Actinium Pharmaceuticals, Inc.
Form S-1
January 31, 2014

As filed with the Securities and Exchange Commission on January 31, 2014

Registration No. _____

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-1

REGISTRATION STATEMENT UNDER THE
SECURITIES ACT OF 1933

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

Delaware	2834	88-0378336
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

501 Fifth Avenue, 3rd Floor
New York, NY 10017
(646) 459-4201
(Address, including zip code, and telephone number,
including area code, of registrant's principal executive offices)

Action Stock Transfer Corporation
2469 E. Fort Union Blvd., Suite 214
Salt Lake City, UT 84121
(801) 274-1088
(Name, address, including zip code, and telephone number,
including area code, of agent for service)

Copies to:

Thomas Slusarczyk, Esq.
Hiscock & Barclay LLP
One Park Place
300 South State Street
Syracuse, New York 13202
Tel No.: (315) 235-2299

Fax No.: (315) 624-7359

Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement becomes effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box: x

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

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 12b2 of the Exchange Act.

Large accelerated filer ¨	Accelerated filer ¨
Non-accelerated filer ¨	Smaller reporting company x

(Do not check if a smaller reporting company)

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CALCULATION OF REGISTRATION FEE

Title of Each Class Of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price per share (2)	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common stock, $0.001 par value per share	1,106,120	$ 5.45(2)	$ 6,028,354	$ 776.45
Common stock, $0.001 par value per share, issuable upon exercise of the common stock warrants	276,529	$ 5.45(2)	$ 1,507,083	$ 194.11
Total	1,382,649			$ 970.56

(1) This registration statement includes an indeterminate number of additional shares of common stock issuable for no additional consideration pursuant to any stock dividend, stock split, recapitalization or other similar transaction effected without the receipt of consideration, which results in an increase in the number of outstanding shares of our common stock. In the event of a stock split, stock dividend or similar transaction involving our common stock, in order to prevent dilution, the number of shares registered shall be automatically increased to cover the additional shares in accordance with Rule 416(a) under the Securities Act of 1933, as amended.

(2) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) under the Securities Act of 1933, as amended, using the average of the high and low prices as reported on the OTC Bulletin Board on January 24, 2014 which was $5.45 per share.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the commission, acting pursuant to said Section 8(a), may determine.

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The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS SUBJECT TO COMPLETION DATED January 31, 2014

1,382,649 Shares of Common Stock

ACTINIUM PHARMACEUTICALS, INC.

This prospectus covers the sale by the selling stockholders of up to (i) 1,106,120 shares of common stock, par value $0.001 per share, held by the selling stockholders, and (ii) 276,529 shares of our common stock issuable upon exercise of common stock warrants held by the selling stockholders named in this prospectus at an exercise price of $9.00 per share. The shares being sold by the selling stockholders were issued to them in private placement transactions which were exempt from the registration and prospectus delivery requirements of the Securities Act of 1933, as amended (the "Securities Act"). Our common stock and warrants are more fully described in "Description of Securities."

We also have a resale registration statement that was declared effective by the Securities and Exchange Commission on November 8, 2013. The November 2013 prospectus covers the sale by the selling stockholders of up to (i) 16,162,319 shares of common stock, par value $0.001 per share, held by the selling stockholders, (ii) 1,559,438 shares of our common stock issuable upon exercise of Series B warrants held by the selling stockholders at an exercise price of $2.48 per share, (iii) 2,673,652 shares of our common stock issuable upon exercise of the 2011 stock offering warrants held by the selling stockholders at an exercise price of $0.78 per share, (iv) 3,755,562 shares of our common stock issuable upon exercise of consulting firm warrants held by the selling stockholders at an exercise price of $0.01 per share, (v) 1,120,499 shares of our common stock issuable upon exercise of placement agent warrants held by the selling stockholders at an exercise price of $0.78 per share, (vi) 464,027 shares of our common stock issuable upon exercise of placement agent warrants held by the selling stockholders at an exercise price of $2.48 per share.

We are not selling any common stock under this prospectus and will not receive any of the proceeds from the sale of shares by the selling stockholders. These shares will be offered for sale by the selling shareholders in accordance with the "Plan of Distribution." We will not receive any proceeds from sales of shares of our common stock or warrants by the selling stockholders. However, to the extent the warrants are exercised for cash, if at all, we will receive the exercise price of the warrants. We will pay the expenses incurred in connection with the offering described in this prospectus, with the exception of brokerage expenses, fees, discounts and commissions, which will be paid by selling stockholders.

Our common stock is presently traded on the OTCQB under the symbol ATNM. On January 30, 2014, the last sale price of our shares as reported by the OTCQB was $5.70 per share. The prices at which the selling stockholders may sell the shares of common stock that are part of this offering may be market prices prevailing at the time of sale, at negotiated prices, at fixed prices, or at varying prices determined at the time of sale. See "Plan of Distribution."

An investment in our common stock may be considered speculative and involves a high degree of risk, including the risk of a substantial loss of your investment. See "Risk Factors" beginning on page 6 to read about the risks you should consider before buying shares of our common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is _____, 2014

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Please read this prospectus carefully. It describes our business, our financial condition and results of operations. We have prepared this prospectus so that you will have the information necessary to make an informed investment decision.

You should rely only on information contained in this prospectus. We have not authorized any other person to provide you with different information. This prospectus is not an offer to sell, nor is it seeking an offer to buy, these securities in any state where the offer or sale is not permitted. The information in this prospectus is complete and accurate as of the date on the front cover, but the information may have changed since that date.

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PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus. This summary does not contain all the information that you should consider before investing in the common stock. You should carefully read the entire prospectus, including "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the consolidated financial statements, before making an investment decision. Our actual results may differ significantly from the results discussed in these forward-looking statements as a result of certain factors, including those described in "Risk Factors" and "Cautionary Note Regarding Forward-Looking Statements." All references to "we," "us," "our," and the "Company" mean Actinium Pharmaceuticals, Inc. and its subsidiary Actinium Corporation.

Business Overview

We are a biopharmaceutical company focused on the $54 billion market for cancer drugs. Our most advanced products are Actimab™-A, an antibody-drug construct containing actinium 225 (Ac-225), currently in human clinical trials for acute myeloid leukemia (AML) and Iomab™-B, an antibody-drug construct containing iodine 131 (I-131), used in myeloconditioning for hematopoietic stem cells transplantation (HSCT) in various indications. Based on the successful Iomab-B End of Phase 2 (EOP-2) meeting and subsequent discussions with the U. S. Food and Drug Administration (FDA), the Company established an agreement on the path to a Biologics License Applications (BLA) submission which included a single pivotal Phase 3 clinical study design. The key clinical study design primary and secondary endpoints and study size were confirmed. Iomab-B is to be used in preparing patients for HSCT. The trial population in this two arm randomized controlled multicenter trial will be refractory AML patients over the age of 55. The trial size was set at 150 patients (75 patients per arm). The Company is developing its cancer drugs using its expertise in radioimmunotherapy. In addition, the Ac-225 based drugs development relies on the patented Alpha Particle Immunotherapy Technology (APIT) platform technology co-developed with Memorial Sloan Kettering Cancer Center (MSKCC), whose indirect subsidiary, Actinium Holdings Ltd., is a significant stockholder of the Company. The APIT technