company issued 25,000 shares of common stock to a consultant.

On August 3, 2015, the Company issued 29,761 shares of common stock to a consultant with a fair value of $50,000.

On August 3, 2015, the Company issued 75,818 shares of common stock for the conversion of 86,700 warrants.

On August 6, 2015, the Board approved an amendment to the 2013 Stock Plan and the Equity Incentive Plan (the "Plan Amendments"). Among other things, the Plan Amendments update the underlying documents to provide a uniform definition of "change of control" among the two plans and provide for accelerated vesting of all awards granted under each plan in the event of a change of control of the Company.

On August 6, 2015, the Company entered into an amended and restated consulting agreement with Mr. Sandesh Seth and an amended and restated employment agreement with Mr. Kaushik Dave. Among other things, the amendments revise the previously disclosed underlying agreements to provide substantial uniformity among various provisions of the two agreements, to enhance severance

benefits, including in the event of a change of control of the Company, and to provide for immediate vesting of options in accordance with the amended 2013 Stock Plan and Equity Incentive Plan. The Dave Agreement also changes Dr. Dave's title from "President and Chief Executive Officer" to "Chief Executive Officer". On August 6, 2015, the Company also entered into an amended employment agreement with Mr. Dragan Cicic. Pursuant to the amendment Mr. Cicic's title was changed from Chief Operating Officer and Chief Medical Officer to Chief Medical Officer.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATION

FORWARD-LOOKING STATEMENT NOTICE

This Form 10-Q contains certain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. For this purpose, any statements contained in this Form 10-Q that are not statements of historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, words such as "may," "will," "expect," "believe," "anticipate," "estimate" or "continue" or comparable terminology are intended to identify forward-looking statements. These statements by their nature involve substantial risks and uncertainties, and actual results may differ materially depending on a variety of factors, many of which are not within our control. These factors include but are not limited to economic conditions generally and in the industries in which we may participate; competition within our chosen industry, including competition from much larger competitors; technological advances and failure to successfully develop business relationships.

Description of Business

Actinium is a biotechnology company committed to developing breakthrough therapies for life threatening diseases using its alpha particle immunotherapy (APIT) platform and other related and similar technologies. Actinium, together with its wholly owned subsidiary, MedActinium, Inc. (MAI), is hereinafter referred to collectively as "Actinium" or the "Company" has initiated collaborative efforts with large institutions to establish the proof of concept of alpha particle immunotherapy and has supported one Phase 1/2 clinical trial and one Phase 1 clinical trial at Memorial Sloan-Kettering Cancer Center ("MSKCC") under an MSKCC Physician IND Application. In 2012, Actinium launched a multi-center corporate sponsored trial in acute myeloid leukemia (AML) patients. Actinium's objective, through research and development, is to produce reliable cancer fighting products which utilize monoclonal antibodies linked with alpha particle emitters or other appropriate payloads to provide very potent targeted therapies. The initial clinical trials of Actinium's compounds have been with patients having acute myeloid leukemia and it is believed that Actinium's APIT platform will have wider applicability for different types of cancer where suitable monoclonal antibodies can be found.

We were incorporated under the laws of the State of Nevada on October 6, 1997. We were a shell entity that was in the market for a merger with an appropriate operating company.

On December 28, 2012, we entered into a transaction (the "Share Exchange"), pursuant to which the Company acquired 21% of the issued and outstanding equity securities of Actinium Pharmaceuticals, Inc. ("Actinium"), in exchange for the issuance of 4,333,489 shares of common stock, par value $0.001 per share, of the Company (the "Common Stock"), which were issued to the shareholders of Actinium. As a result of the Share Exchange, the former shareholders of Actinium became the controlling shareholders of the Company. The Share Exchange was accounted for as a reverse takeover/recapitalization effected by a share exchange, wherein Actinium is considered the acquirer for accounting and financial reporting purposes. As a result of the Share Exchange, the Company assumed the business and operations of Actinium.

On March 11, 2013, Actinium Corporation continued its Share Exchange with us, whereby we acquired an additional 36% of the issued and outstanding capital stock of Actinium Corporation from the Actinium Corporation Shareholders in exchange for the issuance of 7,756,840 shares of Common Stock of us to the Actinium Shareholders.

On April 11, 2013, the change of domicile from the State of Nevada to the State of Delaware and the change of Cactus Ventures, Inc.'s name from Cactus Ventures, Inc. to Actinium Pharmaceuticals, Inc. became effective in accordance with Articles of Merger filed with the State of Nevada and a Certificate of Merger filed with the State of Delaware. In connection with the name change we also changed (i) the name of our subsidiary Actinium Pharmaceuticals, Inc. to Actinium Corporation, (ii) our par value to $0.001 per share, and (iii) the number of authorized shares of preferred stock to 10 million shares. Effective April 18, 2013 our new trading symbol became ATNM. On September 25, 2013, we merged with our subsidiary, Actinium Corporation, and we were the surviving entity of the merger. In January 2014 we increased our authorized shares of common stock to 200 million shares and authorized shares of preferred stock to 50 million shares.

On August 22, 2013, Actinium Corporation continued its Share Exchange with us, whereby we acquired an additional 38.2% of the issued and outstanding capital stock of Actinium Corporation from the Actinium Corporation Shareholders in exchange for the issuance of 6,383,475 shares of Common Stock of us to the Actinium Shareholders. On September 25, 2013 in accordance with a Certificate of Ownership Merging Actinium Corporation into us, we merged with Actinium Corporation, and Actinium Corporation ceased to exist. As a result of the merger, Actinium Corporation stock owned by us has been cancelled and each share of Actinium Corporation not owned by us was exchanged for 0.333 shares of our common stock.

On March 26, 2014, we began trading our common stock on the NYSE MKT market.

Plan of Operation

We develop drugs for the treatment of cancer with the intent to cure or significantly improve survival of the affected patients. As of now none of our drugs have been approved for sale in the United States or elsewhere. We have no commercial operations in sales or marketing of our products. All our product candidates are under development. In order to market and sell our products we must conduct clinical trials on patients and obtain regulatory approvals from appropriate regulatory agencies like the Food and Drug Administration (FDA) in the United States and similar agencies elsewhere in the world.

Our products under development are monoclonal antibodies labeled with radioisotopes. We have one program with an antibody labeled with a beta emitter and several programs based on a proprietary patent protected platform technology called APIT. Our APIT technology is based on attaching actinium 225 (Ac-225) or bismuth 213 (Bi-213) alpha emitting radioisotopes to monoclonal antibodies. Alpha emitting radioisotopes are unstable chemical elements that decay by releasing alpha particles. Alpha particles can kill any cell in the immediate proximity of where they are released. Monoclonal antibodies are genetically engineered proteins that specifically target certain cells, including cancer cells. It is crucial for the success of our drug candidates to contain monoclonal antibodies that can successfully seek cancer cells and can kill them with the attached isotope while not harming nearby normal cells. We do not have technology and operational capabilities to develop and manufacture such monoclonal antibodies and we therefore rely on collaboration with third parties to gain access to such monoclonal antibodies. We have secured rights to two monoclonal antibodies, HuM195 (Lintuzumab), in 2003 through a collaborative licensing agreement with Abbivie Biotherapeutics Corp and BC8 in 2012 with the Fred Hutchinson Cancer Research Center ("FHCRC"). We expect to negotiate collaborative agreements with other potential partners that would provide us with access to additional monoclonal antibodies. Establishing and maintaining such collaborative agreements is a key to our success as a company.

Under our own sponsorship as well as activity at FHCRC, we have four product candidates in active clinical trials: Actimab-A (HuM195-Ac-225), Iomab-B (BC8-I-131), BC8-Y-90 and BC8-SA. At this time, the Company is actively pursuing development of Actimab-A and Iomab-B while BC8-Y-90 and BC8-SA are in physician sponsored clinical phase 1 trials at the FHCRC. Actimab-A is a combination of the monoclonal antibody we have in-licensed, Lintuzumab (HuM195), and the alpha emitting isotope actinium 225. Actimab-A has shown promising results throughout preclinical development and an ongoing clinical trial started in 2006 in AML in the elderly. We have expanded the number of patients and number of clinical centers by commencing a new AML clinical trial which we have launched in 2012. This trial targets newly diagnosed AML patients over the age of 60. In order to conduct the trial we are engaged in funding, monitoring and quality assurance and control of the Lintuzumab antibody; procurement of actinium 225 isotope; funding, monitoring and quality assurance and control of the drug candidate Actimab-A manufacturing and organizing and monitoring clinical trials. We estimate that the direct costs to completion of both parts of the ongoing Phase 1/2 trial will be approximately $7 million. Iomab-B is a combination of the in-licensed monoclonal antibody BC8 and the beta emitting radioisotope iodine 131. This construct has been extensively tested in Phase I and Phase 2 clinical trials in approximately 250 patients with different blood cancer indications who were in need of a hematopoietic stem cell transplantation (HSCT). Iomab-B is used to condition the bone marrow of these patients by destroying blood cancer cells in their bone marrow and elsewhere thus allowing for a subsequent transplant containing healthy donor bone marrow stem cells. We have decided to develop this drug candidate by initially focusing on the patients over 50 with active acute myeloid leukemia in relapse and/or refractory to existing treatments. Our intention is to request the FDA in 2015 to allow us to enter into a pivotal trial with Iomab-B. We estimate the direct costs of such a trial to completion anticipated in 2017 will be approximately $25-30 million.

We have primarily management position employees and consultants who direct, organize and monitor the activities described above through contractors. Much of the *in vivo* laboratory and clinical work contracted for by the Company was conducted at MSKCC in New York. We also made clinical trial arrangements with other well-known cancer centers. Our Actimab-A drug candidate and its components are contract manufactured and maintained under our supervision by specialized contract manufacturers and suppliers in the United States, including IsoTex Diagnostics, Oak Ridge National Laboratory, Pacific GMP, Fischer Bioservices, BioReliance and others.

We have never generated revenue. Currently, we do not have a recurring source of revenues to cover our operating costs. We incurred a net loss for the three months ended June 30, 2015 of approximately $7.5 million and income of approximately $3.5 million for the three months ended June 30, 2014. For the six months ended June 30, 2015 and 2014, we incurred a net loss of approximately $10.5 million and $13.2 million, respectively. We believe that we have sufficient cash on hand to fund our operations through the next 12 months.

Opportunities, Challenges and Risks

The market for drugs for cancer treatment is a large market in need of novel products, in which successful products can command multibillion dollars in annual sales. A number of large pharmaceutical and biotechnology companies regularly acquire products in development, with preference given to products in Phase 2 or later clinical trials. These deals are typically structured to include an upfront payment that ranges from several million dollars to tens of million dollars or more and additional milestone payments tied to regulatory submissions and approvals and sales milestones. Our goal is to develop our product candidates through Phase 2 clinical trials and enter into partnership agreements with one or more large pharmaceutical and/or biotechnology companies.

We believe our future success will be heavily dependent upon our ability to successfully conduct clinical trials and preclinical development of our drug candidates. This will in turn depend on our ability to continue our collaboration with MSKCC and our Clinical Advisory Board members. In addition, we plan to continue and expand other research and clinical trial collaborations. Moreover, we will have to maintain sufficient supply of actinium 225 and successfully maintain and if and when needed replenish or obtain our reserves of monoclonal antibodies. We will have to maintain and improve manufacturing procedures we have developed for production of our drug candidates from the components that include the iodine 131 and actinium 225 isotopes, monoclonal antibodies and other materials. It is possible that despite our best efforts our clinical trials results may not meet regulatory requirements for approval. If our efforts are successful, we will be able to partner our development stage products on commercially favorable terms only if they enjoy appropriate patent coverage and/or considerable know-how and other protection that ensures market exclusivity. For that reason we intend to continue our efforts to maintain existing and generate new intellectual property. Intellectual property is a key factor in the success of our business as well as market exclusivity.

To achieve the goals discussed above we intend to continue to invest in research and development at high and constantly increasing rates thus incurring further losses until one or more of our products are sufficiently developed to partner them to large pharmaceutical and biotechnology companies.

Results of Operations – Three Months Ended June 30, 2015 Compared to the Three Months Ended June 30, 2014

The following table sets forth, for the periods indicated, data derived from our statements of operations:

	For the Three Months Ended June 30,	
	2015	**2014**
Revenues	$ -	$ -
Operating expenses:		
Research and development, net of reimbursements	3,837,959	2,130,625
General and administrative	3,550,361	2,285,939
Depreciation expense	16,194	8,052
Total operating expenses	7,404,514	4,424,616
Other income (expense):		
Interest expense	(1,553)	-
Gain (loss) on change in fair value of derivative liabilities	(57,668)	7,939,711
Total other income (expense)	(59,221)	7,939,711
Net (loss) income	$ (7,463,735)	$ 3,515,095

Revenues

We recorded no commercial revenues for the three months ended June 30, 2015 and 2014.

Research and Development Expense

Research and development expenses increased by approximately $1.7 million to approximately $3.8 million for the three months ended June 30, 2015 from approximately $2.1 million for the three months ended June 30, 2014. During the first quarter of 2014, we engaged an outside consultant to oversee the current Good Manufacturing Practices (cGMP) production of a monoclonal antibody anticipated to be used in the Phase 3 clinical trial of Iomab™-B. Iomab-B manufacturing costs increased by approximately $0.7 million for the three months ended June 30, 2015 as compared to the three months ended June 30, 2014. In addition, payroll related costs increased by approximately $0.4 million due to the increased number of employees in 2015 than in 2014. Actimab™-A costs increased by approximately $0.3 million. We expect to incur increased research and development costs in the future.

General and Administrative Expenses

Overall, total general and administrative expenses increased by approximately $1.3 million to approximately $3.6 million for the three months ended June 30, 2015 from approximately $2.3 million for the three months ended June 30, 2014. The increase was largely attributable to increases in payroll related expenses and consulting fees of approximately $0.5 million and $0.6 million, respectively. We expect to incur increased general and administrative costs in the future.

Other Income (Expense)

Other expense was approximately $0.1 million for the three months ended June 30, 2015 from income of approximately $7.9 million for the three months ended June 30, 2014. The other income (expense) is mainly associated with changes in our warrant derivative liability. The change is attributable to the fluctuation of our stock price from $7.22 per share at June 30, 2014 to $2.65 per share at June 30, 2015.

Net Loss

Net loss increased by approximately $11.0 million from net income of $3.5 million for the three months ended June 30, 2014 to a net loss of approximately $7.5 million for the three months ended June 30, 2015. The increase was primarily due to the increase in expenses and the change in fair value of derivative liabilities as discussed above.

Results of Operations – Six Months Ended June 30, 2015 Compared to the Six Months Ended June 30, 2014

The following table sets forth, for the periods indicated, data derived from our statements of operations:

	For the Six Months Ended June 30,	
	2015	2014
Revenues	$ —	$ —
Operating expenses:		
Research and development, net of reimbursements	7,886,673	3,720,401
General and administrative	7,356,766	4,833,184
Depreciation expense	26,589	9,457
Total operating expenses	15,270,028	8,563,042
Other income (expense):		
Interest expense	(7,280)	—
Gain (loss) on change in fair value of derivative liabilities	4,738,710	(4,621,360)
Total other income (expense)	4,731,430	(4,621,360)
Net loss	$(10,538,598)	$(13,184,402)

Revenues

We recorded no commercial revenues for the six months ended June 30, 2015 and 2014.

Research and Development Expense

Research and development expenses increased by approximately $4.2 million to approximately $7.9 million for the six months ended June 30, 2015 from approximately $3.7 million for the six months ended June 30, 2014. For the six months ended June 30, 2015, we incurred an increase of approximately $2.4 million of manufacturing costs of BC8, the antibody that is the key component of Iomab-B and an increase in salaries of approximately $0.5 million. We expect to incur increased research and development costs in the future.

General and Administrative Expenses

Overall, total general and administrative expenses increased by approximately $2.6 million to $7.4 million for the six months ended June 30, 2015 from approximately $4.8 million for the six months ended June 30, 2014. The increase was largely attributable to increases in payroll related expenses and consulting fees of approximately $1.5 million and $1.0 million, respectively. We expect to incur increased general and administrative costs in the future.

Other Income (Expense)

Other income was $4.7 million for the six months ended June 30, 2015 compared to other expense of $4.6 million for the six months ended June 30, 2014. The Company recorded a gain on the change in fair value of the Company's embedded derivative liability in the approximate amount $4.7 million during the six months ended June 30, 2015 as compared to a loss of approximately $4.6 million during the comparable six month period ended June 30, 2014. The change is mainly attributable to the fluctuation of the Company's stock price.

Net Loss

Net loss decreased by approximately $2.7 million from $13.2 million for the six months ended June 30, 2014 to approximately $10.5 million for the six months ended June 30, 2015. The decrease was primarily due to a gain from change in fair value of the derivative liability.

Liquidity and Capital Resources

We have financed our operations primarily through sales of the Company's common stock.

We did not have any cash or cash equivalents held in financial institutions located outside of the United States as of June 30, 2015 and December 31, 2014. We do not anticipate this practice will change in the future.

The following tables sets forth selected cash flow information for the periods indicated:

	For the Six Months Ended June 30,	
	2015	2014
Cash used in operating activities	$ (11,080,245)	$ (5,062,072)
Cash used in investing activities	(959)	(128,439)
Cash provided by financing activities	30,326,458	14,327,958
Net change in cash	$ 19,245,254	$ 9,137,447

Net cash used in operating activities was approximately $11.1 million and $5.1 million for the six months ended June 30, 2015 and 2014, respectively. Cash used in operations increased due to the increase in spending related to preparations and eventual launch and conduct of a multicenter clinical trial and an increase in spending related to professional fees combined with an increase in payroll-related expenses.

Net cash provided by financing activities was approximately $30.3 million and approximately $14.3 million for the six months ended June 30, 2015 and 2014, respectively. During the six months ended June 30, 2015, the Company issued common stock and received net proceeds of approximately $30.5 million compared to approximately $14.3 million received during the six months ended June 30, 2014. In addition, the Company received aggregate proceeds of approximately $15,700 and $27,000 from the exercise of options and warrants during the six months ended June 30, 2015. These increases were partially offset by payments on notes payable of $0.2 million and $0.1 million for each of the six months ended June 30, 2015 and 2014.

Recent Equity Offerings

On February 11, 2015, we completed an underwritten offering of 4,444,444 shares of its common stock and warrants to purchase an aggregate of 3,333,333 shares of its common stock at a price of $4.50 per share. The warrants are exercisable for a period of 4 years at an exercise price of $6.50 per share. We received net proceeds of approximately $18.5 million, after deducting underwriting discounts and commissions and offering expenses payable by us, and excluding the underwriters' over-allotment option. In addition, we granted the underwriters a 30-day option to purchase up to an additional 666,666 shares of common stock and warrants to purchase 499,999 shares of common stock solely to cover over-allotments, if any. The underwriter did not exercise the over-allotment option.

On June 9, 2015, we closed a financing with certain investors in which we raised approximately $5,000,000 in gross proceeds or $4,480,000 in net proceeds, after deducting placement agent's fees and other offering expenses. Investors purchased 1,923,078 shares of our common stock, at a price per share of $2.60.

On March 24, 2014, we filed a shelf registration statement on Form S-3 (the "Registration Statement") and deemed effective on April 17, 2014. This Registration Statement contained two prospectuses: (i) a base prospectus which covers the offering, issuance and sale by the Company of up to $200,000,000 of its common stock, preferred stock, warrants and/or units; and (ii) a sales agreement prospectus covering the offering, issuance and sale by us of up to a maximum aggregate offering price of $75,000,000 of its common stock that may be issued and sold under a sales agreement (the "Sales Agreement") with MLV & Co. LLC ("MLV"). During the quarter ended June 30, 2015, the Company issued 2,609,001 shares of common stock for gross proceeds of $7,742,451. Since inception through June 30, 2015, the Company issued 2,609,501 shares of common stock for gross proceeds of $7,748,451.

During the six months ended June 30, 2015, we issued 1,021,577 common shares for the exercise of cashless exercise warrants and issued 54,680 common shares for $42,730 cash received from the exercise of options and warrants.

During the six months ended June 30, 2015, the Company issued common shares totaling 462,257 for restricted shares granted.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

Seasonality

We do not have a seasonal business cycle. Our operating results are generally derived evenly throughout the calendar year.

Critical Accounting Policies

Our financial statements have been prepared in accordance with accounting principles generally accepted in the United States. To prepare these consolidated financial statements, we must make estimates and assumptions that affect the reported amounts of assets and liabilities. These estimates also affect our expenses. Judgments must also be made about the disclosure of contingent liabilities. Actual results could be significantly different from these estimates. We believe that the following discussion addresses the accounting policies that are necessary to understand and evaluate our reported financial results.

Derivatives

All derivatives are recorded at fair value and recorded on the balance sheet. Fair values for securities traded in the open market and derivatives are based on quoted market prices. Where market prices are not readily available, fair values are determined using market based pricing models incorporating readily observable market data and requiring judgment and estimates.

Fair Value of Financial Instruments

Fair value is defined as the price that would be received to sell an asset, or paid to transfer a liability, in an orderly transaction between market participants. A fair value hierarchy has been established for valuation inputs that gives the highest priority to quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs. The fair value hierarchy is as follows:

- Level 1 Inputs – Unadjusted quoted prices in active markets for identical assets or liabilities that the reporting entity has the ability to access at the measurement date.

- Level 2 Inputs – Inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly. These might include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the asset or liability (such as interest rates, volatilities, prepayment speeds, credit risks, etc.) or inputs that are derived principally from or corroborated by market data by correlation or other means.

- Level 3 Inputs – Unobservable inputs for determining the fair values of assets or liabilities that reflect an entity's own assumptions about the assumptions that market participants would use in pricing the assets or liabilities.

Income Taxes

The Company uses the asset and liability method in accounting for income taxes. Under this method, deferred tax assets and liabilities are determined based on differences between financial reporting and income tax carrying amounts of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The Company reviews deferred tax assets for a valuation allowance based upon whether it is more likely than not that the deferred tax asset will be fully realized. A valuation allowance, if necessary, is provided against deferred tax assets, based upon management's assessment as to their realization.

Research and Development Costs

Research and development costs are expensed as incurred. Research and development reimbursements and grants are recorded by the Company as a reduction of research and development costs.

Share-Based Payments

The Company estimates the fair value of each stock option award at the grant date by using the Black-Scholes option pricing model. The fair value determined represents the cost for the award and is recognized over the vesting period during which an employee is required to provide service in exchange for the award. As share-based compensation expense is recognized based on awards ultimately expected to vest, the Company reduces the expense for estimated forfeitures based on historical forfeiture rates. Previously recognized compensation costs may be adjusted to reflect the actual forfeiture rate for the entire award at the end of the vesting period. Excess tax benefits, if any, are recognized as an addition to paid-in capital.

Recent Accounting Pronouncements

In April 2015, the Financial Accounting Standards Board issued Accounting issued Accounting Standards Update (ASU) No. 2015-03, Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs. The amendments in this ASU require that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The recognition and measurement guidance for debt issuance costs are not affected by the amendments in this ASU. The amendments are effective for financial statements issued for fiscal years beginning after December 15, 2015, and interim periods within those fiscal years. We are currently evaluating the effects of ASU 2015-03 on the consolidated financial statements.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Common Stock Price Risk

In December 2012, we issued common stock and warrants. Pursuant to ASC 815-40, we recorded the fair value of the warrants as a current liability. The fair value of the outstanding warrants is evaluated at each reporting period with any resulting change in the fair value being reflected in the condensed consolidated statements of operations. For the three months ended June 30, 2015, we recognized the change in the value of warrants of approximately $0.06 million as a loss on the consolidated statement of operations. For the three months ended June 30, 2014, we recognized the change in the value of warrants of approximately $7.9 million as a gain on the consolidated statement of operations. For the six months ended June 30, 2015, we recognized the change in the value of warrants of approximately $4.7 million as a gain on the consolidated statement of operations. For the six months ended June 30, 2014, we recognized the change in the value of warrants of approximately $4.6 million as a loss on the consolidated statement of operations. Fair value of the derivative instruments will be affected by estimates of various factors that may affect the respective instrument, including our stock price, the risk free rate of return and expected volatility in the fair value of our stock price. As the fair value of this derivative may fluctuate significantly from period to period, the resulting change in valuation may have a significant impact on our results of operations.

On March 24, 2014, we filed a shelf registration statement on Form S-3 (the "Registration Statement") that was deemed effective on April 17, 2014. This Registration Statement contained two prospectuses: (i) a base prospectus which covers the offering, issuance and sale by the Company of up to $200,000,000 of its common stock, preferred stock, warrants and/or units; and (ii) a sales agreement prospectus covering the offering, issuance and sale by us of up to a maximum aggregate offering price of $75,000,000 of its common stock that may be issued and sold under a sales agreement (the "Sales Agreement") with MLV & Co. LLC ("MLV"). During the quarter ended June 30, 2015, the Company issued 2,609,001 shares of common stock for gross proceeds of $7,742,451. Since inception through June 30, 2015, the Company issued 2,609,501 shares of common stock for gross proceeds of $7,748,451.

Sales of the our common stock through MLV, if any, will be made on the NYSE MKT LLC, on any other existing trading market for the common stock or to or through a market maker. Subject to the terms and conditions of the Sales Agreement, MLV will use commercially reasonable efforts to sell our common stock from time to time, based upon our instructions (including any price, time or size limits or other customary parameters or conditions we may impose). We will pay to MLV in cash, upon the sale of common stock pursuant to the Sales Agreement, an amount equal to 3.0% of the gross proceeds from the sale of common stock. We have also provided MLV with customary indemnification rights.

ITEM 4. CONTROLS AND PROCEDURES.

Evaluation of Disclosure Controls and Procedures. Under the supervision and with the participation of our management, including our chief executive officer and principal financial and accounting officer, we conducted an evaluation of the effectiveness, as of June 30, 2015, of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act. Based upon such evaluation, our chief executive officer and principal financial and accounting officer have concluded that, as of June 30, 2015, our disclosure controls and procedures were effective to provide reasonable assurance that the information we are required to disclose in our filings with the Securities and Exchange Commission, or SEC, under the Exchange Act (i) is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and (ii) accumulated and communicated to our management, including our chief executive officer and principal financial and accounting officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting. There were no changes in our system of internal controls over financial reporting during the period covered by this report that has materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

None

ITEM 1A. RISK FACTORS

In analyzing our company, you should consider carefully the following risk factors, together with all of the other information included in Part I, "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2014. Factors that could cause or contribute to differences in our actual results include those discussed in the following subsection, as well as those discussed above in "Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere throughout this Quarterly Report on Form 10-Q. Each of the following risk factors, either alone or taken together, could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our Company The risks and uncertainties described below are not the only ones we face. Additional risks not currently known to us or other factors not perceived by us to present significant risks to our business at this time also may impair our business operations.

Risks Related to Our Business

We have generated no revenue from commercial sales to date and our future profitability is uncertain.

We have a limited operating history and our business is subject to all of the risks inherent in the establishment of a new business enterprise. Our likelihood of success must be considered in light of the problems, expenses, difficulties, complications and delays frequently encountered in connection with this development and expansion. Since we began our business, we have focused on research, development and clinical trials of product candidates, and have incurred losses since inception. As of June 30, 2015, we had an accumulated deficit of approximately $101.7 million. If we continue to incur operating losses and fail to become a profitable company, we may be unable to continue our operations. We expect to continue to operate at a net loss as we continue our research and development efforts, continue to conduct clinical trials and develop manufacturing, sales, marketing and distribution capabilities. There can be no assurance that the products under development by us will be approved for sale in the United States or elsewhere. Furthermore, there can be no assurance that if such products are approved they will be successfully commercialized, and the extent of our future losses and the timing of our profitability are highly uncertain.

If we fail to obtain the capital necessary to fund our operations, we will be unable to continue or complete our product development and you will likely lose your entire investment.

We do not currently have sufficient capital for the development and commercialization of our lead product candidate and we will need to continue to seek capital from time to time to continue development of our lead product candidates and to acquire and develop other product candidates. Our first product candidate is not expected to be commercialized, if approved, until at least 2017 and we do not expect that the partnering revenues it will generate will be sufficient to fund our ongoing operations. Our cash balance as of June 30, 2015 was approximately $26.0 million. As of June 30, 2015, we believe that we have enough cash to finance research and development and to cover our ongoing working capital needs through the second quarter 2016.

Our business or operations may change in a manner that would consume available funds more rapidly than anticipated and substantial additional funding may be required to maintain operations, fund expansion, develop new or enhanced products, acquire complementary products, business or technologies or otherwise respond to competitive pressures and opportunities, such as a change in the regulatory environment or a change in preferred cancer treatment modalities. However, we may not be able to secure funding when we need it or on favorable terms.

To raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock in future transactions may be higher or lower than the price per share in this offering. Additionally, you may incur dilution as a result of grants of equity awards under our equity incentive plans, or upon exercise of options or warrants currently outstanding with exercise prices at or below the public offering price of our common stock in this offering.

If we cannot raise adequate funds to satisfy our capital requirements, we will have to delay, scale-back or eliminate our research and development activities, clinical studies or future operations. We may also be required to obtain funds through arrangements with collaborators, which arrangements may require us to relinquish rights to certain technologies or products that we otherwise would not consider relinquishing, including rights to future product candidates or certain major geographic markets. We may further have to license our technology to others. This could result in sharing revenues which we might otherwise have retained for ourselves. Any of these actions may harm our business, financial condition and results of operations.

The amount of capital we may need depends on many factors, including the progress, timing and scope of our product development programs; the progress, timing and scope of our preclinical studies and clinical trials; the time and cost necessary to obtain regulatory approvals; the time and cost necessary to further develop manufacturing processes and arrange for contract manufacturing; our ability to enter into and maintain collaborative, licensing and other commercial relationships; and our partners' commitment of time and resources to the development and commercialization of our products.

We have limited access to the capital markets and even if we can raise additional funding, we may be required to do so on terms that are dilutive to you.

We have limited access to the capital markets to raise capital. The capital markets have been unpredictable in the recent past for radio-immunotherapy and other oncology companies and unprofitable companies such as ours. In addition, it is generally difficult for development stage companies to raise capital under current market conditions. The amount of capital that a company such as ours is able to raise often depends on variables that are beyond our control. As a result, we may not be able to secure financing on terms attractive to us, or at all. If we are able to consummate a financing arrangement, the amount raised may not be sufficient to meet our future needs. If adequate funds are not available on acceptable terms, or at all, our business, including our technology licenses, results of operations, financial condition and our continued viability will be materially adversely affected.

If we fail to obtain or maintain necessary FDA approval for our radio-immunotherapy products, or if such approvals are delayed, we will be unable to commercially distribute and market our products.

Our products are subject to rigorous regulation by the FDA and numerous other federal, state and foreign governmental authorities. The process of seeking regulatory approval to market a radio-immunotherapy product is expensive and time-consuming and, notwithstanding the effort and expense incurred, approval is never guaranteed. If we are not successful in obtaining timely approval of Company products from the FDA, we may never be able to generate significant revenue and may be forced to cease operations. In particular, the FDA permits commercial distribution of a new radio-immunotherapy product only after a Biologics License Application (BLA) for the product has received FDA approval. The BLA process is costly, lengthy and inherently uncertain. Any BLA filed by us will have to be supported by extensive data, including, but not limited to, technical, preclinical, clinical trial, manufacturing and labeling data, to demonstrate to the FDA's satisfaction the safety and efficacy of the product for its intended use. The lengthy approval process as well as the unpredictability of future clinical trial results may result in our failing to obtain regulatory approval to market our product candidates, which would significantly harm our business, results of operations and prospects. In addition, even if we were to obtain approval, regulatory authorities may approve any of our product candidates for fewer or more limited indications than we request, may not approve the price we intend to charge for our products, may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve a product candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that product candidate. Any of the foregoing scenarios could materially harm the commercial prospects for our product candidates.

The approval process in the United States and in other countries could result in unexpected and significant costs for us and consume management's time and other resources. The FDA and other foreign regulatory agencies could ask us to supplement our submissions, collect non-clinical data, conduct additional clinical trials or engage in other time-consuming actions, or it could simply deny our applications. In addition, even if we obtain approval to market our products in the United States or in other countries, the approval could be revoked or other restrictions imposed if post-market data demonstrates safety issues or lack of effectiveness. We cannot predict with certainty how, or when, the FDA or other regulatory authorities will act. If we are unable to obtain the necessary regulatory approvals, our financial condition and cash flow may be materially adversely affected, and our ability to grow domestically and internationally may be limited. Additionally, even if we obtain approval, regulatory authorities may approve any of our product candidates for fewer or more limited indications that we request. The Company's products may not be approved for the specific indications that are most necessary or desirable for successful commercialization or profitability.

Our radio-immunotherapy product candidates are in the early stages of development; and we have not demonstrated that any of our products are safe and effective for any indication.

We currently have only two products in clinical development. We have commenced a Phase 1/2 multi-center AML trial with fractionated doses of Actimab™-A under its own federal Investigational New Drug Application (IND). Additionally, there are a number of physician IND trials at the FHCRC that have been conducted or are currently ongoing at FHCRC with single doses of Iomab™-B. We plan to file our own IND prior to initiating our planned Phase 3 study of Iomab™-B.

We cannot predict whether we will encounter problems with any of our ongoing or planned clinical trials that will cause us or regulatory authorities to delay, suspend, or discontinue clinical trials or to delay the analysis of data from ongoing clinical trials. Any of the following could delay or disrupt the clinical development of our product candidates and potentially cause our product candidates to fail to receive regulatory approval:

- conditions imposed on us by the FDA or comparable foreign authorities regarding the scope or design of our clinical trials;

- delays in receiving, or the inability to obtain, required approvals from institutional review boards (IRBs) or other reviewing entities at clinical sites selected for participation in our clinical trials;

- delays in enrolling patients into clinical trials;

- a lower than anticipated retention rate of patients in clinical trials;

- the need to repeat or discontinue clinical trials as a result of inconclusive or negative results or unforeseen complications in testing or because the results of later trials may not confirm positive results from earlier preclinical studies or clinical trials;

- inadequate supply, delays in distribution deficient quality of, or inability to purchase or manufacture drug product, comparator drugs or other materials necessary to conduct our clinical trials;

- unfavorable FDA or other foreign regulatory inspection and review of a clinical trial site or records of any clinical or preclinical investigation;

- serious and unexpected drug-related side effects experienced by participants in our clinical trials, which may occur even if they were not observed in earlier trials or only observed in a limited number of participants;

- a finding that the trial participants are being exposed to unacceptable health risks;

- the placement by the FDA or a foreign regulatory authority of a clinical hold on a trial; or

- delays in obtaining regulatory agency authorization for the conduct of our clinical trials.

We may suspend, or the FDA or other applicable regulatory authorities may require us to suspend, clinical trials of a product candidate at any time if we or they believe the patients participating in such clinical trials, or in independent third party clinical trials for drugs based on similar technologies, are being exposed to unacceptable health risks or for other reasons.

Further, individuals involved with our clinical trials may serve as consultants to us from time to time and receive stock options or cash compensation in connection with such services. If these relationships and any related compensation to the clinical investigator carrying out the study result in perceived or actual conflicts of interest, or the FDA concludes that the financial relationship may have affected interpretation of the study, the integrity of the data generated at the applicable clinical trial site may be questioned and the utility of the clinical trial itself may be jeopardized. The delay, suspension or discontinuation of any of our clinical trials, or a delay in the analysis of clinical data for our product candidates, for any of the foregoing reasons, could adversely affect our efforts to obtain regulatory approval for and to commercialize our product candidates, increase our operating expenses and have a material adverse effect on our financial results.

Clinical trials may also be delayed or terminated as a result of ambiguous or negative interim results. In addition, a clinical trial may be suspended or terminated by us, the FDA, the IRBs at the sites where the IRBs are overseeing a trial, or a data safety monitoring board, or DSMB, overseeing the clinical trial at issue, or other regulatory authorities due to a number of factors, including:

- failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols;

- inspection of the clinical trial operations or trial sites by the FDA or other regulatory authorities resulting in the imposition of a clinical hold;

- varying interpretation of data by the FDA or similar foreign regulatory authorities;
- failure to achieve primary or secondary endpoints or other failure to demonstrate efficacy;
- unforeseen safety issues; or
- lack of adequate funding to continue the clinical trial.

Additionally, changes in regulatory requirements and guidance may occur and we may need to amend clinical trial protocols to reflect these changes. Amendments may require us to resubmit our clinical trial protocols to IRBs for reexamination, which may impact the cost, timing or successful completion of a clinical trial.

In addition, neither we nor any relevant collaborative partner(s) has yet undertaken any clinical assessment or investigation of Company radio-immunotherapy product candidates for other indications, including colon cancer or prostate cancer. Significant further investment may be required to acquire antibody rights and to undertake necessary research and continued development. Further laboratory and specific clinical testing will be required prior to regulatory approval of any product candidates. Adverse or inconclusive results from pre-clinical testing or clinical trials of product candidates may substantially delay, or halt entirely, any further development of one or more of our products. The projected timetables for continued development of the technologies and related product candidates by us may otherwise be subject to delay or suspension.

Modifications to our product candidates may require federal approvals.

The BLA application is the vehicle through which the company may formally propose that the FDA approve a new pharmaceutical for sale and marketing in the United States. Once a particular product candidate receives FDA approval, expanded uses or uses in new indications of our products may require additional human clinical trials and new regulatory approvals, including additional IND and BLA submissions and premarket approvals before we can begin clinical development, and/or prior to marketing and sales. If the FDA requires new approvals for a particular use or indication, we may be required to conduct additional clinical studies, which would require additional expenditures and harm our operating results. If the products are already being used for these new indications, we may also be subject to significant enforcement actions.

Conducting clinical trials and obtaining approvals can be a time-consuming process, and delays in obtaining required future approvals could adversely affect our ability to introduce new or enhanced products in a timely manner, which in turn would harm our future growth.

There is no guarantee that the FDA will approve BLAs for our product candidates and failure to obtain necessary approvals for our product candidates would adversely affect our ability to grow our business.

We have recently commenced a multi-center Phase 1/2 clinical trial for our lead product candidate, Actimab™-A, in AML and in the future expect to submit a BLA to the FDA for approval of this product. This product candidate is also the subject of an ongoing human safety trial being conducted under a physician IND at MSKCC. We are in the early stages of evaluating other product candidates consisting of conjugates of Ac-225 with human or humanized antibodies for pre-clinical and clinical development in other types of cancer. In June 2012, we acquired rights to Iomab™, a Phase 2 clinical stage monoclonal antibody with safety and efficacy data in more than 250 patients in need of HSCT. Product candidates utilizing this antibody would also require BLA approval before they can be marketed in the United States. The FDA may not approve these products for the indications that are necessary or desirable for successful commercialization. Indeed, the FDA may fail to approve any BLA we submit for new product candidates or for new intended uses or indications for approved products or future product candidates. Failure to obtain FDA approval for our products in the proposed indications would have an adverse effect on our ability to expand our business.

Clinical trials necessary to support approval of BLAs for our product candidates will be time consuming and expensive. Delays or failures in our clinical trials may prevent us from commercializing our product candidates and will adversely affect our business, operating results and prospects and could cause us to cease operations.

Initiating and completing clinical trials necessary to support FDA approval of a BLA for Actimab™-A and other product candidates, is a time-consuming and expensive process, and the outcome is inherently uncertain. Moreover, the results of early clinical trials are not necessarily predictive of future results, and any product candidate we advance into clinical trials may not have favorable results in later clinical trials. We have worked with the FDA to develop a clinical trial designed to test the initial safety and efficacy of Actimab™-A in newly diagnosed AML patients over the age of 60, and on October 6, 2008, and January 5, 2009, we submitted IND amendments to the FDA for the conduct of a multi-center Phase 1/2 clinical trial for treatment of AML. The trial is now underway with the purpose of examining the use of Actimab™-A in AML patients who are not eligible for approved forms of treatment with curative intent. The trial is not designed to support marketing approval for the product candidate, and one or more additional trials will have to be conducted in the future before we file a BLA. In addition, there can be no assurance that the data generated during the trial will meet our chosen safety and effectiveness endpoints or otherwise produce results that will eventually support the filing or approval of a BLA. Even if the data from this trial are favorable, these data may not be predictive of the results of any future clinical trials.

The issued patents, which are licensed by us for the HuM-195 antibody, our acute myeloid leukemia targeting antibody, may expire before we have commercialized Actimab™-A.

The humanized antibody which we use in the conjugated Actimab™-A product candidate is covered by the claims of issued patents that we license from Facet Biotech Corporation, a wholly-owned subsidiary of AbbVie Laboratories. After these patents expire, others may be eventually able to use an antibody with the same sequence, and we will then need to rely on additional patent protection covering alpha particle drug products comprising actinium 225. Any competing product based on the HuM-195 antibody is likely to require several years of development before achieving our product candidate's current status and may be subject to significant regulatory hurdles, but is nevertheless a possibility that can affect the Company's business in the future.

Additionally, because we expect that certain of these patents will expire prior to commercialization of Actimab™-A, we expect that in order to attract a commercialization partner for that product candidate, we may need to reach an agreement with AbbVie to reduce the milestone payments and royalties currently required to be paid under our license agreement for HuM-195. There can be no assurance that the parties will be able to agree on an amendment to the terms of the license. Failure to reach such an agreement could materially adversely affect our ability to find a commercialization partner for Actimab™-A which may materially harm our business.

Iomab™-B is not patent protected.

Neither the antibody portion nor the composition of matter as a whole for the conjugated Iomab™ product candidate is covered by the claims of any issued or pending patents. Accordingly, there are no patents that would prevent others from using an antibody with the same antibody sequence in any drug product (e.g., those comprising iodine 131 or alpha particle emitters). Any competing product based on the antibody used in Iomab-B™ is likely to require several years of development before achieving our product candidate's current status and may be subject to significant regulatory hurdles, but is nevertheless a possibility that could negatively impact the Company's business in the future.

We may be unable to obtain a sufficient supply of Ac-225 medical grade isotope in order to continue clinical trials and to allow for the manufacture of commercial quantities of Actimab™-A

There are limited quantities of Ac-225 available today. The existing supplier of Ac-225 to us is the ORNL, which is a science and energy national laboratory in the Department of Energy system. ORNL manufactures Ac-225 by eluting it from its supply of Thorium-229. Although this has proven to be a very reliable source of production for a number of years, it is limited by the quantity of Thorium-229 at ORNL. We believe that the current approximate maximum of Ac-225 production from this source is sufficient for approximately 1,000–2,000 patient treatments per year. Since our needs are significantly below that amount at this time, and will continue to be below that for as long as we do not have a commercial product with a potential of selling more than 2,000 patient doses per year, we believe that this supply will be sufficient for completion of clinical trials and early commercialization. To secure supplies beyond this amount, we have developed what we believe to be a scalable cost-effective process for manufacturing Ac-225 in a cyclotron at an estimated cost in excess of $5 million. This work has been conducted at Technical University Munich (TUM) in Germany. We are now in possession of detailed descriptions of all the developed manufacturing procedures and have rights to all relevant patent applications and other intellectual property. However, we do not currently have access to a commercial cyclotron capable of producing medical grade Ac-225. Although beam time on such cyclotrons is commercially available, we do not currently have a relationship with any entity that owns or controls a suitable cyclotron. We have identified possible sources and estimate that we could secure the necessary beam time when needed at a cost of approximately $2 million per year. In the meantime, our contract for supply of this isotope from ORNL must be renewed yearly, and the current contract extends through the end of 2015. While we expect this contract will be renewed at the end of its term, there can be no assurance that ORNL will decide to renew the contract or that the United States Department of Energy will not change its policies that allow for the sale of isotope to us. Failure to acquire sufficient quantities of medical grade Ac-225 would make it impossible to effectively complete clinical trials and to commercialize Actimab™-A and would materially harm our business.

Conducting successful clinical studies may require the enrollment of large numbers of patients, and suitable patients may be difficult to identify and recruit.

Patient enrollment in clinical trials and completion of patient participation and follow-up depends on many factors, including the size of the patient population; the nature of the trial protocol; the availability of approved effective treatments for the relevant disease; competition from other clinical trial programs for similar indications; the attractiveness of, or the discomforts and risks associated with, the treatments received by enrolled subjects; the availability of appropriate clinical trial investigators; support staff; and proximity of patients to clinical sites and ability to comply with the eligibility and exclusion criteria for participation in the clinical trial and patient compliance. For example, patients may be discouraged from enrolling in our clinical trials if the trial protocol requires them to undergo extensive post-treatment procedures or follow-up to assess the safety and effectiveness of our product candidates or if they determine that the treatments received under the trial protocols are not attractive or involve unacceptable risks or discomforts. Patients may also not participate in our clinical trials if they choose to participate in contemporaneous clinical trials of competitive product candidates. In addition, patients participating in refractory AML clinical trials are seriously and often terminally ill and therefore may not complete the clinical trial due to reasons including comorbid conditions or occurrence of adverse medical events related or unrelated to the investigational products, or death.

Development of sufficient and appropriate clinical protocols to demonstrate safety and efficacy are required and we may not adequately develop such protocols to support approval.

The FDA may require us to submit data on a greater number of patients than we originally anticipated and/or for a longer follow-up period or change the data collection requirements or data analysis applicable to our clinical trials. It may also require additional data on certain categories of patients, should it emerge during the conduct of our clinical trials that certain categories of patients are likely to be affected in different and/or additional manners than the rest of the patient population. In addition to FDA requirements, our clinical trials require the approval of the IRB at each site selected. We have submitted our clinical trial protocol for our current Actimab™-A clinical trial to the IRBs at participating sites for approval and we have thus far obtained approval from seven IRBs. Our clinical trial protocols have not been rejected by any IRB to date.

FDA may take actions that would prolong, delay, suspend, or terminate clinical trials of our product candidates, which may delay or prevent us from commercializing our product candidates on a timely basis, causing us to incur additional costs and delay our receipt of any revenue from potential product sales.

There can be no assurance that the data generated in our clinical trials will be acceptable to FDA or that if future modifications during the trial are necessary, that any such modifications will be acceptable to FDA. Certain modifications to a clinical trial protocol made during the course of the clinical trial have to be submitted to the FDA. This could result in the delay or halt of a clinical trial while the modification is evaluated. In addition, depending on the quantity and nature of the changes made, FDA could take the position that some or all of the data generated by the clinical trial is not usable because the same protocol was not used throughout the trial. This might require the enrollment of additional subjects, which could result in the extension of the clinical trial and the FDA delaying approval of a product candidate. If the FDA believes that its prior approval is required for a particular modification, it can delay or halt a clinical trial while it evaluates additional information regarding the change.

Serious injury or death resulting from a failure of one of our product candidates during current or future clinical trials could also result in the FDA delaying our clinical trials or denying or delaying approval of a product candidate.

The Phase 1 portion of the ongoing Phase 1/2 clinical trial for Actimab™-A being conducted at seven clinical centers in the United States (MSKCC, MD Anderson Cancer Center, Fred Hutchinson Cancer Research Center, Johns Hopkins Medicine, University of Pennsylvania Health System, Baylor Summons Cancer Center and Columbia University Medical Center) was designed to establish the maximum tolerated dose of the product. As the Company expected, patients receiving highest dose of the drug administered in the trial so far had prolonged bone marrow suppression which could lead to fatal infections and other severe consequences. Consequently, the dose levels of our drug in that trial were reduced as we continue our work on establishing maximum tolerated dose.

Even though an adverse event may not be the result of our product candidate, the FDA or an IRB could delay or halt a clinical trial for an indefinite period of time while an adverse event is reviewed, and likely would do so in the event of multiple such events.

Any delay or termination of our current or future clinical trials as a result of the risks summarized above, including delays in obtaining or maintaining required approvals from IRBs, delays in patient enrollment, the failure of patients to continue to participate in a clinical trial, and delays or termination of clinical trials as a result of protocol modifications or adverse events during the trials, may cause an increase in costs and delays in the filing of any submissions with the FDA, delay the approval and commercialization of our product candidates or result in the failure of the clinical trial, which could adversely affect our business, operating results and prospects. Lengthy delays in the completion of our Actimab™-A clinical trials would adversely affect our business and prospects and could cause us to cease operations.

If the third parties on which we rely to conduct our clinical trials and to assist us with pre-clinical development do not perform as contractually required or expected, or fail to comply with applicable regulations and standards, we may not be able to obtain regulatory approval for or commercialize our product candidates.

We do not have the ability to independently conduct our pre-clinical and clinical trials for our product candidates and we must rely on third parties, such as contract research organizations, medical institutions, clinical investigators and contract laboratories to conduct such trials. Our reliance on these third parties for clinical development activities results in reduced control over these activities. Moreover, the FDA requires us to comply with regulations and standards, commonly referred to as GCPs, for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the trial participants are adequately protected. Our reliance on third parties does not relieve us of these responsibilities and requirements. If we or any of our third party contractors fail to comply with applicable GCPs, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that upon inspection by a given regulatory authority, such regulatory authority will determine that any of our clinical trials complies with GCP regulations. In addition, our clinical trials must be conducted with product produced under current good manufacturing practice, or cGMP, regulations. Our failure to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process.

To date, we believe our consultants, contract research organizations and other similar entities with which we are working have performed well; however, if these third parties do not successfully carry out their contractual duties, meet expected deadlines, or comply with applicable regulations, we may be required to replace them. Although we believe that there are a number of other third-party contractors we could engage to continue these activities, we may not be able to enter into arrangements with alternative third-party contractors or to do so on commercially reasonable terms, which may result in a delay of our planned clinical trials. Accordingly, we may be delayed in obtaining regulatory approvals for our product candidates and may be delayed in our efforts to successfully develop our product candidates.

In addition, our third-party contractors are not our employees, and except for remedies available to us under our agreements with such third-party contractors, we cannot control whether or not they devote sufficient time and resources to our ongoing clinical, nonclinical and preclinical programs. If these third parties do not successfully carry out their contractual duties or regulatory obligations or meet expected deadlines, if these third parties need to be replaced, or if the quality or accuracy of the data they obtain is compromised due to the failure to adhere to our clinical protocols or regulatory requirements or for other reasons, our pre-clinical development activities or clinical trials may be extended, delayed, suspended or terminated, and we may not be able to obtain regulatory approval for, or successfully commercialize, our product candidates on a timely basis, if at all, and our business, operating results and prospects may be adversely affected. Furthermore, our third-party clinical trial investigators may be delayed in conducting our clinical trials for reasons outside of their control.

The future results of our current or future clinical trials may not support our product candidate claims or may result in the discovery of unexpected adverse side effects.

Even if our clinical trials are completed as planned, we cannot be certain that their results will support our product candidate claims or that the FDA or foreign authorities will agree with our conclusions regarding them. Success in pre-clinical studies and early clinical trials does not ensure that later clinical trials will be successful, and we cannot be sure that the later trials will replicate the results of prior trials and pre-clinical studies. The clinical trial process may fail to demonstrate that our product candidates are safe and effective for the proposed indicated uses. If FDA concludes that the clinical trials for Actimab™-A, or any other product candidate for which we might seek approval, have failed to demonstrate safety and effectiveness, we would not receive FDA approval to market that product candidate in the United States for the indications sought. In addition, such an outcome could cause us to abandon the product candidate and might delay development of others. Any delay or termination of our clinical trials will delay or preclude the filing of any submissions with the FDA and, ultimately, our ability to commercialize our product candidates and generate revenues. It is also possible that patients enrolled in clinical trials will experience adverse side effects that are not currently part of a product candidate's profile. In addition, our clinical trials for Actimab™-A involve a relatively small patient population. Because of the small sample size, their results may not be indicative of future results.

Our product candidates for which we intend to seek approval as biologic products may face competition sooner than anticipated.

Our product candidates are regulated by the FDA as biologic products and we intend to seek approval for these products pursuant to the BLA pathway. The Biologics Price Competition and Innovation Act of 2009, or BPCIA, created an abbreviated pathway for the approval of biosimilar and interchangeable biologic products. The abbreviated regulatory pathway establishes legal authority for the FDA to review and approve biosimilar biologics, including the possible designation of a biosimilar as "interchangeable" based on its similarity to an existing brand product. Under the BPCIA, an application for a biosimilar product cannot be approved by the FDA until 12 years after the original branded product was approved under a BLA. The law is complex and is still being interpreted and implemented by the FDA. As a result, its ultimate impact, implementation, and meaning are subject to uncertainty. While it is uncertain when such processes intended to implement BPCIA may be fully adopted by the FDA, any such processes could have a material adverse effect on the future commercial prospects for our biologic products.

Actimab™-A and future product candidates may never achieve market acceptance.

Actimab™-A and future product candidates that we may develop may never gain market acceptance among physicians, patients and the medical community. The degree of market acceptance of any of product will depend on a number of factors, including the actual and perceived effectiveness and reliability of the product; the results of any long-term clinical trials relating to use of the product; the availability, relative cost and perceived advantages and disadvantages of alternative technologies; the degree to which treatments using the product are approved for reimbursement by public and private insurers; the strength of our marketing and distribution infrastructure; and the level of education and awareness among physicians and hospitals concerning the product.

Failure of Actimab™-A or any of our other product candidates to significantly penetrate current or new markets would negatively impact our business financial condition and results of operations**.**

To be commercially successful, physicians must be persuaded that using our product candidates for treatment of AML and other cancers, if approved for those indications, are effective alternatives to existing therapies and treatments.

We believe that oncologists and other physicians will not widely adopt a product candidate unless they determine, based on experience, clinical data, and published peer-reviewed journal articles, that the use of that product candidate provides an effective alternative to other means of treating specific cancers. Patient studies or clinical experience may indicate that treatment with our product candidates does not provide patients with sufficient benefits in extension of life or quality of life. We believe that recommendations and support for the use of each product candidate from influential physicians will be essential for widespread market acceptance. Our product candidates are still in the development stage and it is premature to attempt to gain support from physicians at this time. We can provide no assurance that such support will ever be obtained. If our product candidates do not receive such support from these physicians and from long-term data, physicians may not use or continue to use, and hospitals may not purchase or continue to purchase, them.

Both before and after marketing approval, our product candidates are subject to ongoing regulatory requirements and continued regulatory review, and if we fail to comply with these continuing regulatory requirements, we could be subject to a variety of sanctions and the sale of any approved products could be suspended.

Both before and after regulatory approval to market a particular product candidate, the manufacturing, labeling, packaging, adverse event reporting, storage, advertising, promotion, distribution and record keeping related to the product are subject to extensive, ongoing regulatory requirements enforced by FDA and other similar regulatory bodies. Additionally, because our product candidates include radio-active isotopes, they will be subject to additional regulation and oversight from the United States Nuclear Regulatory Commission (NRC) and similar bodies in other jurisdictions. The FDA regulatory requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with cGMP requirements and GCP requirements for any clinical trials that we conduct post-approval. Any regulatory approvals that we receive for our product candidates may also be subject to limitations on the approved indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase IV clinical trials, and surveillance to monitor the safety and efficacy of the product candidate. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with our third-party manufacturers or manufacturing processes, or failure to comply with the regulatory requirements of the FDA and other applicable U.S. and foreign regulatory authorities could subject us to administrative or judicially imposed sanctions, including:

- restrictions on the marketing of our products or their manufacturing processes;
- warning letters;
- civil or criminal penalties;
- fines;
- injunctions;
- product seizures or detentions;
- import or export bans;
- voluntary or mandatory product recalls and related publicity requirements;
- suspension or withdrawal of regulatory approvals;

- total or partial suspension of production; and
- refusal to approve pending applications for marketing approval of new products or supplements to approved applications.

The FDA's policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained, which would adversely affect our business, prospects and ability to achieve or sustain profitability.

Even if regulatory approval of a product candidate is granted, such approval may be subject to limitations on the intended uses for which a product may be marketed and reduce the potential to successfully commercialize that product and generate revenue from that product. If the FDA determines that the product promotional materials, labeling, training or other marketing or educational activities constitute promotion of an unapproved use, it could request that we or our commercialization partners cease or modify our training or promotional materials or subject us to regulatory enforcement actions. It is also possible that other federal, state or foreign enforcement authorities might take action if they consider such training or other promotional materials to constitute promotion of an unapproved use, which could result in significant fines or penalties under other statutory authorities, such as laws prohibiting false claims for reimbursement.

Our revenue stream will depend upon third party coverage and reimbursement of our product candidates, if approved.

The commercial success of our product candidates in both domestic and international markets will be substantially dependent on whether third-party coverage and reimbursement is available for patients that use our products. However, the availability of insurance coverage and reimbursement for newly approved cancer therapies is uncertain, and therefore, third-party coverage may be particularly difficult to obtain even if our products are approved by the FDA as safe and efficacious. Patients using existing approved therapies are generally reimbursed all or part of the product cost by Medicare or other third-party payors. Medicare, Medicaid, health maintenance organizations and other third-party payors are increasingly attempting to contain healthcare costs by limiting both coverage and the level of reimbursement of new drugs, and, as a result, they may not cover or provide adequate payment for these products. Submission of applications for reimbursement approval generally does not occur prior to the filing of a BLA for that product and may not be granted until many months after BLA approval. In order to obtain coverage and reimbursement for these products, we or our commercialization partners may have to agree to a net sales price lower than the net sales price we might charge in other sales channels. The continuing efforts of government and third-party payors to contain or reduce the costs of healthcare may limit our revenue. Initial dependence on the commercial success of our products may make our revenues particularly susceptible to any cost containment or reduction efforts.

We have no manufacturing capacity and depend on third-party manufacturers to produce our pre-clinical and clinical trial drug supplies.

We do not currently operate manufacturing facilities for pre-clinical or clinical production of any of our product candidates. We lack experience in drug manufacturing, and we lack the resources and the capabilities to manufacture any of our product candidates on a clinical or commercial scale. As a result, we rely on a third-party manufacturer to supply, store, and distribute pre-clinical and clinical supply of our product candidates, and plan to continue to do so for the foreseeable future. Any performance failure on the part of our existing or future manufacturers could delay clinical development or regulatory approval of our product candidates or commercialization of any approved products, producing additional losses and depriving us of potential product revenue.

Our product candidates require precise, high quality manufacturing. Failure by our contract manufacturer to achieve and maintain high manufacturing standards could result in patient injury or death, product recalls or withdrawals, delays or failures in testing or delivery, cost overruns, or other problems that could seriously hurt our business. Contract manufacturers may encounter difficulties involving production yields, quality control, and quality assurance. These manufacturers are subject to ongoing periodic and unannounced inspections by the FDA and corresponding state and foreign agencies to ensure strict compliance with cGMPs and other applicable government regulations and corresponding foreign standards; however, we do not have control over third-party manufacturers' compliance with these regulations and standards.

If a contract manufacturer cannot perform as agreed, we may be required to replace it. We may incur added costs and delays in identifying and qualifying replacements because the FDA must approve any replacement manufacturer prior to manufacturing our product candidates. Such approval would require new testing and compliance inspections. In addition, a new manufacturer would have to be educated in, or develop substantially equivalent processes for, production of our product candidates after receipt of FDA approval.

We anticipate continued reliance on third parties for manufacturing and marketing, if we are successful in obtaining marketing approval from the FDA and other regulatory agencies for any of our product candidates. If we are not able to secure favorable arrangements with such third parties, our business and financial condition would be harmed, and our commercialization of any of our product candidates may be halted, delayed or made less profitable if those third parties fail to obtain such approvals, fail to provide us with sufficient quantities of product or fail to do so at acceptable quality levels or prices.

To date, our product candidates have been manufactured in small quantities for preclinical and clinical testing by third-party manufacturers. If the FDA or other regulatory agencies approve any of our product candidates for commercial sale, we expect that we would continue to rely, at least initially, on third-party specialized manufacturers to produce commercial quantities of approved products. These manufacturers may not be able to successfully increase the manufacturing capacity for any approved product in a timely or economic manner, or at all. Significant scale-up of manufacturing may require additional validation studies, which the FDA must review and approve. If third party manufacturers are unable to successfully increase the manufacturing capacity for a product candidate, or we are unable to establish our own manufacturing capabilities, the commercial launch of any approved products may be delayed or there may be a shortage in supply, which in turn could have a material adverse effect on our business.

In addition, the facilities used by our contract manufacturers to manufacture our product candidates must be approved by the FDA pursuant to inspections that will be conducted after we submit a BLA to the FDA. We do not control the manufacturing process of, and are completely dependent on, our contract manufacturing partners for compliance with cGMPs. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or other regulatory authorities, they will not be able to secure and/or maintain regulatory approval for their manufacturing facilities. If the FDA or a comparable foreign regulatory authority does not approve these facilities for the manufacture of our product candidates or if it withdraws any such approval in the future, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain regulatory approval for or market our product candidates, if approved.

We also intend to partner with larger pharmaceutical companies for the commercialization of any of our product candidates that are approved. In connection with our efforts to commercialize our product candidates, we will seek to secure favorable arrangements with third parties to distribute, promote, market and sell them. If we are not able to secure favorable commercial terms or arrangements with third parties for distribution, marketing, promotion and sales of our product candidates, we may have to retain promotional and marketing rights and seek to develop the commercial resources necessary to promote or co-promote or co-market certain or all of our product candidates to the appropriate channels of distribution in order to reach the specific medical market that we are targeting. We may not be able to enter into any partnering arrangements on this or any other basis. If we are not able to secure favorable partnering arrangements, or are unable to develop the appropriate resources necessary for the commercialization of our product candidates, our business and financial condition could be harmed. In addition, we will have to hire additional employees or consultants, since our current employees have limited experience in these areas. Sufficient employees with relevant skills may not be available to us. Any increase in the number of our employees would increase our expense level, and could have an adverse effect on our financial position.

In addition, we, or our potential commercial partners, may not successfully introduce our product candidates or they may not achieve acceptance by patients, health care providers and insurance companies. Further, it is possible that we may not be able to secure arrangements to manufacture, market, distribute, promote and sell our product candidates at favorable commercial terms that would permit us to make a profit. To the extent that corporate partners conduct clinical trials, we may not be able to control the design and conduct of these clinical trials.

We may have conflicts with our partners that could delay or prevent the development or commercialization of our product candidates.

We may have conflicts with our partners, such as conflicts concerning the interpretation of preclinical or clinical data, the achievement of milestones, the interpretation of contractual obligations, payments for services, development obligations or the ownership of intellectual property developed during our collaboration. If any conflicts arise with any of our partners, such partner may act in a manner that is adverse to our best interests. Any such disagreement could result in one or more of the following, each of which could delay or prevent the development or commercialization of our product candidates, and in turn prevent us from generating revenues: unwillingness on the part of a partner to pay us milestone payments or royalties we believe are due under a collaboration; uncertainty regarding ownership of intellectual property rights arising from our collaborative activities, which could prevent us from entering into additional collaborations; unwillingness by the partner to cooperate in the development or manufacture of the product, including providing us with product data or materials; unwillingness on the part of a partner to keep us informed regarding the progress of its development and commercialization activities or to permit public disclosure of the results of those activities; initiating litigation or alternative dispute resolution options by either party to resolve the dispute; or attempts by either party to terminate the agreement.

Upon commercialization of our product candidates, we may be dependent on third parties to market, distribute and sell them.

Our ability to generate revenues may be dependent upon the sales and marketing efforts of any future co-marketing partners and third-party distributors. At this time, we have not entered into an agreement with any commercialization partner and only plan to do so after the successful completion of Phase 2 clinical trials and prior to commercialization. If we fail to reach an agreement with any commercialization partner, or if upon reaching such an agreement that partner fails to sell a large volume of our products, it may have a negative impact on our business, financial condition and results of operations.

Our product candidates will face significant competition in the markets for them, and if they are unable to compete successfully, our business will suffer.

Our product candidates face, and will continue to face, intense competition from large pharmaceutical companies, as well as academic and research institutions. We compete in an industry that is characterized by (i) rapid technological change, (ii) evolving industry standards, (iii) emerging competition and (iv) new product introductions. Our competitors have existing products and technologies that will compete with our product candidates and technologies and may develop and commercialize additional products and technologies that will compete with our product candidates and technologies. Because several competing companies and institutions have greater financial resources than us, they may be able to (i) provide broader services and product lines, (ii) make greater investments in research and development, or R&D, and (iii) carry on broader R&D initiatives. Our competitors also have greater development capabilities than we do and have substantially greater experience in undertaking preclinical and clinical testing of product candidates, obtaining regulatory approvals, and manufacturing and marketing pharmaceutical products. They also have greater name recognition and better access to customers than us. Our chief competitors include companies such as Bayer AG, GlaxoSmithKline Plc and Spectrum Pharmaceuticals, Inc. and others.

If side effects are identified during the time our product candidates are in development or after they are approved and on the market, we may choose to or be required to perform lengthy additional clinical trials, discontinue development of the affected product candidate, change the labeling of any such products, or withdraw or recall any such products from the market, any of which would hinder or preclude our ability to generate revenues.

Undesirable side effects caused by our product candidates could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or other comparable foreign authorities. The drug-related side effects could affect patient recruitment or the ability of enrolled patients to complete the trial or result in potential product liability claims. Any of these occurrences may harm our business, financial condition and prospects significantly. Even if any of our product candidates receives marketing approval, as greater numbers of patients use a product following its approval, an increase in the incidence of side effects or the incidence of other post-approval problems that were not seen or anticipated during pre-approval clinical trials could result in a number of potentially significant negative consequences, including:

- regulatory authorities may withdraw their approval of the product;
- regulatory authorities may require the addition of labeling statements, such as warnings or contraindications;
- we may be required to change the way the product is administered, conduct additional clinical trials or change the labeling of the product;
- we may elect, or we may be required, to recall or withdraw product from the market;
- we could be sued and held liable for harm caused to patients; and
- our reputation may suffer.

Any of these events could substantially increase the costs and expenses of developing, commercializing and marketing any such product candidates or could harm or prevent sales of any approved products.

Our business depends upon securing and protecting critical intellectual property.

Our commercial success will depend in part on our obtaining and maintaining patent, trade secret, copyright and trademark protection of our technologies in the United States and other jurisdictions, as well as successfully enforcing this intellectual property and defending this intellectual property against third-party challenges. We will only be able to protect our technologies from unauthorized use by third parties to the extent that valid and enforceable intellectual property protection, such as patents or trade secrets law, cover them. In particular, we place considerable emphasis on obtaining patent and trade secret protection for significant new technologies, products and processes. Furthermore, the degree of future protection of our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. Moreover, the degree of future protection of our proprietary rights is uncertain for product candidates that are currently in the early stages of development because we cannot predict which of these product candidates will ultimately reach the commercial market or whether the commercial versions of these product candidates will incorporate proprietary technologies.

Our patent position is highly uncertain and involves complex legal and factual questions.

Accordingly, we cannot predict the breadth of claims that may be allowed or enforced under our patents or in third-party patents. For example, we or our licensors might not have been the first to make the inventions covered by each of our pending patent applications and issued patents; we or our licensors might not have been the first to file patent applications for these inventions; others may independently develop similar or alternative technologies or duplicate any of our technologies; it is possible that none of our pending patent applications or the pending patent applications of our licensors will result in issued patents; our issued patents and issued patents of our licensors may not provide a basis for commercially viable technologies, or may not provide us with any competitive advantages, or may be challenged and invalidated by third parties; and, we may not develop additional proprietary technologies that are patentable.

As a result, our owned and licensed patents may not be valid and we may not be able to obtain and enforce patents and to maintain trade secret protection for the full commercial extent of our technology. The extent to which we are unable to do so could materially harm our business.

We or our licensors have applied for and will continue to apply for patents for certain products. Such applications may not result in the issuance of any patents, and any patents now held or that may be issued may not provide us with adequate protection from competition. Furthermore, it is possible that patents issued or licensed to us may be challenged successfully. In that event, if we have a preferred competitive position because of such patents, such preferred position would be lost. If we are unable to secure or to continue to maintain a preferred position, we could become subject to competition from the sale of generic products. Failure to receive, inability to protect, or expiration of our patents for medical use, manufacture, conjugation and labeling of Ac-225, the antibodies that we license from third parties, or subsequent related filings, would adversely affect our business and operations.

Patents issued or licensed to us may be infringed by the products or processes of others. The cost of enforcing our patent rights against infringers, if such enforcement is required, could be significant, and we do not currently have the financial resources to fund such litigation. Further, such litigation can go on for years and the time demands could interfere with our normal operations. There has been substantial litigation and other proceedings regarding patent and other intellectual property rights in the pharmaceutical industry. We may become a party to patent litigation and other proceedings. The cost to us of any patent litigation, even if resolved in our favor, could be substantial. Some of our competitors may be able to sustain the costs of such litigation more effectively than we can because of their substantially greater financial resources. Litigation may also absorb significant management time.

Unpatented trade secrets, improvements, confidential know-how and continuing technological innovation are important to our scientific and commercial success. Although we attempt to and will continue to attempt to protect our proprietary information through reliance on trade secret laws and the use of confidentiality agreements with our partners, collaborators, employees and consultants and other appropriate means, these measures may not effectively prevent disclosure of our proprietary information, and, in any event, others may develop independently, or obtain access to, the same or similar information.

Certain of our patent rights are licensed to us by third parties. If we fail to comply with the terms of these license agreements, our rights to those patents may be terminated, and we will be unable to conduct our business.

If we are found to be infringing on patents or trade secrets owned by others, we may be forced to cease or alter our product development efforts, obtain a license to continue the development or sale of our products, and/or pay damages.

Our manufacturing processes and potential products may violate proprietary rights of patents that have been or may be granted to competitors, universities or others, or the trade secrets of those persons and entities. As the pharmaceutical industry expands and more patents are issued, the risk increases that our processes and potential products may give rise to claims that they infringe the patents or trade secrets of others. These other persons could bring legal actions against us claiming damages and seeking to enjoin clinical testing, manufacturing and marketing of the affected product or process. If any of these actions are successful, in addition to any potential liability for damages, we could be required to obtain a license in order to continue to conduct clinical tests, manufacture or market the affected product or use the affected process. Required licenses may not be available on acceptable terms, if at all, and the results of litigation are uncertain. If we become involved in litigation or other proceedings, it could consume a substantial portion of our financial resources and the efforts of our personnel.

Our ability to protect and enforce our patents does not guarantee that we will secure the right to commercialize our patents.

A patent is a limited monopoly right conferred upon an inventor, and his successors in title, in return for the making and disclosing of a new and non-obvious invention. This monopoly is of limited duration but, while in force, allows the patent holder to prevent others from making and/or using its invention. While a patent gives the holder this right to exclude others, it is not a license to commercialize the invention where other permissions may be required for commercialization to occur. For example, a drug cannot be marketed without the appropriate authorization from the FDA, regardless of the existence of a patent covering the product. Further, the invention, even if patented itself, cannot be commercialized if it infringes the valid patent rights of another party.

We rely on confidentiality agreements to protect our trade secrets. If these agreements are breached by our employees or other parties, our trade secrets may become known to our competitors.

We rely on trade secrets that we seek to protect through confidentiality agreements with our employees and other parties. If these agreements are breached, our competitors may obtain and use our trade secrets to gain a competitive advantage over us. We may not have any remedies against our competitors and any remedies that may be available to us may not be adequate to protect our business or compensate us for the damaging disclosure. In addition, we may have to expend resources to protect our interests from possible infringement by others.

The use of hazardous materials, including radioactive and biological materials, in our research and development efforts imposes certain compliance costs on us and may subject us to liability for claims arising from the use or misuse of these materials.

Our research, development and manufacturing activities involves the controlled use of hazardous materials, including chemicals, radioactive and biological materials, such as radioactive isotopes. We are subject to federal, state, local and foreign environmental laws and regulations governing, among other matters, the handling, storage, use and disposal of these materials and some waste products. We cannot completely eliminate the risk of contamination or injury from these materials and we could be held liable for any damages that result, which could exceed our financial resources. We currently maintain insurance coverage for injuries resulting from the hazardous materials we use; however, future claims may exceed the amount of our coverage. Also, we do not have insurance coverage for pollution cleanup and removal. Currently the costs of complying with such federal, state, local and foreign environmental regulations are not significant, and consist primarily of waste disposal expenses. However, they could become expensive, and current or future environmental laws or regulations may impair our research, development, production and commercialization efforts.

We may undertake international operations, which will subject us to risks inherent with operations outside of the United States.

Although we do not have any foreign operations at this time, we intend to seek market clearances in foreign markets that we believe will generate significant opportunities. However, even with the cooperating of a commercialization partner, conducting drug development in foreign countries involves inherent risks, including, but not limited to difficulties in staffing, funding and managing foreign operations; unexpected changes in regulatory requirements; export restrictions; tariffs and other trade barriers; difficulties in protecting, acquiring, enforcing and litigating intellectual property rights; fluctuations in currency exchange rates; and potentially adverse tax consequences.

If we were to experience any of the difficulties listed above, or any other difficulties, any international development activities and our overall financial condition may suffer and cause us to reduce or discontinue our international development and registration efforts.

We may not be successful in hiring and retaining key employees.

Our future operations and successes depend in large part upon the continued service of key members of our senior management team whom we are highly dependent upon to manage our business. If any member of our current senior management terminates his or her employment with us, such a departure may have a material adverse effect on our business.

Our future success also depends on our ability to identify, attract, hire or engage, retain and motivate other well-qualified managerial, technical, clinical and regulatory personnel. There can be no assurance that such professionals will be available in the market, or that we will be able to retain existing professionals or meet or continue to meet their compensation requirements. Furthermore, the cost base in relation to such compensation, which may include equity compensation, may increase significantly, which could have a material adverse effect on us. Failure to establish and maintain an effective management team and work force could adversely affect our ability to operate, grow and manage our business.

We may be subject, directly or indirectly, to federal and state healthcare fraud and abuse laws, false claims laws, and health information privacy and security laws. If we are unable to comply, or have not fully complied, with such laws, we could face substantial penalties.

If we obtain FDA approval for any of our product candidates and begin commercializing those products in the United States, our operations may be directly, or indirectly through our customers, subject to various federal and state fraud and abuse laws, including, without limitation, the federal Anti-Kickback Statute, the federal False Claims Act, and physician sunshine laws and regulations. These laws may impact, among other things, our proposed sales, marketing, and education programs. In addition, we may be subject to patient privacy regulation by both the federal government and the states in which we conduct our business. The laws that may affect our ability to operate include:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons from knowingly and willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, to induce, or in return for, the purchase or recommendation of an item or service reimbursable under a federal healthcare program, such as the Medicare and Medicaid programs;

- federal civil and criminal false claims laws and civil monetary penalty laws, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid, or other third-party payors that are false or fraudulent;

- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which created federal criminal statutes that prohibit executing a scheme to defraud any healthcare benefit program and making false statements relating to healthcare matters;

- HIPAA, as amended by the Health Information Technology and Clinical Health Act, or HITECH, and its implementing regulations, which imposes certain requirements relating to the privacy, security, and transmission of individually identifiable health information;

- the federal physician sunshine requirements under PPACA, which require certain manufacturers of drugs, devices, biologics, and medical supplies to report annually to the U.S. Department of Health and Human Services information related to payments and other transfers of value to physicians, other healthcare providers, and teaching hospitals, and ownership and investment interests held by physicians and other healthcare providers and their immediate family members and applicable group purchasing organizations;

- state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws that may apply to items or services reimbursed by any third-party payor, including commercial insurers; state laws that require pharmaceutical companies to comply with the industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government, or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state laws that require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures; and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways, thus complicating compliance efforts.

Because of the breadth of these laws and the narrowness of the statutory exceptions and safe harbors available, it is possible that some of our business activities could be subject to challenge under one or more of such laws. In addition, recent health care reform legislation has strengthened these laws. For example, the PPACA, among other things, amends the intent requirement of the federal anti-kickback and criminal healthcare fraud statutes. A person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it to have committed a violation. Moreover, the PPACA provides that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act.

If our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines, exclusion from participation in government health care programs, such as Medicare and Medicaid, imprisonment, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

Healthcare legislative reform measures may have a material adverse effect on our business and results of operations.

In March 2010, President Obama signed the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act (collectively, "PPACA"), which makes changes that are expected to significantly impact the pharmaceutical industries. One of the principal aims of the PPACA as currently enacted is to expand health insurance coverage to approximately 32 million Americans who are currently uninsured. The consequences of this significant coverage expansion on the sales of our products, once they are developed, are unknown and speculative at this point.

The PPACA contains a number of provisions designed to generate the revenues necessary to fund the coverage expansions among other things. This includes new fees and taxes on manufacturers of certain branded prescription drugs, an abbreviated pathway for approval of biosimilar products, a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected, increases in the minimum Medicaid rebates owed by manufacturers under the Medicaid Drug Rebate Program and an extension of the rebate program to individuals enrolled in Medicaid managed care organizations, and a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D.

The PPACA provisions on comparative clinical effectiveness research extend the initiatives of the American Recovery and Reinvestment Act of 2009, also known as the stimulus package, which included $1.1 billion in funding to study the comparative effectiveness of health care treatments and strategies. This stimulus funding was designated for, among other things, conducting, supporting or synthesizing research that compares and evaluates the risks and benefits, clinical outcomes, effectiveness and appropriateness of products. The PPACA appropriates additional funding to comparative clinical effectiveness research. Although Congress has indicated that this funding is intended to improve the quality of health care, it remains unclear how the research will impact current Medicare coverage and reimbursement or how new information will influence other third-party payor policies.

In addition, other legislative changes have been proposed and adopted since the PPACA was enacted. On August 2, 2011, President Obama signed into law the Budget Control Act of 2011, which, among other things, creates the Joint Select Committee on Deficit Reduction to recommend proposals in spending reductions to Congress. The Joint Select Committee did not achieve a targeted deficit reduction of at least $1.2 trillion for the years 2013 through 2021, which threatened to trigger the legislation's automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers of 2% per fiscal year, which went into effect in April 2013 and will stay in effect through 2024 unless additional Congressional action is taken. On January 2, 2013, Congress passed and President Obama signed the American Taxpayer Relief Act of 2012 which, among other things, further reduced Medicare payments to certain providers, including physicians, hospitals and cancer treatment centers. We expect that the PPACA, as well as other federal or state health care reform measures that may be adopted in the future, could have a material adverse effect on our industry generally and our ability to successfully commercialize our products or could limit or eliminate our spending on certain development projects. The taxes imposed by the PPACA and the expansion in the government's role in the U.S. healthcare industry may result in decreased profits to us, lower reimbursement by payors for our products, and/or reduced medical procedure volumes, all of which may adversely affect our business, financial condition and results of operations.

Managing our growth as we expand operations may strain our resources.

We expect to need to grow rapidly in order to support additional, larger, and potentially international, pivotal clinical trials of our product candidates, which will place a significant strain on our financial, managerial and operational resources. In order to achieve and manage growth effectively, we must continue to improve and expand our operational and financial management capabilities. Moreover, we will need to increase staffing and to train, motivate and manage our employees. All of these activities will increase our expenses and may require us to raise additional capital sooner than expected. Failure to manage growth effectively could materially harm our business, financial condition or results of operations.

We may expand our business through the acquisition of rights to new product candidates that could disrupt our business, harm our financial condition and may also dilute current stockholders' ownership interests in our company.

Our business strategy includes expanding our products and capabilities, and we may seek acquisitions of product candidates, antibodies or technologies to do so. Acquisitions involve numerous risks, including substantial cash expenditures; potentially dilutive issuance of equity securities; incurrence of debt and contingent liabilities, some of which may be difficult or impossible to identify at the time of acquisition; difficulties in assimilating acquired technologies or the operations of the acquired companies; diverting our management's attention away from other business concerns; risks of entering markets in which we have limited or no direct experience; and the potential loss of our key employees or key employees of the acquired companies.

We can make no assurances that any acquisition will result in short-term or long-term benefits to us. We may incorrectly judge the value or worth of an acquired product, company or business. In addition, our future success would depend in part on our ability to manage the rapid growth associated with some of these acquisitions. We cannot assure that we will be able to make the combination of our business with that of acquired products, businesses or companies work or be successful. Furthermore, the development or expansion of our business or any acquired products, business or companies may require a substantial capital investment by us. We may not have these necessary funds or they might not be available to us on acceptable terms or at all. We may also seek to raise funds by selling shares of our preferred or common stock, which could dilute each current stockholder's ownership interest in the Company.

Risks Related to Ownership of Our Common Stock

Because we became public by means of a "reverse merger," we may not be able to attract the attention of major brokerage firms.

Additional risks may exist since we became public through a "reverse merger." Securities analysts of major brokerage firms may not provide coverage of us since there is little incentive to brokerage firms to recommend the purchase of our common stock. We cannot assure you that brokerage firms will want to conduct any secondary offerings on behalf of our company in the future.

The sale of securities by us in any equity or debt financing could result in dilution to our existing stockholders and have a material adverse effect on our earnings.

As of June 30, 2015 we believe that we have enough cash to finance research and development and to cover our ongoing working capital needs through the second quarter 2016, and we have not completed efforts to establish a stable recurring source of revenues sufficient to cover our operating costs for the next twelve months. We have financed our operations primarily through sales of stock and the issuance of convertible promissory notes. It is likely that during the next twelve months we will seek to raise additional capital through the sales of stock and/or issuance of convertible debentures in order to expand our level of operations to continue our research and development efforts.

Any sale of common stock by us in a future private placement offering could result in dilution to the existing stockholders as a direct result of our issuance of additional shares of our capital stock. In addition, our business strategy may include expansion through internal growth or by establishing strategic relationships with targeted customers and vendor. In order to do so, or to finance the cost of our other activities, we may issue additional equity securities that could dilute our stockholders' stock ownership. We may also assume additional debt and incur impairment losses related to goodwill and other tangible assets if we acquire another company and this could negatively impact our earnings and results of operations.

Future sales of a substantial number of shares of our common stock in the public market, or the perception that such sales may occur, could adversely affect the then prevailing market price of our common stock and could make it more difficult for us to raise funds in the future through a public offering of our securities.

Our common stock has been considered a Penny Stock.

During the fiscal year 2013 and through the first quarter of 2015 our common stock has or had been a penny stock, therefore, when our stock is considered a penny stock trading in our securities may be subject to penny stock considerations. Broker-dealer practices in connection with transactions in "penny stocks" are regulated by certain penny stock rules adopted by the SEC.

Penny stocks generally are equity securities with a price of less than $5.00 (other than securities registered on certain national securities exchanges or quoted on the NASDAQ system). Penny stock rules require a broker-dealer, prior to a transaction in a penny stock not otherwise exempt from the rules, to deliver a standardized risk disclosure document that provides information about penny stocks and the risks in the penny stock market. The broker-dealer also must provide the customer with current bid and offer quotations for the penny stock, the compensation of the broker-dealer and its salesperson in the transaction, and monthly account statements showing the market value of each penny stock held in the customer's account. The broker-dealer must also make a special written determination that the penny stock is a suitable investment for the purchaser and receive the purchaser's written agreement to the transaction. These requirements may have the effect of reducing the level of trading activity, if any, in the secondary market for a security that becomes subject to the penny stock rules. The additional burdens imposed upon broker-dealers by such requirements may discourage broker-dealers from effecting transactions in our securities, which could severely limit their market price and liquidity of our securities. These requirements may restrict the ability of broker-dealers to sell our common stock and may affect your ability to resell our common stock.

Our common stock is extremely thinly traded, so you may be unable to sell at or near asking prices or at all if you need to sell your shares to raise money or otherwise desire to liquidate your shares.

Trading volume in our common stock is limited. This may inhibit investment by major institutional investment funds, including mutual funds, as well as individual investors. A higher volume trading market may never develop or be maintained. Active trading markets generally result in lower price volatility and more efficient execution of buy and sell orders. Absence of an active trading market reduces the liquidity of the shares traded there-in.

Our Common Stock is subject to price volatility unrelated to our operations.

The trading volume of our common stock has been and may continue to be extremely limited and sporadic. As a result of such trading activity, the quoted price for our common stock on the NYSE MKT may not necessarily be a reliable indicator of its fair market value.

We expect the market price of our Common Stock to fluctuate substantially due to a variety of factors, including market perception of our ability to achieve our planned growth, quarterly operating results of other companies in the same industry, trading volume in our common stock, changes in general conditions in the economy and the financial markets or other developments affecting the Company's competitors or the Company itself. This volatility has had a significant effect on the market price of securities issued by many companies for reasons unrelated to their operating performance and could have the same effect on our common stock.

Because we do not intend to pay dividends, stockholders will benefit from an investment in our Common Stock only if it appreciates in value.

We have never declared or paid any cash dividends on our Preferred Stock or Common Stock. For the foreseeable future, it is expected that earnings, if any, generated from our operations will be used to finance the growth of our business, and that no dividends will be paid to holders of our Preferred Stock or Common Stock. As a result, the success of an investment in our Preferred Stock or Common Stock will depend upon any future appreciation in its value. There is no guarantee that our Preferred Stock or Common Stock will appreciate in value.

Certain provisions of our Certificate of Incorporation and Bylaws and Delaware law make it more difficult for a third party to acquire us and make a takeover more difficult to complete, even if such a transaction were in the stockholders' interest.

Our Certificate of Incorporation and Bylaws and certain provisions of Delaware State law could have the effect of making it more difficult or more expensive for a third party to acquire, or from discouraging a third party from attempting to acquire, control of the Company, even when these attempts may be in the best interests of our stockholders. For example, we are governed by Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a public Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in a prescribed manner. A "business combination" includes mergers, asset sales or other transactions resulting in a financial benefit to the stockholder. An "interested stockholder" is a person who, together with affiliates and associates, owns, or within three years, did own, 15% or more of the corporation's outstanding voting stock. These provisions may have the effect of delaying, deferring or preventing a change in our control.

Compliance with the reporting requirements of federal securities laws can be expensive.

We are subject to the information and reporting requirements of the Exchange Act and other federal securities laws, and the compliance obligations of the Sarbanes-Oxley Act. The costs of preparing and filing annual and quarterly reports and other information with the SEC and furnishing audited reports to stockholders are substantial. In addition, we will incur substantial expenses in connection with the preparation of registration statements and related documents with respect to the registration of resale of the Common Stock.

Applicable regulatory requirements, including those contained in and issued under the Sarbanes-Oxley Act, may make it difficult for us to retain or attract qualified officers and directors, which could adversely affect the management of its business and its ability to obtain or retain listing of our Common Stock.

We may be unable to attract and retain those qualified officers, directors and members of board committees required to provide for effective management because of the rules and regulations that govern publicly held companies, including, but not limited to, certifications required by principal executive officers. The enactment of the Sarbanes-Oxley Act has resulted in the issuance of a series of related rules and regulations and the strengthening of existing rules and regulations by the SEC, as well as the adoption of new and more stringent rules by the stock exchanges. The perceived increased personal risk associated with these changes may deter qualified individuals from accepting roles as directors and executive officers.

Further, some of these changes heighten the requirements for board or committee membership, particularly with respect to an individual's independence from the corporation and level of experience in finance and accounting matters. We may have difficulty attracting and retaining directors with the requisite qualifications. If we are unable to attract and retain qualified officers and directors, the management of our business and our ability to obtain or retain listing of our shares of Common Stock on any stock exchange (assuming we elect to seek and are successful in obtaining such listing) could be adversely affected.

If we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results or detect fraud. Investors could lose confidence in our financial reporting and this may decrease the trading price of our Common Stock.

We must maintain effective internal controls to provide reliable financial reports and detect fraud. As disclosed in this report, we have previously identified material weaknesses in our internal control over financial reporting because we did not have sufficient written policies and procedures for accounting and financial reporting and we did not have effective controls over period end financial disclosures and reporting processes. During 2014, our management remediated these previously identified material weaknesses. In future periods, we may identify additional deficiencies in our system of internal controls over financial reporting that may require remediation. There can be no assurances that any such future deficiencies identified may not be material weaknesses that would be required to be reported in future periods. Failure to maintain an effective system of internal controls could harm our operating results and cause investors to lose confidence in our reported financial information. Any such loss of confidence would have a negative effect on the trading price of our Common Stock.

The price of our common stock may become volatile, which could lead to losses by investors and costly securities litigation.

The trading price of our Common Stock may be highly volatile and could fluctuate in response to factors such as:

- actual or anticipated variations in our operating results;
- announcements of developments by us or our competitors;
- the timing of IND and/or BLA approval, the completion and/or results of our clinical trials;
- regulatory actions regarding our products;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- adoption of new accounting standards affecting the our industry;
- additions or departures of key personnel;
- introduction of new products by us or our competitors;
- sales of the our Common Stock or other securities in the open market; and
- other events or factors, many of which are beyond our control.

The stock market is subject to significant price and volume fluctuations. In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been initiated against such a company. Litigation initiated against us, whether or not successful, could result in substantial costs and diversion of our management's attention and Company resources, which could harm our business and financial condition.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES.

None

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION.

Item 1.01 Entry into a Material Definitive Agreement.

As previously disclosed, on September 9, 2013, the Board of Directors (the "Board") of Actinium Pharmaceuticals, Inc. (the "Company") approved the Company's 2013 Stock Plan (the "Stock Plan") and 2013 Equity Incentive Plan (the "Equity Plan"), each described in greater detail in the Company's Form 8-K, filed with the United States Securities and Exchange Commission on September 9, 2013. Effective August 6, 2015, the Board has approved an amendment to the Stock Plan (the "First Stock Plan Amendment") and an amendment to the Equity Plan (the "First Equity Plan Amendment" and, together with the First Stock Plan Amendment, the "Plan Amendments"). Among other things, the Plan Amendments update the underlying documents to provide a uniform definition of "change of control" among the two plans and provide for accelerated vesting of all awards granted under each plan in the event of a change of control of the Company. The Board believes that these amendments will further align the interests of officers, directors, key employees, and consultants, with those of stockholders, motivate them to achieve key financial goals, and reward superior performance over a multi-year period.

In addition, the Company intends to enter into indemnification agreements (the "Indemnification Agreements") with each of the Company's directors and executive officers, a form of which is attached hereto as Exhibit 10.3 and is incorporated herein by reference.

The First Stock Plan Amendment, the First Equity Plan Amendment, and the form of Indemnification Agreement are attached hereto as Exhibits 10.1, 10.2, and 10.3, respectively, and are incorporated herein by reference. The above descriptions are only summaries of the terms of those agreements, do not purport to be complete descriptions of such documents, and are qualified in their entirety by reference to the First Stock Plan Amendment, the First Equity Plan Amendment, and the Indemnification Agreement, copies of which are attached as exhibits hereto and which are incorporated by reference in this Item 1.01.

Item 5.03 Amendments to Articles of Incorporation or Bylaws; Change in Fiscal Year.

Effective as of August 6, 2015, the Board amended the Company's Amended and Restated Bylaws (such amendment, the "Bylaws Amendment"). Among other things, the Bylaws Amendment (which is made a part of the Amended and Restated Bylaws of the Company) establishes advance notice requirements for nominations for election to the Company's board of directors and for proposals of business to be acted upon at stockholder meetings. For example, the Bylaws Amendment requires that, to be timely, a stockholder's notice submitting a proposal of business or director nomination for consideration at the Company's annual stockholder meeting must be delivered to the secretary of the Company at the Company's principal executive offices by the close of business on not later than the close of business on the 120th day, and not earlier than the close of business on the 150th day, prior to the first anniversary of the preceding year's annual meeting; *provided*, *however*, that in the event that the date of the annual meeting is advanced more than 30 days prior to or delayed more than 30 days after the anniversary date of the preceding year's annual meeting, notice by the stockholder, to be timely, must be so delivered not later than the later of the close of business on the later of the 120th day prior to such annual meeting and the 10th day following the day on which notice of the date of such meeting is first given to the stockholders, and not earlier than the close of business on the 150th day prior to such annual meeting. The Bylaws Amendment also provides for notice procedures in the case of stockholder proposals for business or director nominations (if applicable) at special meetings. In addition, the Bylaws Amendment requires that in order to be eligible to be a stockholder nominee for election as a director of the Company, the nominating stockholder must provide additional information to the Company, which is described in the Bylaws Amendment.

In order to be eligible for inclusion on the Company's proxy statement relating to the Company's 2015 annual meeting of stockholders (the "2015 Meeting"), the Company must receive stockholder proposals at its principal executive office no later than July 20, 2015. Following the adoption of the Bylaws Amendment, to be considered for presentation at the 2015 annual meeting, although not included in the proxy statement, proposals must be received by the secretary of the Company no earlier than July 25, 2015 (which is 150 days before December 22, 2015, the anniversary date of the 2014 annual meeting of stockholders the "Meeting Anniversary") and no later than August 24, 2015 (which is 120 days before the Meeting Anniversary); *provided, that*, if the date of the 2015 annual meeting of stockholders is more than 30 days before or more than 30 days after the anniversary date of the 2014 annual meeting of stockholders, such dates shall change as described in the Bylaws Amendment. For the avoidance of doubt, even if such a stockholder meets the timing requirements set forth in the Bylaws Amendment, such stockholder must otherwise comply with the other requirements set forth in the Bylaws Amendment.

A copy of the Bylaws Amendment is attached hereto as Exhibit 3.1 and is incorporated herein by reference. The above description of the Bylaws Amendment is only a summary of the terms of such document, does not purport to be a complete description of such document, and is qualified in its entirety by reference to the Bylaws Amendment, a copy of which is attached as an exhibit hereto and which is incorporated by reference into this Item 5.03.

Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

On August 6, 2015, the Company entered into an amended and restated consulting agreement with Mr. Sandesh Seth (the "Seth Agreement"), an amendment to the employment agreement with Mr. Dragan Cicic (the "Cicic Agreement") and amended and restated employment agreement with Mr. Kaushik Dave (the "Dave Agreement") and, together with the Seth Agreement and Cicic Agreement, the "Agreements"). Among other things, the Seth Agreement and Dave Agreement revise the previously disclosed underlying agreements to provide substantial uniformity among various provisions of the two agreements, to enhance severance benefits, including in the event of a change of control of the Company, and to provide for immediate vesting of options in accordance with the amended Stock Plan and Equity Plan. The Dave Agreement also changes Dr. Dave's title from "President and Chief Executive Officer" to "Chief Executive Officer". Pursuant to the Cicic Amendment, Dr. Cicic's title was changed to Chief Medical Officer from Chief Operating Officer and Chief Medical Officer.

Forms of the Seth Agreement, Dave Agreement, and Cicic Agreement are attached hereto as Exhibits 10.4,10.5, and 10.6, respectively, and are incorporated herein by reference. The above descriptions of the Agreements are only summaries of the terms of those agreements, do not purport to be complete descriptions of such documents, and are qualified in their entirety by reference to the Seth Agreement, the Dave Agreement, and cicic Amendment, copies of which are attached as exhibits hereto and which are incorporated by reference into this Item 5.02.

In addition, the information relating to the Indemnification Agreements described in Item 1.01 above is incorporated into this Item 5.02 by reference.

ITEM 6. EXHIBITS

Copies of the following documents are included as exhibits to this report pursuant to Item 601 of Regulation S-K.

Exhibit No.	Title of Document	Location
3.1	Amendment to Amended and Restated Bylaws	Attached
10.1	First Amendment to 2013 Amended and Restated Stock Plan	Attached
10.2	First Amendment to 2013 Amended and Restated Equity Incentive Plan	Attached
10.3	Form of Indemnification Agreement	Attached
10.4	Amended and Restated Consulting Agreement, dated August 6, 2015, by and between Actinium Pharmaceuticals, Inc and Sandesh Seth	Attached
10.5	Amended and Restated Employment Agreement, dated August 6, 2015, by and between Actinium Pharmaceuticals, Inc and Kaushik Dave	Attached
10.6	Amendment to Employment Agreement, dated August 6, 2015, by and between Actinium Pharmaceuticals, Inc. and Dragan Cicic	Attached
31	Certification of the Principal Executive Officer and Principal Financial and Accounting Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	Attached
32	Certification of the Principal Executive Officer and Principal Financial and Accounting Officer pursuant to U.S.C. Section 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002*	Attached
101.INS	XBRL Instance Document	Attached
101.SCH	XBRL Taxonomy Extension Schema Document	Attached
101.CAL	XBRL Taxonomy Calculation Linkbase Document	Attached
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	Attached
101.LAB	XBRL Taxonomy Label Linkbase Document	Attached
101.PRE	XBRL Taxonomy Presentation Linkbase Document	Attached

* The Exhibit attached to this Form 10-Q shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or otherwise subject to liability under that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such filing.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

ACTINIUM PHARMACEUTICALS, INC.

Date: August 7, 2015

By: */s/ Kaushik J. Dave*
Kaushik J. Dave
Chief Executive Officer and
Interim Chief Financial Officer
(Duly Authorized Officer, Principal Executive Officer and Interim Principal Financial and Accounting Officer)

Exhibit 3.1

AMENDMENT TO THE AMENDED AND RESTATED BYLAWS
APPROVED BY THE BOARD OF DIRECTORS OF
ACTINIUM PHARMACEUTICALS, INC.
EFFECTIVE AS OF AUGUST 6, 2015

Section 2.1 of the Amended and Restated Bylaws (the "Bylaws") of Actinium Pharmaceuticals, Inc. (the "Corporation") is hereby amended to replace Section 2.1 thereof, and the following Section 2.1 be, and hereby is, is authorized, approved and adopted in all respects and, as amended, said Section 2.1 shall be deemed to read as follows:

"**Section 2.1 Annual Meeting**

(a) An annual meeting of the stockholders, for the election of directors to succeed those whose terms expire and for the transaction of such other business as may properly come before the meeting, shall be held at a location, either within or without the State of Delaware, and at such time each year as designated by the Board of Directors. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held solely by means of remote communication. The Board of Directors may adopt guidelines and procedures governing the participation of stockholders and proxy holders not physically present at a meeting of stockholders by means of remote communication.

(b) At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting.

(i) To be properly brought before an annual meeting, business must be (A) specified in the Corporation's notice of meeting (or any supplement thereto) given by or at the direction of the Board of Directors, (B) otherwise properly brought before the meeting by or at the direction of the Board of Directors, or (C) otherwise properly brought before the meeting by a stockholder in accordance with Sections 2.1(b)(ii)-(iv) and Section 2.1(c)-(e) below.

(ii) For business to be properly brought before an annual meeting by a stockholder, (A) the stockholder must have been a stockholder of record at the time of giving the notice provided for in this Section 2.1, (B) the stockholder must be a stockholder on the record date for the determination of stockholders entitled to vote at the annual meeting, (C) the stockholder must be entitled to vote at the meeting, (D) the stockholder must have given timely notice thereof, pursuant to this Section 2.1, in writing to the Secretary of the Corporation, and (E) such business must be a proper matter for stockholder action under the Delaware General Corporation Law.

(iii) Any notice given by the stockholder pursuant to this Section 2.1 shall set forth:

(A) the name and address of the stockholder providing the notice, as they appear on the Corporation's books, and of the other proposing persons;

(B) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting, and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made;

(C) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made, (x) the name and address of such stockholder, as they appear on the Corporation's books, and of such beneficial owner and (y) the class and number of shares of the Corporation which are owned beneficially and of record by such stockholder and such beneficial owner;

(D) a representation that each proposing person shall notify, as promptly as practicable, the Corporation in writing of the class and number of shares owned of record, and of the class and number of shares owned beneficially, in each case, as of the record date of the meeting; and

(E) as to each person whom the stockholder proposes to nominate for election as a director, (x) all information with respect to such proposed nominee that would be required to be set forth in a stockholder's notice pursuant to this Section 2.1 if such proposed nominee were a proposing person, (y) all information relating to such proposed nominee that is required to be disclosed in a proxy statement or other filings required to be made in connection with the solicitation of proxies for election of directors in a contested election pursuant to Section 14 of the Exchange Act (including such proposed nominee's written consent to being named in the proxy statement as a nominee, if applicable, and to serving as a director if elected), (z) a description of all direct and indirect compensation and other material monetary agreements, arrangements and understandings during the past three years, and any other material relationships, between or among any proposing person, on the one hand, and each proposed nominee, his or her respective affiliates and associates (as such terms are defined in Rule 12b-2 under the Exchange Act), and any other persons or entities acting in concert with such nominee or any of his or her affiliates or associates, on the other hand, including, without limitation, all information that would be required to be disclosed pursuant to Item 404 under Regulation S-K if the proposing persons were the "registrant" for purposes of such rule and the proposed nominee were a director or executive officer of such registrant, and (aa) a completed and signed questionnaire, representation and agreement as provided herein.

(iv) To be timely, a stockholder's notice shall be delivered to the Secretary of the Corporation at the principal executive offices of the Corporation not later than the close of business on the one hundred twentieth (120th) day and not earlier than the close of business on the one hundred fiftieth (150th) day prior to the first anniversary of the preceding year's annual meeting; *provided*, *however*, that in the event that the date of the annual meeting is advanced more than thirty (30) days prior to or delayed by more than thirty (30) days after the anniversary of the preceding year's annual meeting, notice by the stockholder, to be timely, must be so delivered not later than the later of the close of business on the one hundred twentieth (120th) day prior to such annual meeting and the tenth (10th) day following the day on which notice of the date of such meeting is first given to the stockholders, and not earlier than the close of business on the one hundred fiftieth (150th) day prior to such annual meeting.

(c) To be eligible to be a stockholder nominee for election as a director of the Corporation, a person must deliver (in accordance with the time periods prescribed for delivery of notice under this Section 2.1) to the Secretary at the principal executive offices of the Corporation a written questionnaire (in the form prepared by the Corporation, which shall be provided by the Secretary upon request) with respect to the background and qualification of such person and the background of any other person or entity on whose behalf the nomination is being made and a written representation and agreement (in form provided by the Secretary upon written request) that such person (i) is not and will not become a party to (A) any agreement, arrangement or understanding with any person or entity as to how such nominee, if elected as a director of the Corporation, will act or vote on any issue or question (a "Voting Commitment") that has not been disclosed to the Corporation or (B) any Voting Commitment that could limit or interfere with such person's ability to comply, if elected as a director of the Corporation, with such person's fiduciary duties under applicable law, (ii) is not, and does not intend to become a party to, any agreement, arrangement or understanding with any person or entity other than the Corporation with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a director of the Corporation that has not been disclosed therein, and (iii) in such person's individual capacity, would be in compliance with, if elected as a director of the Corporation, and will comply with, applicable publicly disclosed corporate governance, conflict of interest, confidentiality and stock ownership and trading policies and guidelines of the Corporation.

(d) Only such persons who are nominated in accordance with the procedures set forth in this Section 2.1 (including, without limitation, Section 2.1(c)) shall be eligible to serve as directors upon a vote at an annual meeting and only such business shall be conducted at an annual meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section 2.1. In the event that a stockholder who has given notice otherwise in compliance with this Section 2.1 does not appear at the annual meeting to present the nominee or proposed business, as applicable, such nominee shall not be eligible to serve as director upon a vote at such annual meeting or such business shall not be transacted, as the case may be.

(e) For purposes of these Bylaws:

(i) A person shall be deemed to be "acting in concert" with another person for purposes of these Bylaws if such person knowingly acts (whether or not pursuant to an express agreement, arrangement or understanding) in concert with, or towards a common goal relating to the management, governance or control of the Corporation in parallel with, such other person where (A) each person is conscious of the other person's conduct or intent and this awareness is an element in their decision-making processes and (B) at least one additional factor suggests that such persons intend to act in concert or in parallel, which such additional factors may include, without limitation, exchanging information (whether publicly or privately), attending meetings, conducting discussions, or making or soliciting invitations to act in concert or in parallel; *provided*, that a person shall not be deemed to be acting in concert with any other person solely as a result of the solicitation or receipt of revocable proxies from such other person in connection with a public proxy solicitation pursuant to, and in accordance with, the Exchange Act;

(ii) A person that is acting in concert with another person shall also be deemed to be acting in concert with any third party who is also acting in concert with the other person;

(iii) To "beneficially own" or "beneficially owned" shall mean beneficial ownership as defined in Rule 13d-3 under the Exchange Act, *provided*, *however*, that any Proposing Person shall be deemed to beneficially own any shares of any class or series of the Corporation as to which such proposing person has a right to acquire beneficial ownership at any time in the future; and

(iv) A "proposing person" shall mean (A) the stockholder providing the notice of business proposed to be brought before an annual meeting or the stockholder providing notice of the nomination of a director, (B) such beneficial owner, if different, on whose behalf the business proposed to be brought before the annual meeting, or on whose behalf the notice of the nomination of the director, is made, (C) any affiliate or associate of such stockholder or beneficial owner (the terms "affiliate" and "associate" are defined in Rule 12b-2 under the Exchange Act), and (D) any other person with whom such stockholder or beneficial owner (or any of their respective affiliates or associates) is acting in concert."

Section 2.2 of the Bylaws is hereby amended to replace Section 2.2 thereof, and the following Section 2.2 be, and hereby is, is authorized, approved and adopted in all respects and, as amended, said Section 2.2 shall be deemed to read as follows:

"**Section 2.2 Special Meetings**

(a) Special meetings of the stockholders, for any purpose or purposes prescribed in the notice of the meeting, may be called by the chairman, the Board of Directors, the president, the chief executive officer, or the holders of not less than one-tenth of all the shares entitled to vote at the meeting, and shall be held at such place, either within or without the State of Delaware, on such date, and at such time as the Board of Directors shall fix.

(b) If a special meeting is properly called by any person or persons other than the Board of Directors, the request shall be in writing, specifying the general nature of the business proposed to be transacted, and shall be delivered personally or sent by registered mail or by telegraphic or other facsimile transmission to the Chief Executive Officer of the Corporation. No business may be transacted at such special meeting otherwise than specified in such request. The Board of Directors shall determine the time and place of such special meeting, which shall be held not less than thirty-five (35) days and not more than one hundred twenty (120) days after the date of the receipt of the request. Upon determination of the time and place of the meeting, the officer receiving the request shall cause notice to be given to the stockholders entitled to vote, in accordance with the provisions of Section 2.3 of these Bylaws. If the notice is not given within one hundred (100) days after the receipt of the request, the person or persons properly requesting the meeting may set the time and place of the meeting and give the notice. Nothing contained in this paragraph (b) shall be construed as limiting, fixing or affecting the time when a meeting of stockholders called by action of the Board of Directors may be held.

(c) Subject to Sections 3.1 and 3.2 hereof, nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected pursuant to the Corporation's notice of meeting (i) by or at the direction of the Board of Directors or (ii) by any stockholder of the Corporation who is a stockholder of record at the time of giving notice provided for in these Bylaws who shall be entitled to vote at the meeting and who complies with the requirements set forth below. In the event the Corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any such stockholder may nominate a person or persons (as the case may be), for election to such position(s) as specified in the Corporation's notice of meeting, only if (i) such stockholder delivers a notice as described in Section 2.1 of these Bylaws to the Secretary of the Corporation at the principal executive offices of the Corporation not later than the close of business on the later of the one hundred twentieth (120th) day prior to such special meeting and the tenth (10th) day following the day on which notice is first given to the stockholders of the date of the special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting, and not earlier than the close of business on the one hundred fiftieth (150th) day prior to such meeting, and (ii) such stockholder delivers the questionnaire and the written representation and agreement as described in Section 2.1(c) above.

(d) Only such persons who are nominated in accordance with the procedures set forth in this Section 2.2 shall be eligible to serve as directors upon a vote at a special meeting called for such purpose, and only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section 2.2. In the event that a stockholder who has given notice otherwise in compliance with this Section 2.2 does not appear at the special meeting to present the nominee or proposed business, as applicable, such nominee shall not be eligible to serve as director upon a vote at such special meeting or such business shall not be transacted, as the case may be."

Section 2.6 of the Bylaws is hereby amended to replace Section 2.6 thereof, and the following Section 2.6 be, and hereby is, is authorized, approved and adopted in all respects and, as amended, said Section 2.6 shall be deemed to read as follows:

"Section 2.6 Conduct of Business

The chairman of any meeting of stockholders shall determine the order of business and the procedure at the meeting, including such regulation of the manner of voting and the conduct of discussion as seem to him in order. Except as otherwise provided by law, the chairman of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made, or proposed, as the case may be, in accordance with the procedures set forth in these Bylaws and, if any proposed nomination or business is not in compliance with these Bylaws (including, without limitation, Sections 2.1 and 2.2 above), to declare that such proposal or nomination shall not be presented for stockholder action at the meeting and shall be disregarded."

A new Section 2.10 is hereby inserted into the Bylaws and the following Section 2.10 hereby is authorized, approved and adopted in all respects, and said Section 2.10 shall be deemed to read as follows:

"**Section 2.10 Exchange Act**

Notwithstanding the foregoing provisions of Sections 2.1 and 2.2, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to the matters set forth in Sections 2.1 and 2.2; *provided*, *however*, that any references in these Bylaws to the Exchange Act or the rules and regulations promulgated thereunder are not intended to and shall not limit any requirements applicable to nominations or proposals as to any other business to be considered pursuant to this Sections 2.1 or 2.2, and compliance with Sections 2.1 and 2.2 shall be the exclusive means for a stockholder to make nominations or submit other business (other than, as provided in Section 2.1(b)(iv), business other than shareholder proposals brought properly under and in compliance with Rule 14a-8 of the Exchange Act, as may be amended from time to time). Nothing in these Bylaws shall be deemed to affect any rights (A) of stockholders to request inclusion of proposals or nominations in this Corporation's proxy statement pursuant to applicable rules and regulations promulgated under the Exchange Act or (B) of the stockholders to elect directors pursuant to any applicable provisions of the Certificate of Incorporation."

Exhibit 10.1

ACTINIUM PHARMACEUTICALS, INC.

FIRST AMENDMENT TO THE
AMENDED AND RESTATED 2013 STOCK PLAN

WHEREAS, Actinium Pharmaceuticals, Inc. (the "Company") maintains the Actinium Pharmaceuticals, Inc. Amended and Restated 2013 Stock Plan (the "Plan") to provide for certain equity incentive compensation awards to employees, directors and consultants of the Company; and

WHEREAS, the Board of Directors of the Company has determined that it is in the best interests of the Company to amend the Plan to revise the definition of change of control and to provide for accelerated vesting of all awards granted under the Plan (whether granted prior to or after this amendment) in the event of a change of control of the Company.

NOW, THEREFORE, the Company does hereby amend the Plan, effective August 6, 2015, as follows:

1. Section 2(e) of the Plan is hereby amended to read in its entirety as follows:

"**"Change of Control"** means (i) The direct or indirect sale, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the properties or assets of the Company and its subsidiaries, taken as a whole, to any "Person" (as that term is used in Section 13(d)(3) of the Exchange Act) that is not a subsidiary of the Company; (ii) The "Incumbent Directors" (meaning those individuals who, on date the Plan is adopted by the Board (the "Effective Date"), constitute the Board, *provided that* any individual becoming a Director subsequent to the Effective Date whose election or nomination for election to the Board was approved by a vote of at least two-thirds of the Incumbent Directors then on the Board (either by a specific vote or by approval of the proxy statement of the Company in which such person is named as a nominee for Director without objection to such nomination) shall be an Incumbent Director; and *further provided* that no individual initially elected or nominated as a director of the Company as a result of an actual or threatened election contest with respect to Directors or as a result of any other actual or threatened solicitation of proxies by or on behalf of any person other than the Board shall be an Incumbent Director) cease for any reason to constitute at least a majority of the Board; (iii) The date which is 10 business days prior to the consummation of a complete liquidation or dissolution of the Company; (iv) The acquisition by any Person of "Beneficial Ownership" (within the meaning of Rule 13d-3 and Rule 13d-5 under the Exchange Act, except that in calculating the Beneficial Ownership of any particular Person, such Person shall be deemed to have beneficial ownership of all securities that such Person has the right to acquire by conversion or exercise of other securities, whether such right is currently exercisable or is exercisable only after the passage of time) of 50% or more (on a fully diluted basis) of either (A) the then outstanding shares of Common Stock of the Company, taking into account as outstanding for this purpose such Common Stock issuable upon the exercise of options or warrants, the conversion of convertible stock or debt, and the exercise of any similar right to acquire such Common Stock (the "Outstanding Company Common Stock") or (B) the combined voting power of the then outstanding voting securities of the Company entitled to vote generally in the election of directors (the "Outstanding Company Voting Securities"); provided, however, that for purposes of this Plan, the following acquisitions shall not constitute a Change of Control: (I) any acquisition by the Company or any Affiliate, (II) any acquisition by any employee benefit plan sponsored or maintained by the Company or any subsidiary, (III) any acquisition which complies with clauses, (A), (B) and (C) of subsection (v) of this definition or (IV) in respect of an Option or any Restricted Stock 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); or (v) The consummation of a reorganization, merger, consolidation, statutory share exchange or similar form of corporate transaction involving the Company that requires the approval of the Company's shareholders, whether for such transaction or the issuance of securities in the transaction (a "Business Combination"), unless immediately following such Business Combination: (A) more than 50% of the total voting power of (I) the entity resulting from such Business Combination (the "Surviving Company"), or (II) if applicable, the ultimate parent entity that directly or indirectly has beneficial ownership of sufficient voting securities eligible to elect a majority of the members of the board of directors (or the analogous governing body) of the Surviving Company (the "Parent Company"), is represented by the Outstanding Company Voting Securities that were outstanding immediately prior to such Business Combination (or, if applicable, is represented by shares into which the Outstanding Company Voting Securities were converted pursuant to such Business Combination), and such voting power among the holders thereof is in substantially the same proportion as the voting power of the Outstanding Company Voting Securities among the holders thereof immediately prior to the Business Combination; (B) no Person (other than any employee benefit plan sponsored or maintained by the Surviving Company or the Parent Company) is or becomes the Beneficial Owner, directly or indirectly, of 50% or more of the total voting power of the outstanding voting securities eligible to elect members of the board of directors of the Parent Company (or the analogous governing body) (or, if there is no Parent Company, the Surviving Company); and (C) at least a majority of the members of the board of directors (or the analogous governing body) of the Parent Company (or, if there is no Parent Company, the Surviving Company) following the consummation of the Business Combination were Board members at the time of the Board's approval of the execution of the initial agreement providing for such Business Combination."

2. Section 14(c) of the Plan is hereby amended by revising the first sentence thereof to read in its entirety as follows:

"In the event of a Corporate Transaction, each outstanding Option or Stock Purchase Right shall be assumed or an equivalent option or right shall be substituted by such successor corporation or a parent or subsidiary of such successor corporation (the "Successor Corporation"), unless the Successor Corporation does not agree to assume the award or to substitute an equivalent option or right, in which case such Option or Stock Purchase Right shall terminate upon the consummation of the transaction in consideration for a cash payment to the Participant (on the date of the Corporate Transaction), with respect to each such Option, equal to the excess, if any, of the Fair Market Value of the Common Stock subject to such Option over the exercise price of such Option."

3. Section 14 of the Plan is hereby amended by inserting a new Section 14(e) to read in its entirety as follows:

"(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, and (ii) any outstanding Restricted Stock shall become immediately vested and any repurchase option with respect to such Restricted Stock shall immediately lapse, in each case effective immediately prior to the Change of Control."

4. Except as explicitly set forth herein, the Plan will remain in full force and effect.

IN WITNESS WHEREOF, the Company has caused this amendment to the Plan to be executed as of the effective date set forth above by its duly authorized officer.

ACTINIUM PHARMACEUTICALS, INC.

/s/ Kaushik J. Dave

Name: Kaushik J. Dave
Title: Chief Executive Officer

Exhibit 10.2

ACTINIUM PHARMACEUTICALS, INC.

FIRST AMENDMENT TO THE
AMENDED AND RESTATED 2013 EQUITY INCENTIVE PLAN

WHEREAS, Actinium Pharmaceuticals, Inc. (the "Company") maintains the Actinium Pharmaceuticals, Inc. Amended and Restated 2013 Equity Incentive Plan (the "Plan") to provide for equity incentive compensation awards to employees, directors and consultants of the Company; and

WHEREAS, the Board of Directors of the Company has determined that it is in the best interests of the Company to amend the Plan to provide for accelerated vesting of all awards granted under the Plan (whether granted prior to or after this amendment) in the event of a change in control of the Company.

NOW, THEREFORE, the Company does hereby amend the Plan, effective August 6, 2015, as follows:

1. Section 7.4(d)(i) of the Plan is hereby amended to read in its entirety as follows:

   "Unless otherwise provided in this Plan or the applicable Award Agreement, a Participant must be employed by the Company on the last day of a Performance Period to be eligible for payment in respect of a Performance Compensation Award for such Performance Period."

2. Section 12.1 of the Plan is hereby amended to read in its entirety as follows:

   "Notwithstanding any provision of the Plan or any Award Agreement to the contrary, in the event of a Change in Control, each outstanding Award shall become immediately vested and the Performance Goals with respect to each outstanding Performance Share Award and Performance Compensation deemed satisfied at the "target" level, in each case effective immediately prior to the Change of Control."

3. Except as explicitly set forth herein, the Plan will remain in full force and effect.

IN WITNESS WHEREOF, the Company has caused this amendment to the Plan to be executed as of the effective date set forth above by its duly authorized officer.

ACTINIUM PHARMACEUTICALS, INC.

/s/ Kaushik J. Dave
Name: Kaushik J. Dave
Title: Chief Executive Officer

Exhibit 10.3

FORM OF

INDEMNIFICATION AGREEMENT

THIS INDEMNIFICATION AGREEMENT (this "Agreement") is made and entered into this ___ day of _____, 2015, by and between Actinium Pharmaceuticals, Inc., a Delaware corporation (the "*Corporation*"), and _____ ("Indemnitee").

RECITALS

WHEREAS, the Corporation, which is organized under the General Corporation Law of the State of Delaware (as amended, the "DGCL"), wishes to enter into this Agreement to set forth certain rights and obligations of the Indemnitee and the Corporation with respect to the Indemnitee's service as a **[director/officer]** of the Corporation;

WHEREAS, it is essential to the Corporation that it be able to retain and attract as directors and officers the most capable persons available;

WHEREAS, increased corporate litigation has subjected directors and officers to litigation risks and expenses, and the limitations on the availability of directors and officers liability insurance have made it difficult for the Corporation to attract and retain such persons;

WHEREAS, the Board of Directors of the Corporation (the "Board") has determined that the difficulty in attracting and retaining such persons is detrimental to the best interests of the Corporation's stockholders and that the Corporation should contractually obligate itself to indemnify, and to advance expenses on behalf of, such persons to the fullest extent permitted by applicable law so that they will serve the Corporation free from undue concern that they will not be so indemnified;

WHEREAS, Indemnitee performs a valuable service to the Corporation in Indemnitee's capacity as a **[director/officer]** of the Corporation;

WHEREAS, the Corporation's Amended and Restated Bylaws (the "Bylaws") include provisions providing for the indemnification of the directors and officers of the Corporation, including persons serving at the request of the Corporation in such capacities with other corporations or enterprises, as authorized by the DGCL;

WHEREAS, the Corporation's Certificate of Incorporation (the "Charter"), the Bylaws and the DGCL, by their nonexclusive nature, permit contracts between the Corporation and its directors and officers with respect to indemnification of such persons;

WHEREAS, in recognition of Indemnitee's need for (a) substantial protection against personal liability as a condition to Indemnitee's service to the Corporation in Indemnitee's capacity as a **[director/officer]** of the Corporation in addition to Indemnitee's reliance on the Bylaws, which Indemnitee believes is inadequate in the present circumstances, and (b) specific contractual assurance of Indemnitee's rights to full indemnification against risks and expenses (regardless of, among other things, any amendment to or revocation of the Charter and/or the Bylaws, any change in the composition of the Corporation's Board, or a change in control of the Corporation);

WHEREAS, the Corporation intends that this Agreement provide Indemnitee with greater protection than that which is provided by the Bylaws; and

WHEREAS, in order to induce Indemnitee to serve as a **[director/officer]** of the Corporation, the Corporation has determined and agreed to enter into this Agreement with Indemnitee.

NOW, THEREFORE, in consideration of Indemnitee's service as a **[director/officer]** of the Corporation following the date hereof, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Corporation and Indemnitee hereby agree as follows:

1 . Indemnity of Indemnitee. The Corporation agrees to hold harmless and indemnify Indemnitee to the fullest extent authorized or permitted by law, the provisions of the Charter, and the Bylaws, as the same may be amended from time to time (but, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than such law, the Charter, or the Bylaws permitted prior to adoption of such amendment). For purposes of this Agreement, the meaning of the phrase "to the fullest extent authorized or permitted by law" shall include, but not be limited to: (i) to the fullest extent authorized or permitted by the provision of the DGCL that authorizes or contemplates additional indemnification by agreement, or the corresponding provision of any amendment to or replacement of the DGCL or such provision thereof; and (ii) to the fullest extent authorized or permitted by any amendments to or replacements of the DGCL adopted after the date of this Agreement that increase the extent to which a corporation may indemnify its directors and officers.

2. Additional Indemnity. In addition to and not in limitation of the indemnification otherwise provided for herein, and subject only to the exclusions set forth in Section 3 hereof, the Corporation further agrees to hold harmless and indemnify Indemnitee:

(a) against any and all (i) expenses (including attorneys' fees), retainers, court costs, transcript costs, fees of experts, witness fees, travel expenses, duplicating costs, printing and binding costs, telephone charges, postage, delivery service fees and all other disbursements or expenses of the types customarily incurred in connection with prosecuting, defending, preparing to prosecute or defend, investigating, participating, or being or preparing to be a witness in any threatened, pending or completed action, suit, arbitration, alternate dispute resolution mechanism, investigation, inquiry, administrative hearing or any other actual, threatened or completed proceeding, including any appeal thereof or related thereto (each, a "Proceeding"), or responding to, or objecting to, a request to provide discovery in any Proceeding, (ii) damages, judgments, fines and amounts paid in settlement and any other amounts that Indemnitee becomes legally obligated to pay (including any federal, state or local taxes imposed on Indemnitee as a result of receipt of reimbursements or advances of expenses under this Agreement) and (iii) the premium, security for, and other costs relating to any costs bond, supersedes bond, or other appeal bond or its equivalent, whether civil, criminal, arbitrational, administrative or investigative with respect to any Proceeding (items under clauses, (i), (ii) and (iii), collectively, the "Expenses") actually and reasonably incurred by Indemnitee, or on Indemnitee's behalf, because of any claim or claims made against or by him in connection with any Proceeding, whether formal or informal (including an action by or in the right of the Corporation), to which Indemnitee is, was or at any time becomes a party or a witness, or is threatened to be made a party to, a participant in or a witness with respect to, by reason of the fact that Indemnitee is, was or at any time becomes a director or officer of the Corporation, or is or was serving or at any time serves at the request of the Corporation as a director or officer of another corporation, partnership, joint venture, trust or other enterprise ("Corporate Status")**;**

(b) against any and all Expenses actually and reasonably incurred by Indemnitee, or on Indemnitee's behalf, if Indemnitee is, or is threatened to be made, a party to or a participant in any Proceeding by or in the right of the Corporation to procure a judgment in its favor;

(c) against any and all Expenses actually and reasonably incurred by Indemnitee, or on Indemnitee's behalf, if Indemnitee is, by reason of his or her Corporate Status, a witness in any Proceeding to which Indemnitee is not a party and is not threatened to be made a party; and

(d) otherwise to the fullest extent as may be provided to Indemnitee by the Corporation under the nonexclusivity provisions of the DGCL, the Charter and the Bylaws.

3. Limitations on Additional Indemnity. No indemnity pursuant to Section 2 hereof shall be paid by the Corporation:

(a) on account of any claim or Proceeding against Indemnitee for an accounting of profits made from the purchase or sale by Indemnitee of securities of the Corporation pursuant to the provisions of Section 16(b) of the Securities Exchange Act of 1934, as heretofore or hereafter amended (the "Exchange Act"), or similar provisions of any federal, state or local law if the final, nonappealable judgment of a court of competent jurisdiction finds Indemnitee to be liable for disgorgement under Section 16(b) of the Exchange Act;

(b) on account of Indemnitee's conduct that is established by a final, nonappealable judgment of a court of competent jurisdiction as knowingly fraudulent or deliberately dishonest or that constituted willful misconduct;

(c) for which payment is actually made to Indemnitee under (i) a valid and collectible insurance policy, including under any policy of insurance purchased and maintained on Indemnitee's behalf by the Corporation or (ii) under a valid and enforceable indemnity clause, bylaw, or agreement, including, but not limited to, an indemnity clause, bylaw, or agreement relating to another corporation, partnership, joint venture, trust, or other enterprise for which Indemnitee is or was serving as a director or officer at the request of the Corporation; *provided, that* indemnity pursuant to Section 2 hereof shall be paid by the Corporation in respect of any excess beyond payment actually received by Indemnitee under such insurance policy, clause, bylaw or agreement;

(d) if and to the extent indemnification is contrary to law, either as a matter of public policy, or under the provisions of the Federal Securities Act of 1933, as amended, the Securities Exchange Act of 1934, as amended, the DGCL, or any other applicable law; or

(e) in connection with any Proceeding (or part thereof) initiated by Indemnitee, against the Corporation or its directors, officers, employees or other agents, unless (i) such indemnification is expressly required to be made by law, (ii) the Corporation has joined in the Proceeding (or relevant part thereof), (iii) the Board has consented to the initiation of such Proceeding, (iv) such indemnification is provided by the Corporation, in its sole discretion, pursuant to the powers vested in the Corporation under the DGCL, or (v) the Proceeding (or relevant part thereof) is initiated pursuant to Section 12 hereof.

4 . Continuation of Indemnity. All agreements and obligations of the Corporation contained herein shall continue during the period Indemnitee is a director or officer of the Corporation (or is or was serving at the request of the Corporation as a director or officer of another corporation, partnership, joint venture, trust or other enterprise) and shall continue thereafter so long as Indemnitee shall be subject to any possible claim or threatened, pending or completed Proceeding, whether civil, criminal, arbitrational, administrative or investigative, including any appeal thereof or relating thereto, in respect of which Indemnitee is granted rights of indemnification or advancement of Expenses hereunder, in each case, by reason of the fact of the Indemnitee's Corporate Status.

5 . Partial Indemnification. Indemnitee shall be entitled under this Agreement to indemnification by the Corporation for a portion of the Expenses, judgments, fines and amounts paid in settlement and any other amounts that Indemnitee becomes legally obligated to pay in connection with any Proceeding referred to in Section 2 hereof even if not entitled hereunder to indemnification for the total amount thereof, and the Corporation shall indemnify Indemnitee for the portion thereof to which Indemnitee is entitled.

6 . Notification and Defense of Claim. To obtain indemnification under this Agreement, Indemnitee shall submit to the Corporation a written request therefor. As soon as practicable, and in any event, not later than thirty (30) days after Indemnitee becomes aware, by written or other overt communication, of any pending or threatened litigation, claim or assessment, Indemnitee will, if a claim for indemnification in respect thereof is to be made against the Corporation under this Agreement, notify the Corporation of such pending or threatened litigation, claim or assessment; but the omission so to notify the Corporation will not relieve the Corporation from any liability which it may have to Indemnitee otherwise under this Agreement, and any delay in so notifying the Corporation shall not constitute a waiver by Indemnitee of any of Indemnitee's rights under this Agreement. With respect to any such pending or threatened litigation, claim or assessment as to which Indemnitee notifies the Corporation of the commencement thereof:

(a) the Corporation will be entitled to participate therein at its own expense;

(b) except as otherwise provided below, the Corporation may, at its option and jointly with any other indemnifying party similarly notified and electing to assume such defense, assume the defense thereof, with counsel reasonably satisfactory to Indemnitee. After notice from the Corporation to Indemnitee of its election to assume the defense thereof, the Corporation will not be liable to Indemnitee under this Agreement for any legal or other expenses subsequently incurred by Indemnitee in connection with the defense thereof except for reasonable costs of investigation or otherwise as provided below. Indemnitee shall have the right to employ separate counsel in such Proceeding but the fees and expenses of such counsel incurred after notice from the Corporation of its assumption of the defense thereof shall be at the expense of Indemnitee unless (i) the employment of counsel by Indemnitee has been authorized by the Corporation, (ii) Indemnitee shall have reasonably concluded, and so notified the Corporation, that there may be a conflict of interest between the Corporation and Indemnitee in the conduct of the defense of such action, or (iii) the Corporation shall not in fact have employed counsel to assume the defense of Indemnitee in connection with such action; in any of such cases the fees and expenses of Indemnitee's separate counsel shall be at the expense of the Corporation. The Corporation shall not be entitled to assume the defense of any Proceeding brought by or on behalf of the Corporation or as to which Indemnitee shall have made the conclusion provided for in clause (ii) above; and

(c) the Corporation shall not be liable to indemnify Indemnitee under this Agreement for any amounts paid in settlement of any action or claim effected without the Corporation's written consent, which consent shall not be unreasonably withheld, conditioned or delayed. The Corporation shall not enter into any settlement in connection with a Proceeding in any manner which would impose any Expenses, penalties (whether civil or criminal) or limitations on Indemnitee without Indemnitee's written consent, which may be given or withheld in Indemnitee's sole and reasonable discretion.

7. Expenses. The Corporation shall advance, to the extent not prohibited by law, all Expenses actually and reasonably incurred by Indemnitee in connection with any Proceeding promptly following request therefor, but in any event no later than twenty (20) days after the receipt by the Corporation of a written statement or statements requesting such advances (which shall include invoices received by Indemnitee in connection with such Expenses but, in the case of invoices in connection with legal services, any references to legal work performed or to expenditure made that would cause Indemnitee to waive any privilege accorded by applicable law shall not be included with the invoice) from time to time, whether prior to or after the final disposition of any Proceeding. The right to advancement described in this Section 7 is vested. Advances shall be unsecured and interest free. Advances shall be made without regard to Indemnitee's ability to repay the expenses and without regard to Indemnitee's ultimate entitlement to indemnification under the other provisions of this Agreement. The execution and delivery to the Corporation of this Agreement shall constitute an undertaking by Indemnitee to the fullest extent required by law to repay all advances if and to the extent that it is ultimately determined by a court of competent jurisdiction in a final, nonappealable judgment that Indemnitee is not entitled to be indemnified by the Corporation, and Indemnitee shall qualify for advances immediately upon such execution and delivery. The right to advances under this Section 7 shall in all events continue until final disposition of any Proceeding, including any appeal therein.

8. Contribution.

(a) Whether or not the indemnification provided in Section 2 is available, in respect of any Proceeding in which the Corporation is jointly liable with Indemnitee (or would be if joined in such Proceeding), the Corporation shall pay, in the first instance, the entire amount of any judgment or settlement of such Proceeding without requiring Indemnitee to contribute to such payment and the Corporation hereby waives and relinquishes any right of contribution it may have against Indemnitee. The Corporation shall not enter into any settlement of any Proceeding in which the Corporation is jointly liable with Indemnitee (or would be if joined in such Proceeding) unless such settlement provides for a full and final release of all claims asserted against Indemnitee.

(b) Without diminishing or impairing the obligations of the Corporation set forth in Section 8(a), if, for any reason, Indemnitee shall elect or be required to pay all or any portion of any judgment or settlement in any threatened, pending or completed Proceeding in which the Corporation is jointly liable with Indemnitee (or would be if joined in such Proceeding), the Corporation shall contribute to the amount of Expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred and paid or payable by Indemnitee in proportion to the relative benefits received by the Corporation and all officers, directors or employees of the Corporation, other than Indemnitee, who are jointly liable with Indemnitee (or would be if joined in such Proceeding), on the one hand, and Indemnitee, on the other hand, from the transaction from which such Proceeding arose; *provided*, *however*, that the proportion determined on the basis of relative benefit may, to the extent necessary to conform to law, be further adjusted by reference to the relative fault of the Corporation and all officers, directors or employees of the Corporation other than Indemnitee who are jointly liable with Indemnitee (or would be if joined in such Proceeding), on the one hand, and Indemnitee, on the other hand, in connection with the events that resulted in such expenses, judgments, fines or settlement amounts, as well as any other equitable considerations which the law may require to be considered. The relative fault of the Corporation and all officers, directors or employees of the Corporation, other than Indemnitee, who are jointly liable with Indemnitee (or would be if joined in such Proceeding), on the one hand, and Indemnitee, on the other hand, shall be determined by reference to, among other things, the degree to which their actions were motivated by intent to gain personal profit or advantage, the degree to which their liability is primary or secondary and the degree to which their conduct is active or passive.

(c) The Corporation hereby agrees to fully indemnify and hold Indemnitee harmless from any claims of contribution which may be brought by officers, directors or employees of the Corporation, other than Indemnitee, who may be jointly liable with Indemnitee.

(d) To the fullest extent permissible under applicable law, if the indemnification provided for in this Agreement is unavailable to Indemnitee for any reason whatsoever, the Corporation, in lieu of indemnifying Indemnitee, shall contribute to the amount actually and reasonably incurred by Indemnitee, whether for judgments, fines, penalties, excise taxes, amounts paid or to be paid in settlement and/or for Expenses, in connection with any claim relating to an indemnifiable event under this Agreement, in such proportion as is deemed fair and reasonable in light of all of the circumstances of such Proceeding in order to reflect (i) the relative benefits received by the Corporation and Indemnitee as a result of the event(s) and/or transaction(s) giving cause to such Proceeding; and/or (ii) the relative fault of the Corporation (and its directors, officers, employees and agents) and Indemnitee in connection with such event(s) and/or transaction(s).

9. Presumptions and Effect of Certain Proceedings.

(a) In making a determination with respect to Indemnitee's entitlement to indemnification hereunder, the person, persons or entity making such determination shall, to the fullest extent not prohibited by law, presume that Indemnitee is entitled to indemnification under this Agreement if Indemnitee has submitted a request for indemnification in accordance with Section 6 hereof. If the Corporation contests any claim or assertion that Indemnitee is entitled to indemnification hereunder, the Corporation shall, to the fullest extent not prohibited by law, have the burden of proof to overcome such presumption in connection with the making by such person, persons, or entity of any determination with respect to Indemnitee's entitlement to indemnification.

(b) Without limiting the foregoing, if any Proceeding is disposed of on the merits or otherwise (including a disposition without prejudice), without (i) the final disposition being adverse to Indemnitee, (ii) a final adjudication by a court of competent jurisdiction that Indemnitee was liable to the Corporation, (iii) a plea of guilty (iv) a final adjudication by a court of competent jurisdiction that Indemnitee did not act in good faith, and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Corporation, or (v) with respect to any criminal proceeding, a final adjudication by a court of competent jurisdiction that Indemnitee had reasonable cause to believe Indemnitee's conduct was unlawful, Indemnitee shall be considered for the purposes hereof to have been wholly successful with respect thereto.

(c) The termination of any Proceeding or of any claim, issue or matter therein, by judgment, order, settlement or conviction, or upon a plea of nolo contendere or its equivalent, shall not (except as otherwise expressly provided in this Agreement) of itself adversely affect the right of Indemnitee to indemnification or create a presumption that Indemnitee did not act in good faith and in a manner which he or she reasonably believed to be in or not opposed to the best interests of the Corporation or, with respect to any criminal Proceeding, that Indemnitee had reasonable cause to believe that such Indemnitee's conduct was unlawful.

(d) For purposes of any determination of good faith, Indemnitee shall be deemed to have acted in good faith to the extent Indemnitee relied in good faith on (i) the records or books of account of the Corporation, including financial statements , (ii) information supplied to Indemnitee by the officers of the Corporation in the course of their duties, (iii) the advice of legal counsel for the Corporation or its Board or counsel selected by any committee of the Board or (iv) information or records given or reports made to the Corporation by an independent certified public accountant, an appraiser, investment banker or other expert selected with reasonable care by the Corporation or its Board or any committee of the Board.

10. Information Sharing. To the extent that the Corporation receives a request or requests from a governmental third party or other licensing or regulating organization (the "Requesting Agency"), whether formal or informal, to produce documentation or other information concerning an investigation, whether formal or informal, being conducted by the Requesting Agency, and such investigation is reasonably likely to include review of any actions or failures to act by Indemnitee, the Corporation shall promptly give notice to Indemnitee of said request or requests and any subsequent request. In addition, the Corporation shall provide Indemnitee with a copy of any and all information or documentation that the Corporation shall provide to the Requesting Agency.

1 1 . No Imputation. The knowledge and/or actions, or failure to act, of any director, officer, agent or employee of the Corporation or the Corporation itself shall not be imputed to Indemnitee for purposes of determining any rights under this Agreement.

12. Enforcement.

(a) Any right to indemnification or advances granted by this Agreement to Indemnitee shall be enforceable by or on behalf of Indemnitee in any court of competent jurisdiction if (i) the claim for indemnification or advances is denied, in whole or in part, (ii) no disposition of such claim is made within ninety (90) days of request therefor; (iii) advancement of Expenses is not timely made pursuant to Section 7, (iv) payment of indemnification pursuant to this Agreement is not made within ten (10) days after a determination has been made that Indemnitee is entitled to indemnification, or (v) the Corporation or any other person or entity takes or threatens to take any action to declare this Agreement void or unenforceable, or institutes any litigation or other action or proceeding designed to deny, or to recover from, Indemnitee the benefits provided or intended to be provided to Indemnitee hereunder, Indemnitee shall be entitled to an adjudication by the Delaware Court of Chancery of Indemnitee's entitlement to such indemnification or advancement of Expenses, and the Corporation shall not oppose Indemnitee's right to seek any such adjudication in accordance with this Agreement. Indemnitee, in such enforcement action, if successful in whole or in part, shall be entitled to be paid also the Expenses of prosecuting Indemnitee's claim. It shall be a defense to any action for which a claim for indemnification is made under Section 2 hereof (other than an action brought to enforce a claim for advance or reimbursement of Expenses under this Agreement, *provided* that the required undertaking has been tendered to the Corporation) that Indemnitee is not entitled to indemnification because of the limitations set forth in Section 3 hereof. Neither the failure of the Corporation (including the Board, any committee of the Board, or the Corporation's its stockholders, or any subgroup of such directors or stockholders) to have made a determination prior to the commencement of such enforcement action that indemnification of Indemnitee is proper in the circumstances, nor an actual determination by the Corporation (including the Board, any committee of the Board, or the Corporation's stockholders, or any subgroup of such directors or stockholders) that such indemnification is improper shall be a defense to the action or create a presumption that Indemnitee is not entitled to indemnification under this Agreement or otherwise.

(b) To the fullest extend not prohibited by law, the Corporation shall be precluded from asserting in any judicial proceeding commenced pursuant to this Section 12 that the procedures and presumptions of this Agreement are not valid, binding and enforceable and shall stipulate in any such court that the Corporation is bound by all the provisions of this Agreement. If a determination shall have been made pursuant to this Agreement that Indemnitee is entitled to indemnification, the Corporation shall be bound by such determination in any Proceeding commenced pursuant to this Section 12, absent (i) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's statements not materially misleading, in connection with the request for indemnification, or (ii) a prohibition of such indemnification under applicable law.

1 3 . Subrogation. In the event of payment under this Agreement, the Corporation shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee, who shall execute all documents required and shall do all acts that may be necessary to secure such rights and to enable the Corporation effectively to bring suit to enforce such rights.

14. NonExclusivity of Rights. The rights conferred on Indemnitee by this Agreement shall not be exclusive of any other right which Indemnitee may have or hereafter acquire under any statute, provision of the Charter or Bylaws, agreement, vote of stockholders or directors, or otherwise, both as to action in Indemnitee's official capacity and as to action in another capacity while holding office. To the extent that a change in applicable law, whether by statute or judicial decision, permits greater indemnification or advancement of Expenses than would be afforded currently under the Charter or Bylaws and this Agreement, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits so afforded by such change, subject to the restrictions expressly set forth herein or therein. Except as expressly set forth herein, no right or remedy herein conferred is intended to be exclusive of any other right or remedy, and every other right and remedy shall be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. Except as expressly set forth herein, the assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other right or remedy.

1 5 . Insurance. To the extent that the Corporation maintains an insurance policy or policies providing liability insurance for directors, trustees, general partners, managing members, officers, employees, agents or fiduciaries of the Corporation, Indemnitee shall be covered by such policy or policies (including with respect to prior service) to the same extent as the most favorablyinsured persons under such policy or policies in a comparable position.

16. Enforcement; Survival of Rights.

(a) The Corporation expressly confirms and agrees that the Corporation has entered into this Agreement and assumed the obligations imposed on it hereby in order to induce Indemnitee to serve as a director of the Corporation, and the Corporation acknowledges that Indemnitee is relying upon this Agreement in serving the Corporation in such capacity.

(b) The rights conferred on Indemnitee by this Agreement shall continue after Indemnitee has ceased to be a director or officer of the Corporation or to serve at the request of the Corporation as a director or officer agent of another corporation, partnership, joint venture, trust or other enterprise, and shall inure to the benefit of Indemnitee's heirs, executors and administrators.

(c) The Corporation shall require any successor (whether direct or indirect, by purchase, merger, consolidation or otherwise) to all or substantially all of the business or assets of the Corporation, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Corporation would be required to perform if no such succession had taken place.

(d) The Corporation and Indemnitee agree herein that a monetary remedy for breach of this Agreement, at some later date, may be inadequate, impracticable and difficult of proof, and further agree that such breach may cause Indemnitee and the Corporation irreparable harm. Accordingly, the parties hereto agree that each of the Corporation and the Indemnitee may enforce this Agreement by seeking injunctive relief and/or specific performance hereof, without any necessity of showing actual damage or irreparable harm and that by seeking injunctive relief and/or specific performance, they shall not be precluded from seeking or obtaining any other relief to which they may be entitled. The Corporation and Indemnitee further agree that they shall be entitled to such specific performance and injunctive relief, including temporary restraining orders, preliminary injunctions and permanent injunctions, without the necessity of posting bonds or other undertaking in connection therewith. The Corporation and Indemnitee acknowledge that in the absence of a waiver, a bond or undertaking may be required by the Delaware Court of Chancery, and they hereby waive any such requirement of such a bond or undertaking.

1 7 . No Conflicts. To the extent that any provision of this Agreement conflicts with the Charter, the Bylaws, or applicable law, the Charter, the Bylaws, or such applicable law (as applicable) shall govern.

18. Separability. Each of the provisions of this Agreement is a separate and distinct agreement and independent of the others, so that if any provision hereof shall be held to be invalid, illegal or unenforceable for any reason, (i) such invalidity, illegality or unenforceability shall not affect the validity, legality or enforceability of the remaining provisions of this Agreement (including without limitation, each portion of any Section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) and such other provisions shall remain enforceable to the fullest extent permitted by law; (ii) such provision or provisions shall be deemed reformed to the extent necessary to conform to applicable law and to give the maximum effect to the intent of the parties hereto; and (iii) to the fullest extent possible, the provisions of this Agreement (including, without limitation, each portion of any section of this Agreement containing any such provision held to be invalid, illegal or unenforceable, that is not itself invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested thereby. Furthermore, if this Agreement shall be invalidated in its entirety on any ground, then the Corporation shall nevertheless indemnify Indemnitee to the fullest extent provided by the Charter (if applicable), the Bylaws, the DGCL or any other applicable law.

1 9 . Governing Law. This Agreement shall be governed by, and construed and enforced in accordance with, the laws of the State of Delaware, without regard to its principles of conflicts of laws. The Corporation and Indemnitee hereby irrevocably and unconditionally (i) agree that any action or proceeding arising out of or in connection with this Agreement may be brought in the Delaware Court of Chancery, (ii) consent to submit to the jurisdiction of the Delaware Court of Chancery for purposes of any action or proceeding arising out of or in connection with this Agreement, (iii) waive any objection to the laying of venue of any such action or proceeding in the Delaware Court of Chancery, and (iv) waive, and agree not to plead or to make, any claim that any such action or proceeding brought in the Delaware Court of Chancery has been brought in an improper or inconvenient forum.

20. Amendment and Termination. No amendment, modification, termination or cancellation of this Agreement shall be effective unless in writing signed by both parties hereto.

21. Identical Counterparts. This Agreement may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original but all of which together shall constitute but one and the same Agreement. Only one such counterpart need be produced to evidence the existence of this Agreement.

22. Notices. All notices, requests, demands and other communications hereunder shall be in writing and shall be deemed to have been duly given (i) upon delivery if delivered by hand to the party to whom such communication was directed or (ii) upon the third business day after the date on which such communication was mailed if mailed by certified or registered mail with postage prepaid:

(a) If to Indemnitee, at the address indicated on the signature page hereof.

(b) If to the Corporation, to:

Actinium Pharmaceuticals, Inc.
757 Third Avenue, 21st Floor
New York, NY 10017
Attention: Chief Executive Officer

or to such other address as may have been furnished to Indemnitee by the Corporation.

22. Headings. The headings of the sections of this Agreement are inserted for convenience only and shall not be deemed to constitute part of this Agreement or to affect the construction hereof.

[*Remainder of Page Intentionally Left Blank*]

IN WITNESS WHEREOF, the parties hereto have executed this Indemnification Agreement on and as of the day and year first above written.

COMPANY:

ACTINIUM PHARMACEUTICALS, INC.

By: _____
Name: _____
Title: _____

INDEMNITEE:

_____
[NAME]

Address for notices:

_____
_____
_____

Exhibit 10.4

Effective Date: August 6, 2015

Sandesh Seth
40 East 89th Street, Apt. 7A
New York, NY 10128

Dear Mr. Seth:

On behalf of Actinium Pharmaceuticals, Inc. (the "Company"), I am pleased to provide you with this contract related to your consulting position of Executive Chairman of the Company. This Agreement amends your August 11, 2014 Consulting Agreement.

1. Position. The terms of your consulting position with the Company are as set forth below:

(a) You shall serve as Executive Chairman of the Company with such responsibilities, duties and authority as are assigned to you by the Board of Directors (the "Board"), or its designee. As Executive Chairman of our Company, you act as an officer and consultant and, as such, perform your duties subject in all instances to the oversight of our Board and the power of our Board to approve all applicable corporation actions (which powers shall not be vested in the office of Executive Chairman). The Executive Chairman is not an "executive officer" (as defined in SEC Rule 3b-7) of our company as the role of the Executive Chairman by design is not an officer who performs a policy making function for our company. Rather, the Executive Chairman serves as a conduit between our Board and our executive management team and is available to act as an advisor and consultant to our executive management team, who are responsible for development and implementation of our corporate policies under the supervision of our Board. Subject to such other roles, duties and projects as may (consistent with the terms and provisions of our Amended and Restated Bylaws, as amended, and the resolutions of our Board that formed the office of Executive Chairman) be assigned by our Board to the Executive Chairman, the primary responsibilities of the Executive Chairman are as follows:

(i) Chair annual and special Board meetings and annual stockholder meetings and, subject to availability, attend meetings of the committees of the Board;

(ii) Provide overall Board leadership and establish guiding principles for the Board;

(iii) Manage the affairs of the Board and facilitate Board action in such a way that strategic and policy decisions are fully discussed, debated and decided by the Board;

(iv) In cooperation with the President, and Chief Executive Officer, and other Company officers as appropriate or selected by the Executive Chairman/Board, ensure that our strategic orientation is defined and communicated to the Board for its approval and that all material issues are dealt with by the Board in a timely manner;

(v) Ensure that the Board has efficient communication channels regarding all material issues concerning the business and see to it that directors are informed about these issues;

(vi) Act as a representative of the Board and consult with Board members outside the regularly scheduled meetings of the Board and of Board committees;

(vii) Meet and confer as often as required with our President, and Chief Executive Officer and executive management to ensure that there is efficient communication between the Executive Chairman, the President, and Chief Executive Officer, other executive management and Board members;

(viii) Offer advice and consultation to the President, and Chief Executive Officer and executive management on the overall management of the business and affairs of our company as well as specific matters upon the request of the President, and Chief Executive Officer and or the Board;

(ix) In consultation and partnership with the President, and Chief Executive Officer, the Executive Chairman may act as our representative with business partners of our company; and

(x) At the request of the Board or the President, and Chief Executive Officer the Executive Chairman may be placed in charge of special corporate strategic initiatives or projects.

(b) You agree to devote your best efforts to advance the interests of the Company and to discharge adequately your duties hereunder. Nothing herein shall prohibit you as the Executive Chairman from accepting or continuing in any employment, consultancy, management or board position with any other for-profit or non-profit entity, being an investor in another company such as a member of a limited liability company, a general or limited partner of a limited partnership or a stockholder of a corporation. You shall report directly to the Board.

2. Start Date. You commenced service in this position with the Company on August 11, 2014 ("Start Date").

3. Proof of Right to Work. For purposes of federal immigration law, you, if applicable, will be required to provide to the Company documentary evidence of your identity and eligibility for employment in the United States.

4. Compensation.

(a) Consulting Fee. You will be paid an annual consulting fee of three hundred fifty thousand dollars ($350,000.00), which will be paid in accordance with the Company's regular payroll practices for consultants. Upon the six month anniversary of your Start Date, the Board will review your consulting fee with the help of an independent compensation consultant to adjust your consulting fee is to be competitively aligned to a range between the 25th (twenty-fifth) and 75th (seventy-fifth) percentile of the relevant market data of Chairman positions of similarly situated publicly traded Biotech companies. The Board shall review the amount of your consulting fee and performance bonus, and shall determine the appropriate adjustments to each component of your compensation within 60 days of the start of each calendar year. During the term of this Agreement, your annual consulting fee shall be maintained at least at the same amount as the total compensation (including annual salary and all other payments of any kind paid to the CEO) of the Chief Executive Officer (Principal Executive Officer) (the "CEO") of the Company. For example, if the CEO's annual salary is increased by $30,000 per year, the Consultant's annual consulting fee shall also be increased by $30,000 per year. For the avoidance of doubt, the Board at its discretion may also pay the consultant an annual consulting fee in excess of the CEO's total compensation.

(b) Performance Cash Bonus. You shall be entitled to participate in a Company bonus program, which shall be established by the Board pursuant to which the Board shall award bonuses to you, based upon the achievement of written individual and corporate objectives such as the Board shall determine. Upon the attainment of such performance objectives, in addition to your consulting fee, you shall be entitled to a cash bonus in an amount to be determined by the Board with a target of forty percent (40%) of your consulting fee. Within thirty (30) days after the Start Date, the Board shall establish written individual and corporate performance objectives for the balance of 2014 and the amount of the performance pro-rata bonus payable upon the attainment of each objective. At least thirty (30) days before each subsequent calendar year, the Board shall establish written individual and corporate performance objectives for such calendar year and the amount of the performance bonus payable upon the attainment of such objectives. Within sixty (60) days after the end of each calendar year, the Board shall determine the amount of any performance bonus payable hereunder. Any such performance bonus shall be due and payable within ninety (90) days after the end of the calendar year to which it relates. During the term of this Agreement, your performance cash bonus shall be at least at the same amount as the performance cash bonus paid to CEO of the Company. For example, if the CEO's receives a performance cash bonus of $140,000, the Consultant shall also receive a performance cash bonus of $140,000. For the avoidance of doubt, the Board at its discretion may also pay the Consultant a performance cash bonus greater than the performance cash bonus paid to the CEO.

(c) Stock Option Grant. The Board has agreed to grant to you an option to purchase common shares of the Company (the "Grant"). The Grant will consist of an option grant to purchase 280,000 (two hundred and eighty thousand common shares of the Company. The Grant shall be subject to the vesting schedule below.

(i) Stock Options. Such options will have an exercise price equal to $6.23 (six dollars and twenty-three cents), the closing price of the Company's common stock on the date of Board approval of the grant, September 23, 2014, which is equal to fair market value as determined by the Board on the date of the grant (the "Grant date"). During the term of this Agreement, you shall also be awarded stock option and/or restricted stock grants at least at the same amount as such stock option and/or restricted stock that is granted to the CEO. For example, if the CEO's receives a stock option grant that is exercisable for 100,000 shares, the Consultant shall also receive a stock option grant that is exercisable for 100,000 shares. For the avoidance of doubt, the Board at its discretion may also grant the Consultant options and/or restricted stock that exceed the number of options and /or restricted stock granted to the CEO.

(i i) Vesting Schedule of the Grant. Two percent (2%) of the Grant shall vest each month from the grant Date until fully vested in accordance with the procisions of the Company's Amended and Restated 2013 Stock Plan, subject to your continuing service with the Company. The options will be incentive stock options or stock to the maximum extent allowed by the tax code and will be subject to the terms of the Company's Amended and Restated 2013 Stock Plan and corresponding Stock Option Agreement between you and the Company.

5. Benefits.

(a) Benefit Plan — Health Insurance, Retirement and Stock Option Plan. The Company will provide you with the opportunity to participate in the standard benefits plans. The Company reserves the right to cancel and/or change the benefits plans it offers to its participants at any time, subject to applicable law.

(b) Other Benefits. The Company will provide you with standard business reimbursements (including mileage, supplies, long distance calls), subject to Company policies and procedures and with appropriate receipts. In addition, you will receive any other statutory benefits required by law.

(c) Reimbursement of Expenses. You shall be reimbursed for all normal items of travel and entertainment and miscellaneous expenses reasonably incurred by you on behalf of the Company provided such expenses are documented and submitted in accordance with the reimbursement policies in effect from time to time.

6. Confidential Information and Invention Assignment Agreement. You have already executed the Company's Confidential Information and Invention Assignment Agreement, (the "Confidentiality Agreement"), which remains in effect.

7. Term and Severance. The term of your consulting arrangement shall be a period of five (5) years from the Start Date. If your consulting arrangement is terminated because of your death or Disability, the Company's only obligation to you shall be to pay your earned, but unpaid, consulting fee (as of the date of termination) and provide you, if eligible, with the option to elect health coverage under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA"); provided that upon termination of your consulting arrangement due to death, your estate also shall be entitled to receive a single lump sum payment equal to three (3) months of your consulting fee, payable within 30 days of your death. Upon termination of your employment for Cause (as defined below) you shall be paid any accrued and unpaid base salary and benefits through the date of termination and shall have no further rights to any compensation or any other benefits under the Agreement or otherwise.

(a) Termination of Service Other Than for Cause or Resignation for Good Reason (Not in Connection with a Change in Control). If the Company terminates your consulting arrangement other than for Cause or if you resign for Good Reason, in any case in circumstances other than those described in Section 7(b), you shall be entitled to the following:

(i) Subject to Section 8 hereof, a single lump sum payment equal to twenty-four (24) months of your compensation (at the rate in effect as of the date of termination), payable in accordance with the Company's regular payroll practices for consultants in effect at the date of termination, on the first payroll date following the date the Release (as defined in Section 8 hereof) becomes effective and irrevocable in accordance with its terms.

(ii) Subject to Section 8 hereof, continued health benefits for the 24-month period beginning on the date of termination, with such period to run concurrently with any period for which you are eligible to elect health coverage under COBRA. Notwithstanding the foregoing, you shall be required to pay any and all service provider premiums associated with continued health benefits and, if you begin providing services to another service recipient and become covered by such service recipient's health benefits plan or program, the continued health benefits and cash payments provided hereunder shall cease.

(iii) All outstanding equity awards granted to you under the Company's equity compensation plans shall become immediately vested and exercisable (as applicable) as of the date of such termination and the performance goals with respect to such outstanding performance awards, if any, will deemed satisfied at "target".

(b) Change in Control. If the Company terminates your consulting arrangement other than for Cause or if you resign for Good Reason, in any case during the 12-month period beginning on the date of a Change in Control (as defined in the 2013 Equity Incentive Plan, as amended), you shall be entitled to the following:

(i) Subject to Section 8 hereof, a single lump sum payment equal to thirty (30) months of your compensation (at the rate in effect as of the date of termination), payable in accordance with the Company's regular payroll practices for consultants in effect at the date of termination, on the first payroll date following the date the Release (as defined in Section 8 hereof) becomes effective and irrevocable in accordance with its terms.

(ii) Subject to Section 8 hereof, continued health benefits for the 30-month period beginning on the date of termination, with such period to run concurrently with any period for which you are eligible to elect health coverage under COBRA. Notwithstanding the foregoing, you shall be required to pay any and all service provider premiums associated with continued health benefits and, if you begin providing services to another service recipient and become covered by such service recipient's health benefits plan or program, the continued health benefits and cash payments provided hereunder shall cease.

(iii) All outstanding equity awards granted to you under the Company's equity compensation plans shall become immediately vested and exercisable (as applicable) as of the date of such termination and the performance goals with respect to such outstanding performance awards, if any, will deemed satisfied at "target".

(c) "Cause" means: (i) your gross negligence and/or willful misconduct (as such terms are generally understood and applied to the performance of an executive) in the performance of his material duties with respect to the Company as determined, in each case, by a court of competent jurisdiction not subject to further appeal or a final arbitration award, as provided hereunder; (ii) the conviction by the Executive of a crime constituting a felony, or (iii) you shall have committed any material act of malfeasance, dishonesty or breach of fiduciary duty against the Company, for which you shall have a thirty (30) day cure period following notice thereof from the Company (except for a conviction pursuant to subsection (ii), for which there shall be no cure period).

(d) "Good Reason" means: (i) the Company's material breach any of its obligations under this Agreement; (ii) a material reduction of your consulting fee or target bonus opportunity; (iii) a material change to the title, scope of your work or consulting duties; (iv) an abandonment of, or fundamental change in, the primary business or primary products of the Company; (v) the termination, elimination of your duties as Executive Chairman or Chairman of the Board of the Company, other than for Cause or voluntary resignation; (vi) the appointment of a new Executive Chairman or Chairman of the Board, or person performing similar duties; or (vi) the Company's regular requirement that you perform services in or relocate to a location that is more than fifty (50) miles from New York City. A termination will not be deemed to be for Good Reason unless the Company does not cure within 30 days after receipt of written notice from you specifying the Good Reason and referring to your right to resign for Good Reason. Any resignation for Good Reason will be effective immediately upon your giving notice of your resignation for Good Reason to the Company, conditioned upon your having provided proper notice of Good Reason and time to cure in accordance with this provision.

(e) "Disability" means that (i) you have been unable, for a period of 180 consecutive business days, to perform your duties under this Agreement, as a result of physical or mental illness or injury, and (ii) a physician selected or approved by the Company has determined that it is either not possible to determine when such inability to perform will cease or that it appears probable that such inability will be permanent during the remainder of your life.

(f) Mitigation: In the event that you are entitled to severance pursuant to this Agreement, you have no duty to mitigate and your severance will not be reduced for any reason.

8. Release. Notwithstanding anything contained herein to the contrary, the Company shall not be obligated to provide any severance payment or benefit under Sections 7(a)(i), 7(a)(ii), 7(b)(i) or 7(b)(ii) hereof unless: (a) you or your legal representative first executes within 50 calendar days after the date of presentment a release of claims agreement in the form as to be provided by the Company (the "Release") and substantially similar to the form of Release attached hereto as Exhibit A, (b) you do not revoke the Release, and (c) the Release becomes effective and irrevocable in accordance with its terms. The Company shall provide the Release to you for your review within ten (10) days of the date of termination.

9. Non-Solicitation. You agree that during the term of your consulting arrangement with the Company, and for a period of 12 months following the cessation of consultancy with the Company for any reason or no reason, you shall not directly or indirectly solicit, induce, recruit or encourage any of the Company's employees or consultants to terminate their relationship with the Company, or attempt any of the foregoing, either for yourself or any other person or entity. For a period of 12 months following cessation of your consulting arrangement with the Company for any reason or no reason, you shall not attempt to negatively influence any of the Company's clients or customers from purchasing Company products or services or to solicit or influence or attempt to influence any client, customer or other person either directly or indirectly, to direct his or its purchase of products and/or services to any person, firm, corporation, institution or other entity in competition with the business of the Company.

10. Arbitration. Any dispute or claim arising out of or in connection with your employment with the Company (except with regard to enforcement of the Confidentiality Agreement) will be finally settled by arbitration in New York, New York in accordance with the Commercial Arbitration Rules of the American Arbitration Association by one arbitrator appointed in accordance with said rules. Judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. The parties agree that this Agreement evidences a transaction involving interstate commerce and that the operation, interpretation and enforcement of this arbitration provision, the procedures to be used in conducting an arbitration pursuant to this arbitration provision, and the confirmation of any award issued to either party by reason of such arbitration, is governed exclusively by the Federal Arbitration Act, 9 U.S.C. § 21 et seq. Notwithstanding the foregoing, the parties may apply to any court of competent jurisdiction for preliminary or interim equitable relief, or to compel arbitration in accordance with this paragraph, without breach of this arbitration provision. The Company shall pay all fees and expenses for the arbitration itself; provided that the cost of the arbitrator will be equally divided between the parties. The Company will pay your legal fees, provided that, if you substantially do not prevail, the Company shall be reimbursed for your reasonable legal fees.

11. Indemnification. On the date hereof, you have entered into an Indemnification Agreement with the Company which is attached hereto as Exhibit B.

12. Section 280G. In the event it shall be determined that any payment or distribution by the Company to or for your benefit (whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise) (the "Total Payments"), is or will be subject to the excise tax (the "Excise Tax") imposed by Section 4999 of the Internal Revenue Code of 1986, as amended (the "Code"), then the Total Payments shall be reduced to the maximum amount that could be paid to you without giving rise to the Excise Tax (the "Safe Harbor Cap"), if the net after-tax benefit to you after reducing your Total Payments to the Safe Harbor Cap is greater than the net after-tax (including the Excise Tax) benefit to you without such reduction. The reduction of the amounts payable hereunder, if applicable, shall be made by reducing such payment that trigger the Excise Tax in the following order: (i) reduction of cash payments, (ii) cancellation of accelerated vesting of performance-based equity awards (based on the reverse order of the date of grant), (iii) cancellation of accelerated vesting of other equity awards (based on the reverse order of the date of grant), and (iv) reduction of any other payments due to you (with benefits or payments in any group having different payment terms being reduced on a pro-rata basis). All mathematical determinations, and all determinations as to whether any of the Total Payments are "parachute payments" (within the meaning of Section 280G of the Code), that are required to be made under this paragraph, including determinations as to whether the Total Payments to you shall be reduced to the Safe Harbor Cap and the assumptions to be utilized in arriving at such determinations, shall be made at the Company's expense by the Company's then current independent auditors, or such other nationally recognized accounting firm selected by the Committee prior to the relevant change in control transaction.

13. Section 409A.

(c) In General. It is the Company's intent that this Agreement be exempt from the application of, or otherwise comply with, the requirements of Section 409A of the Code ("Section 409A"). Specifically, any taxable benefits or payments provided under this Agreement are intended to be separate payments that qualify for the "short-term deferral" exception to Section 409A to the maximum extent possible, and to the extent they do not so qualify, are intended to qualify for the involuntary separation pay exceptions to Section 409A, to the maximum extent possible. If neither of these exceptions applies, and if you are a "specified employee" within the meaning of Section 409A, then notwithstanding any provision in this Agreement to the contrary and to the extent required to comply with Section 409A, all amounts that would otherwise be paid or provided to you during the first six (6) months following your date of termination shall instead be accumulated through and paid or provided (without interest) on the first business day following the six-month anniversary of the date of termination. If the period during which the Release must become effective and irrevocable in accordance with its terms spans two calendar years, then, to the extent required to comply with Section 409A, any payment to be made under this Agreement will commence on the first payroll date that occurs in the second calendar year and after the Release has become effective and irrevocable in accordance with its terms. Further, to the extent required to comply with Section 409A: (i) the amount of any expense reimbursement to which you may be entitled hereunder during a calendar year will not affect the amount of reimbursements to be provided in any other calendar year; (ii) your right to receive reimbursement of an eligible expense hereunder is not subject to liquidation or exchange for another benefit; and (iii) provided that the requisite documentation is submitted, the Company will reimburse your eligible expenses on or before the last day of the calendar year following the calendar year in which the expense was incurred.

(d) Separation from Service. A termination of service shall not be deemed to have occurred for purposes of any provision of this Agreement providing for the payment of any amounts or benefits subject to Section 409A upon or following a termination of service unless such termination is also a "separation from service" within the meaning of Section 409A and you are no longer providing services (at a level that would preclude the occurrence of a "separation from service" within the meaning of Section 409A) to the Company or its affiliates as an employee or consultant, and for purposes of any such provision of this Plan, references to a "termination," "termination of employment" or like terms shall mean "separation from service" within the meaning of Section 409A.

1 4 . Attorneys' Fees. Should either party hereto, or any heir, personal representative, successor or assign of either party hereto, resort to legal proceedings in connection with this Agreement or Consultant's consulting relationship with the Company, the party or parties prevailing in such legal proceedings shall be entitled, in addition to such other relief as may be granted, to recover its or their reasonable attorneys' fees and costs in such legal proceedings from the non prevailing party or parties.

1 5 . Assistance in Litigation. Consultant shall, during and after termination of employment, upon reasonable notice, furnish such information and proper assistance to the Company as may reasonably be required by the Company in connection with any litigation in which it or any of its subsidiaries or affiliates is, or may become a party; provided, however, that such assistance following termination shall be furnished at mutually agreeable times and for mutually agreeable compensation.

16. Miscellaneous. This Agreement, together with the Confidentiality Agreement, and Indemnification Agreement sets forth the terms of your employment with the Company and supersedes any prior representations or agreements, whether written or oral. This Agreement may not be modified or amended except by a written agreement, signed by the Company and by you. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will be lessened or reduced to the extent possible or will be severed and will not affect any other provision and this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision had never been contained herein. This Agreement will be governed by New York law without reference to rules of conflicts of law. All notices, requests, demands and other communications called for hereunder shall be in writing and shall be deemed given (i) on the date of delivery if delivered personally, (ii) one (1) day after being sent by a well established commercial overnight service, (iii) three (3) days after being mailed by registered or certified mail, return receipt requested, prepaid and addressed to the parties or their successors at the following addresses, or at such other addresses as the parties may later designate in writing, (iv) upon confirmation of facsimile transfer, if sent by facsimile or (v) upon confirmation of delivery when directed to the electronic mail address set forth below, if sent by electronic mail:

If to the Company:	757 Third Avenue, 21st Floor New York, NY 10017
If to you:	40 East 89th Street, Apt. 7A New York, NY 10128

17. Withholding of Taxes. The Company may withhold from any amounts payable under this Agreement all federal, state, city or other taxes as the Company may be required to withhold pursuant to any law or government regulation or ruling.

To indicate your acceptance of the Company's amendment and this Agreement, please sign and date this letter in the space provided below.

Very truly yours,

ACTINIUM PHARMACEUTICALS, INC.

By: /s/ David Nicholson
David Nicholson
Chairman of Compensation Committee
Board Member

Dated: August 6, 2015

ACCEPTED AND AGREED:

SANDESH SETH

/s/ Sandesh Seth

Dated: August 6, 2015

EXHIBIT A

RELEASE OF CLAIMS

FOR AND IN CONSIDERATION OF the payments and benefits (the "**Separation Benefits**") to be provided to me in connection with the separation of my relationship with the Company, in accordance with the Agreement between Actinium Pharmaceuticals, Inc. (the "**Company**") and me dated as August 6, 2015 (the "**Agreement**"), which Separation Benefits are conditioned on my signing this Release of Claims ("**Release**") and which I will forfeit unless I execute and do not revoke this Release of Claims, I, on my own behalf and on behalf of my heirs and estate, voluntarily, knowingly and willingly release and forever discharge the Company, its subsidiaries, affiliates, parents, and stockholders, together with each of those entities' respective officers, directors, stockholders, employees, agents, fiduciaries and administrators (collectively, the "**Releasees**") from any and all claims and rights of any nature whatsoever which I now have against them up to the date I execute this Release, whether known or unknown, suspected or unsuspected. This Release includes, but is not limited to, any rights or claims relating in any way to my employment or consulting relationship with the Company or any of the other Releasees or the termination thereof, any contract claims (express or implied, written or oral), including, but not limited to, the Agreement, or any rights or claims under any statute, including, without limitation, the Americans with Disabilities Act, the Age Discrimination in Employment Act, the Older Workers' Benefit Protection Act, the Rehabilitation Act of 1973 (including Section 504 thereof), Title VII of the 1964 Civil Rights Act, the Civil Rights Act of 1866 (42 U.S.C. § 1981), the Civil Rights Act of 1991, the Equal Pay Act, the National Labor Relations Act, the Worker Adjustment and Retraining Notification Act, the Family Medical Leave Act, the Lilly Ledbetter Fair Pay Act, the Genetic Information Non-Discrimination Act, the New York State Human Rights Law, the New York City Human Rights Law, and the Employee Retirement Income Security Act of 1974, all as amended, and any other federal, state or local law. This Release specifically includes, but is not limited to, any claims based upon the right to the payment of wages, incentive and performance compensation, bonuses, equity grants, vacation, pension benefits, 401(k) Plan benefits, stock benefits or any other employee benefits, or any other rights arising under federal, state or local laws prohibiting discrimination and/or harassment on the basis of race, color, age, religion, sexual orientation, religious creed, sex, national origin, ancestry, alienage, citizenship, nationality, mental or physical disability, denial of family and medical care leave, medical condition (including cancer and genetic characteristics), marital status, military status, gender identity, harassment or any other basis prohibited by law.

As a condition of the Company entering into this Release, I further represent that I have not filed against the Company or any of the other Releasees, any complaints, claims or lawsuits with any arbitral tribunal, administrative agency, or court prior to the date hereof, and that I have not transferred to any other person any such complaints, claims or lawsuits. I understand that by signing this Release, I waive my right to any monetary recovery in connection with a local, state or federal governmental agency proceeding and I waive my right to file a claim seeking monetary damages in any arbitral tribunal, administrative agency, or court. This Release does not: (i) prohibit or restrict me from communicating, providing relevant information to or otherwise cooperating with the U.S. Equal Employment Opportunity Commission or any other governmental authority with responsibility for the administration of fair employment practices laws regarding a possible violation of such laws or responding to any inquiry from such authority, including an inquiry about the existence of this Release or its underlying facts, or (ii) require me to notify the Company of such communications or inquiry. Furthermore, notwithstanding the foregoing, this Release does not include and will not preclude: (a) rights or claims to vested benefits under any applicable retirement and/or pension plans; (b) rights under the Consolidated Omnibus Budget Reconciliation Act of 1985 ("**COBRA**"); (c) claims for unemployment compensation; (d) rights to defense and indemnification, if any, from the Company for actions or inactions taken by me in the course and scope of my employment with the Company and its parents, subsidiaries and/or affiliates; (e) any rights I may have to obtain contribution as permitted by law in the event of entry of judgment against the Company as a result of any act or failure to act for which I and the Company are held jointly liable; (f) the right to any equity awards that vested prior to or because of the termination of my employment, and/or (g) any actions to enforce the Agreement.

Nothing herein shall be construed to limit my right to (1) respond accurately and fully to any question, inquiry or request for information when required by legal process; or (2) disclose information to regulatory bodies. I understand that I am not required to contact the Company before engaging in such communications.

I acknowledge that, in signing this Release, I have not relied on any promises or representations, express or implied, other than those that are set forth expressly herein or in the Agreement and that are intended to survive separation from employment, in accordance with the terms of the Agreement.

I further acknowledge that:

1. I first received this Release on the date of the Agreement to which it is attached as Exhibit A;

2. I understand that, in order for this Release to be effective, I may not sign it prior to the date of my separation of employment with the Company but that if I wish to receive the Separation Benefits, I must sign and return this Release within 45 days of its presentation to me after my Termination of Employment;

3. I have carefully read and understand this Release;

4. The Company advised me to consult with an attorney and/or any other advisors of my choice before signing this Release;

5. I understand that this Release is **LEGALLY BINDING** and by signing it I give up certain rights;

6. I have voluntarily chosen to enter into this Release and have not been forced or pressured in any way to sign it;

7. I acknowledge and agree that the Separation Benefits are contingent on execution of this Release, which releases all of my claims against the Company and the Releasees, and I **KNOWINGLY AND VOLUNTARILY AGREE TO RELEASE** the Company and the Releasees from any and all claims I may have, known or unknown, in exchange for the benefits I have obtained by signing, and that these benefits are in addition to any benefit I would have otherwise received if I did not sign this Release;

8. I have seven (7) days after I sign this Release to revoke it by notifying the Company in writing. The Release will not become effective or enforceable until the seven (7) day revocation period has expired;

9. This Release includes a **WAIVER OF ALL RIGHTS AND CLAIMS** I may have under the Age Discrimination in Employment Act of 1967 (29 U.S.C. §621 *et seq.*); and

10. This Release does not waive any rights or claims that may arise after this Release becomes effective, which is seven (7) days after I sign it, provided that I do not exercise my right to revoke this Agreement.

Intending to be legally bound, I have signed this Release as of the date written below.

Signature: _____ Date Signed: _____

EXHIBIT B

INDEMNIFICATION AGREEMENT

Exhibit 10.5

August 6, 2015

Dr. Kaushik J. Dave
4 Winter Street
Edison, NJ 08820

Dear Dr. Dave:

On behalf of Actinium Pharmaceuticals, Inc. (the "Company"), I am pleased to provide you with this amendment and restatement of your employment agreement (the "Agreement") for the position of Chief Executive Officer.

1. Position. The terms of your position with the Company are as set forth below:

(a) You shall serve as Chief Executive Officer of the Company with such responsibilities, duties and authority as are assigned to you by the Company's Board of Directors (the "Board"), or its designee. These responsibilities shall include implementation of the overall direction of the Company as set by the Board, including, planning, corporate policies, research and development, staffing, finance and operations. You shall perform such other duties and shall have authority consistent with your position as may be from time to time specified by the Board and subject to the discretion of the Board. You shall report directly to the Board and shall perform your duties for the Company at the Company's principle offices in New York City except for travel that may be necessary or appropriate in connection with the performance of your duties hereunder.

(b) You agree to devote your best efforts and substantially all of your business time to advance the interests of the Company and to discharge adequately your duties hereunder. You may hold up to two board seats on for-profit and not-for-profit boards that do not represent a conflict with the Company and subject to Board approval after review of the time commitment involved.

2. Start Date. You commenced this position with the Company on September 16, 2013 ("Start Date").

3. Proof of Right to Work. For purposes of federal immigration law, you will be required to provide to the Company documentary evidence of your identity and eligibility for employment in the United States.

4. Compensation.

(a) Base Salary. You will be paid an annual base salary of three hundred and fifty thousand dollars ($350,000), which will be paid in accordance with the Company's regular payroll practices. In addition, for the duration that the Company maintains its primary office in New York City, the Company will reimburse you for up to $500 per month in travel expenses plus the dollar amount of the difference between your New York State and New Jersey State taxes based on your income from the Company. Upon the six month anniversary of your Start Date, the Board will review your base salary, with the help of an independent compensation consultant, to adjust your base salary so as to be competitively aligned to a range between the 25th (twenty-fifth) and 75th (seventy-fifth) percentile of the relevant market data of CEO positions of similarly situated publicly traded Biotech companies. The Board shall review the amount of your base salary and performance bonus, and shall determine the appropriate adjustments to each component of your compensation within 60 days of the start of each calendar year.

(b) Performance Cash Bonus. You shall be entitled to participate in an executive bonus program, which shall be established by the Board pursuant to which the Board shall award bonuses to you, based upon the achievement of written individual and corporate objectives such as the Board shall determine. Upon the attainment of such performance objectives, in addition to your base salary, you shall be entitled to a cash bonus in an amount to be determined by the Board with a target of forty percent (40%) of your base salary. Within thirty (30) days after the Start Date, the Board shall establish written individual and corporate performance objectives for the balance of 2013 and the amount of the performance pro-rata bonus payable upon the attainment of each objective. At least thirty (30) days before each subsequent calendar year, the Board shall establish written individual and corporate performance objectives for such calendar year and the amount of the performance bonus payable upon the attainment of such objectives. Within sixty (60) days after the end of each calendar year, the Board shall determine the amount of any performance bonus payable hereunder. Any such performance bonus shall be due and payable within ninety (90) days after the end of the calendar year to which it relates.

(c) Stock Option and Restricted Stock Grant. The Board has agreed to grant to you an option to purchase common shares of the Company and restricted stock (the "Grant"). The Grant will consist of (A) an option grant to purchase 675,000 common shares of the Company; (B) 125,000 shares of restricted stock and (C) 100,000 shares of restricted stock a sign-on bonus of which fifty percent (50%) will vest at the one year anniversary of the Start Date. An additional twenty-five percent (25%) each will vest at eighteen months and twenty-four months after the Start Date.

(i) Stock Options. Such options will have an exercise price equal to the prior day closing price of the Company's common stock which is equal to fair market value as determined by the Board on the date of the grant (the "Grant Date"). The Grant Date shall occur no later than 90 days from the start date.

(ii) Restricted Stock Grant (excluding the sign-on bonus). One third (33.33%) of the restricted stock shall be granted upon the next closing of a financing of the Company of at least $5 million, and shall vest per the vesting schedule below. The remaining two thirds (66.66%) of the restricted stock shall be granted upon the treatment of the first patient in 2014 for the Iomab B trial and subject to the vesting schedule below.

(iii) Vesting Schedule. Twenty-eight percent (28%) of the initial options or restricted stock (excluding the sign-on bonus) granted shall vest twelve months after the date of grant and two percent (2%) of the remainder shall vest each month thereafter until fully vested. Such additional options or restricted stock will have an exercise price per share which is equal to fair market value as determined by the Board on the date of the grant. Two percent (2%) of such additional options or stock shall vest each month thereafter until fully vested. The term of all options granted under this Agreement will be for 10 years from the date of grant, subject to your continuing service with the Company. The options or restricted stock will be incentive stock options or stock to the maximum extent allowed by the tax code and will be subject to the terms of the Company's 2013 Stock Plan and the Stock Option Agreement between you and the Company.

5. Benefits.

(a) Benefit Plan — Health Insurance, Retirement and Stock Option Plan. The Company will provide you with the opportunity to participate in the standard benefits plans currently available to other similarly situated employees. The Company reserves the right to cancel and/or change the benefits plans it offers to its employees at any time, subject to applicable law.

(b) Vacation; Sick Leave. You will be entitled to 20 days paid vacation per year, pro-rated for the remainder of this calendar year and pro-rated by the number of hours worked. Vacation may not be taken before it is accrued. You will be entitled to 5 days paid sick leave per year pro-rated.

(c) Other Benefits. The Company will provide you with standard business reimbursements (including mileage, supplies, long distance calls), subject to Company policies and procedures and with appropriate receipts. In addition, you will receive any other statutory benefits required by law.

(d) Reimbursement of Expenses. You shall be reimbursed for all normal items of travel and entertainment and miscellaneous expenses reasonably incurred by you on behalf of the Company provided such expenses are documented and submitted in accordance with the reimbursement policies in effect from time to time.

6. Confidential Information and Invention Assignment Agreement. You have executed the Company's Confidential Information and Invention Assignment Agreement, which remains in full force and effect.

7. At-Will Employment. The initial term of your employment shall be a period of three (3) years from the Start Date, provided that your employment with the Company will be on an "at will" basis, meaning that either you or the Company may terminate your employment at any time for any reason or no reason, without further obligation or liability, except as provided herein. In the event that your employment is terminated because of your death or Disability, the Company's only obligation to you shall be to pay earned, but unpaid, base salary (as of the date of termination) and provide you, if eligible, with the option to elect health coverage under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA"); provided that upon termination of your employment hereunder due to death, your estate also shall be entitled to receive a single lump sum payment equal to three (3) months of your base salary, payable within 30 days of your death. Upon termination of your employment for Cause (as defined below) you shall be paid any accrued and unpaid base salary and benefits through the date of termination and shall have no further rights to any compensation or any other benefits under the Agreement or otherwise.

(a) Termination of Employment Other Than for Cause or Resignation for Good Reason (Not in Connection with a Change in Control). If the Company terminates your employment other than for Cause or if you resign for Good Reason, in any case in circumstances other than those described in Section 7(b), you shall be entitled to the following:

(i) Subject to Section 8 hereof, a single lump sum payment equal to twelve (12) months of your base salary compensation (at the rate in effect as of the date of termination), payable in accordance with the Company's regular payroll practices in effect at the date of termination, on the first payroll date following the date the Release (as defined in Section 8 hereof) becomes effective and irrevocable in accordance with its terms.

(ii) Subject to Section 8 hereof, continued health benefits for the 12-month period beginning on the date of termination, with such period to run concurrently with any period for which you are eligible to elect health coverage under COBRA. Notwithstanding the foregoing, you shall be required to pay any and all employee premiums associated with continued health benefits and, if you become employed by another employer and become covered by such employer's health benefits plan or program, the continued health benefits and cash payments provided hereunder shall cease.

(iii) All outstanding equity awards granted to you under the Company's equity compensation plans shall become immediately vested and exercisable (as applicable) as of the date of such termination and the performance goals with respect to such outstanding performance awards, if any, will deemed satisfied at "target".

(b) Change in Control. If the Company terminates your employment other than for Cause or if you resign for Good Reason, in any case during the 12-month period beginning on the date of a Change in Control (as defined in the 2013 Equity Incentive Plan, as amended), you shall be entitled to the following:

(i) Subject to Section 8 hereof, a single lump sum payment equal to twenty-four (24) months of your compensation (at the rate in effect as of the date of termination), payable in accordance with the Company's regular payroll practices in effect at the date of termination, on the first payroll date following the date the Release (as defined in Section 8 hereof) becomes effective and irrevocable in accordance with its terms.

(ii) Subject to Section 8 hereof, continued health benefits for the 24-month period beginning on the date of termination, with such period to run concurrently with any period for which you are eligible to elect health coverage under COBRA. Notwithstanding the foregoing, you shall be required to pay any and all employee premiums associated with continued health benefits and, if you become employed by another employer and become covered by such employer's health benefits plan or program, the continued health benefits and cash payments provided hereunder shall cease.

(iii) All outstanding equity awards granted to you under the Company's equity compensation plans shall become immediately vested and exercisable (as applicable) as of the date of such termination and the performance goals with respect to such outstanding performance awards, if any, will deemed satisfied at "target".

(c) "Cause" means: (i) willful failure by you to perform your duties and responsibilities to the Company (or a Successor Company, if appropriate) after written notice thereof and a failure to remedy such failure within thirty (30) days of such notice; (ii) commission by you of any act of fraud, embezzlement, dishonesty or any other willful misconduct that has caused or is reasonably expected to cause material injury to the Company (or a Successor Company, if appropriate), including conviction of a felony; (iii) material unauthorized use or disclosure by you of any confidential information of the Company (or a Successor Company, if appropriate) or any other party to whom you owe an obligation of nonuse and nondisclosure as a result of your relationship with the Company (or a Successor Company, if appropriate); or (iv) material breach by you of any of your obligations under any written agreement with the Company (or a Successor Company, if appropriate) after written notice thereof and a failure to remedy such breach within thirty (30) days of such notice. "Successor Company" means the successor entity resulting from a Change of Control or a parent or subsidiary of such successor entity.

(d) "Good Reason" means: (i) the Company's material breach of any of its obligations under this Agreement; (ii) a material reduction by the Company of your base salary or target bonus opportunity;; (iii) a material adverse change in reporting relationship; (iv) an abandonment of, or fundamental change in, the primary business or primary products of the Company, or (v) the Company's regular requirement that you perform services in or relocate to a location that is more than fifty (50) miles from New York City. A termination of employment will not be deemed to be for Good Reason unless the Company does not cure within 30 days after receipt of written notice from you specifying the Good Reason and referring to your right to resign for Good Reason. Any resignation for Good Reason will be effective immediately upon your giving notice of your resignation for Good Reason to the Company, conditioned upon your having provided proper notice of Good Reason and time to cure in accordance with this provision.

(e) "Disability" means that (i) you have been unable, for a period of 180 consecutive business days, to perform your duties under this Agreement, as a result of physical or mental illness or injury, and (ii) a physician selected or approved by the Company has determined that it is either not possible to determine when such inability to perform will cease or that it appears probable that such inability will be permanent during the remainder of your life.

(f) Mitigation. In the event that you are entitled to severance pursuant to this Agreement, you have no duty to mitigate and your severance will not be reduced for any reason.

8. Release. Notwithstanding anything contained herein to the contrary, the Company shall not be obligated to provide any severance payment or benefit under Sections 7(a)(i), 7(a)(ii), 7(b)(i) or 7(b)(ii) hereof unless: (a) you or your legal representative first executes within 50 calendar days after the date of presentment, a release of claims agreement in the form as to be provided by the Company (the "Release") and substantially similar to the form of Release attached hereto as Exhibit A, (b) you do not revoke the Release, and (c) the Release becomes effective and irrevocable in accordance with its terms. The Company shall provide the Release to you for your review within ten (10) days of the date of termination.

9. Non-Solicitation. You agree that during the term of your employment with the Company, and for a period of 24 months following the cessation of employment with the Company for any reason or no reason, you shall not directly or indirectly solicit, induce, recruit or encourage any of the Company's employees or consultants to terminate their relationship with the Company, or attempt any of the foregoing, either for yourself or any other person or entity. For a period of 24 months following cessation of employment with the Company for any reason or no reason, you shall not attempt to negatively influence any of the Company's clients or customers from purchasing Company products or services or to solicit or influence or attempt to influence any client, customer or other person either directly or indirectly, to direct his or its purchase of products and/or services to any person, firm, corporation, institution or other entity in competition with the business of the Company.

10. Arbitration. Any dispute or claim arising out of or in connection with your employment with the Company (except with regard to enforcement of the Confidentiality Agreement) will be finally settled by arbitration in New York, New York in accordance with the Commercial Arbitration Rules of the American Arbitration Association by one arbitrator appointed in accordance with said rules. Judgment on the award rendered by the arbitrator may be entered in any court having jurisdiction thereof. The parties agree that this Agreement evidences a transaction involving interstate commerce and that the operation, interpretation and enforcement of this arbitration provision, the procedures to be used in conducting an arbitration pursuant to this arbitration provision, and the confirmation of any award issued to either party by reason of such arbitration, is governed exclusively by the Federal Arbitration Act, 9 U.S.C. § 21 et seq. Notwithstanding the foregoing, the parties may apply to any court of competent jurisdiction for preliminary or interim equitable relief, or to compel arbitration in accordance with this paragraph, without breach of this arbitration provision. The Company shall pay all fees and expenses for the arbitration itself; provided that the cost of the arbitrator will be equally divided between the parties. The Company will pay your legal fees, provided that, if you substantially do not prevail, the Company shall be reimbursed for your reasonable legal fees.

11. Indemnification. On the date hereof, you have entered into an Indemnification Agreement with the Company which is attached hereto as Exhibit B.

12. Section 280G. In the event it shall be determined that any payment or distribution by the Company to or for your benefit (whether paid or payable or distributed or distributable pursuant to the terms of this Agreement or otherwise) (the "Total Payments"), is or will be subject to the excise tax (the "Excise Tax") imposed by Section 4999 of the Internal Revenue Code of 1986, as amended (the "Code"), then the Total Payments shall be reduced to the maximum amount that could be paid to you without giving rise to the Excise Tax (the "Safe Harbor Cap"), if the net after-tax benefit to you after reducing your Total Payments to the Safe Harbor Cap is greater than the net after-tax (including the Excise Tax) benefit to you without such reduction. The reduction of the amounts payable hereunder, if applicable, shall be made by reducing such payment that trigger the Excise Tax in the following order: (i) reduction of cash payments, (ii) cancellation of accelerated vesting of performance-based equity awards (based on the reverse order of the date of grant), (iii) cancellation of accelerated vesting of other equity awards (based on the reverse order of the date of grant), and (iv) reduction of any other payments due to you (with benefits or payments in any group having different payment terms being reduced on a pro-rata basis). All mathematical determinations, and all determinations as to whether any of the Total Payments are "parachute payments" (within the meaning of Section 280G of the Code), that are required to be made under this paragraph, including determinations as to whether the Total Payments to you shall be reduced to the Safe Harbor Cap and the assumptions to be utilized in arriving at such determinations, shall be made at the Company's expense by the Company's then current independent auditors, or such other nationally recognized accounting firm selected by the Committee prior to the relevant change in control transaction.

13. Section 409A.

(a) In General. It is the Company's intent that this Agreement be exempt from the application of, or otherwise comply with, the requirements of Section 409A of the Code ("Section 409A"). Specifically, any taxable benefits or payments provided under this Agreement are intended to be separate payments that qualify for the "short-term deferral" exception to Section 409A to the maximum extent possible, and to the extent they do not so qualify, are intended to qualify for the involuntary separation pay exceptions to Section 409A, to the maximum extent possible. If neither of these exceptions applies, and if you are a "specified employee" within the meaning of Section 409A, then notwithstanding any provision in this Agreement to the contrary and to the extent required to comply with Section 409A, all amounts that would otherwise be paid or provided to you during the first six (6) months following your date of termination shall instead be accumulated through and paid or provided (without interest) on the first business day following the six-month anniversary of the date of termination. If the period during which the Release must become effective and irrevocable in accordance with its terms spans two calendar years, then, to the extent required to comply with Section 409A, any payment to be made under this Agreement will commence on the first payroll date that occurs in the second calendar year and after the Release has become effective and irrevocable in accordance with its terms. Further, to the extent required to comply with Section 409A: (i) the amount of any expense reimbursement to which you may be entitled hereunder during a calendar year will not affect the amount of reimbursements to be provided in any other calendar year; (ii) your right to receive reimbursement of an eligible expense hereunder is not subject to liquidation or exchange for another benefit; and (iii) provided that the requisite documentation is submitted, the Company will reimburse your eligible expenses on or before the last day of the calendar year following the calendar year in which the expense was incurred.

(b) Separation from Service. A termination of employment shall not be deemed to have occurred for purposes of any provision of this Agreement providing for the payment of any amounts or benefits subject to Section 409A upon or following a termination of employment unless such termination is also a "separation from service" within the meaning of Section 409A and the Participant is no longer providing services (at a level that would preclude the occurrence of a "separation from service" within the meaning of Section 409A) to the Company or its Affiliates as an employee or consultant, and for purposes of any such provision of this Plan, references to a "termination," "termination of employment" or like terms shall mean "separation from service" within the meaning of Section 409A.

14. Attorneys' Fees. Should either party hereto, or any heir, personal representative, successor or assign of either party hereto, resort to legal proceedings in connection with this Agreement or Employee's employment with the Company, the party or parties prevailing in such legal proceedings shall be entitled, in addition to such other relief as may be granted, to recover its or their reasonable attorneys' fees and costs in such legal proceedings from the non prevailing party or parties.

15. Assistance in Litigation. Employee shall, during and after termination of employment, upon reasonable notice, furnish such information and proper assistance to the Company as may reasonably be required by the Company in connection with any litigation in which it or any of its subsidiaries or affiliates is, or may become a party; provided, however, that such assistance following termination shall be furnished at mutually agreeable times and for mutually agreeable compensation.

16. Miscellaneous. This Agreement, together with the Confidentiality Agreement, and Indemnification Agreement sets forth the terms of your employment with the Company and supersedes any prior representations or agreements, whether written or oral. This Agreement may not be modified or amended except by a written agreement, signed by the Company and by you. Whenever possible, each provision of this Agreement will be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Agreement is held to be invalid, illegal or unenforceable in any respect under any applicable law or rule in any jurisdiction, such invalidity, illegality or unenforceability will be lessened or reduced to the extent possible or will be severed and will not affect any other provision and this Agreement will be reformed, construed and enforced in such jurisdiction as if such invalid, illegal or unenforceable provision had never been contained herein. This Agreement will be governed by New York law without reference to rules of conflicts of law. All notices, requests, demands and other communications called for hereunder shall be in writing and shall be deemed given (i) on the date of delivery if delivered personally, (ii) one (1) day after being sent by a well established commercial overnight service, (iii) three (3) days after being mailed by registered or certified mail, return receipt requested, prepaid and addressed to the parties or their successors at the following addresses, or at such other addresses as the parties may later designate in writing, (iv) upon confirmation of facsimile transfer, if sent by facsimile or (v) upon confirmation of delivery when directed to the electronic mail address set forth below, if sent by electronic mail:

If to the Company:	757 Third Avenue, 21st Floor New York, NY 10017
If to you:	4 Winter Street Edison, NJ 08820

17. Withholding of Taxes. The Company may withhold from any amounts payable under this Agreement all federal, state, city or other taxes as the Company is required to withhold pursuant to any law or government regulation or ruling.

To indicate your acceptance of this Agreement, please sign and date this letter in the space provided below and return it to me.

Very truly yours,

ACTINIUM PHARMACEUTICALS, INC.

By: /s/ David Nicholson
David Nicholson
Chairman of Compensation Committee

Date: August 6, 2015

ACCEPTED AND AGREED:

KAUSHIK J. DAVE

/s/ Kaushik J. Dave

Date: August 6, 2015

EXHIBIT A

RELEASE OF CLAIMS

FOR AND IN CONSIDERATION OF the payments and benefits (the "**Separation Benefits**") to be provided to me in connection with the separation of my relationship with the Company, in accordance with the Agreement between Actinium Pharmaceuticals, Inc. (the "**Company**") and me dated as August 6, 2015 (the "**Agreement**"), which Separation Benefits are conditioned on my signing this Release of Claims ("**Release**") and which I will forfeit unless I execute and do not revoke this Release of Claims, I, on my own behalf and on behalf of my heirs and estate, voluntarily, knowingly and willingly release and forever discharge the Company, its subsidiaries, affiliates, parents, and stockholders, together with each of those entities' respective officers, directors, stockholders, employees, agents, fiduciaries and administrators (collectively, the "**Releasees**") from any and all claims and rights of any nature whatsoever which I now have against them up to the date I execute this Release, whether known or unknown, suspected or unsuspected. This Release includes, but is not limited to, any rights or claims relating in any way to my employment or consulting relationship with the Company or any of the other Releasees or the termination thereof, any contract claims (express or implied, written or oral), including, but not limited to, the Agreement, or any rights or claims under any statute, including, without limitation, the Americans with Disabilities Act, the Age Discrimination in Employment Act, the Older Workers' Benefit Protection Act, the Rehabilitation Act of 1973 (including Section 504 thereof), Title VII of the 1964 Civil Rights Act, the Civil Rights Act of 1866 (42 U.S.C. § 1981), the Civil Rights Act of 1991, the Equal Pay Act, the National Labor Relations Act, the Worker Adjustment and Retraining Notification Act, the Family Medical Leave Act, the Lilly Ledbetter Fair Pay Act, the Genetic Information Non-Discrimination Act, the New York State Human Rights Law, the New York City Human Rights Law, and the Employee Retirement Income Security Act of 1974, all as amended, and any other federal, state or local law. This Release specifically includes, but is not limited to, any claims based upon the right to the payment of wages, incentive and performance compensation, bonuses, equity grants, vacation, pension benefits, 401(k) Plan benefits, stock benefits or any other employee benefits, or any other rights arising under federal, state or local laws prohibiting discrimination and/or harassment on the basis of race, color, age, religion, sexual orientation, religious creed, sex, national origin, ancestry, alienage, citizenship, nationality, mental or physical disability, denial of family and medical care leave, medical condition (including cancer and genetic characteristics), marital status, military status, gender identity, harassment or any other basis prohibited by law.

As a condition of the Company entering into this Release, I further represent that I have not filed against the Company or any of the other Releasees, any complaints, claims or lawsuits with any arbitral tribunal, administrative agency, or court prior to the date hereof, and that I have not transferred to any other person any such complaints, claims or lawsuits. I understand that by signing this Release, I waive my right to any monetary recovery in connection with a local, state or federal governmental agency proceeding and I waive my right to file a claim seeking monetary damages in any arbitral tribunal, administrative agency, or court. This Release does not: (i) prohibit or restrict me from communicating, providing relevant information to or otherwise cooperating with the U.S. Equal Employment Opportunity Commission or any other governmental authority with responsibility for the administration of fair employment practices laws regarding a possible violation of such laws or responding to any inquiry from such authority, including an inquiry about the existence of this Release or its underlying facts, or (ii) require me to notify the Company of such communications or inquiry. Furthermore, notwithstanding the foregoing, this Release does not include and will not preclude: (a) rights or claims to vested benefits under any applicable retirement and/or pension plans; (b) rights under the Consolidated Omnibus Budget Reconciliation Act of 1985 ("**COBRA**"); (c) claims for unemployment compensation; (d) rights to defense and indemnification, if any, from the Company for actions or inactions taken by me in the course and scope of my employment with the Company and its parents, subsidiaries and/or affiliates; (e) any rights I may have to obtain contribution as permitted by law in the event of entry of judgment against the Company as a result of any act or failure to act for which I and the Company are held jointly liable; (f) the right to any equity awards that vested prior to or because of the termination of my employment, and/or (g) any actions to enforce the Agreement.

Nothing herein shall be construed to limit my right to (1) respond accurately and fully to any question, inquiry or request for information when required by legal process; or (2) disclose information to regulatory bodies. I understand that I am not required to contact the Company before engaging in such communications.

I acknowledge that, in signing this Release, I have not relied on any promises or representations, express or implied, other than those that are set forth expressly herein or in the Agreement and that are intended to survive separation from employment, in accordance with the terms of the Agreement.

I further acknowledge that:

1. I first received this Release on the date of the Agreement to which it is attached as Exhibit A;

2. I understand that, in order for this Release to be effective, I may not sign it prior to the date of my separation of employment with the Company but that if I wish to receive the Separation Benefits, I must sign and return this Release within 45 days of its presentation to me after my Termination of Employment;

3. I have carefully read and understand this Release;

4. The Company advised me to consult with an attorney and/or any other advisors of my choice before signing this Release;

5. I understand that this Release is **LEGALLY BINDING** and by signing it I give up certain rights;

6. I have voluntarily chosen to enter into this Release and have not been forced or pressured in any way to sign it;

7. I acknowledge and agree that the Separation Benefits are contingent on execution of this Release, which releases all of my claims against the Company and the Releasees, and I **KNOWINGLY AND VOLUNTARILY AGREE TO RELEASE** the Company and the Releasees from any and all claims I may have, known or unknown, in exchange for the benefits I have obtained by signing, and that these benefits are in addition to any benefit I would have otherwise received if I did not sign this Release;

8. I have seven (7) days after I sign this Release to revoke it by notifying the Company in writing. The Release will not become effective or enforceable until the seven (7) day revocation period has expired;

9. This Release includes a **WAIVER OF ALL RIGHTS AND CLAIMS** I may have under the Age Discrimination in Employment Act of 1967 (29 U.S.C. §621 *et seq.*); and

10. This Release does not waive any rights or claims that may arise after this Release becomes effective, which is seven (7) days after I sign it, provided that I do not exercise my right to revoke this Agreement.

Intending to be legally bound, I have signed this Release as of the date written below.

Signature: _____ Date Signed: _____

EXHIBIT B

INDEMNIFICATION AGREEMENT

Exhibit 10.6

Actinium Pharmaceuticals, Inc.

August 6 , 2015

Dr. Dragan Cicic
393 17th Street, Apt 1A
Brooklyn, NY 11215

Dear Dr. Cicic:

This letter hereby amends your employment agreement, dated January 2, 2006, with Actinium Pharmaceuticals, Inc. (the "Employment Agreement"). Pursuant to this amendment your title will be Chief Medical Officer. All other provisions in the Employment Agreement, as amended, shall remain the same.

To indicate your acceptance of this agreement, please sign and date this letter in the space provided below and return it to me.

Very truly yours,

ACTINIUM PHARMACEUTICALS, INC.

By: /s/ Kaushik J. Dave
Kaushik J. Dave
Chief Executive Officer

Date: August 6, 2015

ACCEPTED AND AGREED:

DRAGAN CICIC

/s/Dragan Cicic

Date: August 6, 2015

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL AND ACCOUNTING OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Kaushik J. Dave, certify that:

1. I have reviewed this Form 10-Q of Actinium Pharmaceuticals, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods present in this report;

4. I am responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13-a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principals;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financing reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involved management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 7, 2015

By: */s/ Kaushik J. Dave*
Kaushik J. Dave
Chief Executive Officer and Interim Chief Financial Officer
(Duly Authorized Officer, Principal Executive Officer and Interim Principal Financial and Accounting Officer)

Exhibit 32.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL AND ACCOUNTING OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Actinium Pharmaceuticals, Inc. (the "Company") on Form 10-Q for the period ended June 30, 2015 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Kaushik J. Dave, Chief Executive Officer and Interim Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

2. The information contained in the Quarterly Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: August 7, 2015

By: */s/ Kaushik J. Dave*

Kaushik J. Dave
Chief Executive Officer and Interim Chief Financial Officer
(Duly Authorized Officer, Principal Executive Officer and Interim Principal Financial and Accounting Officer)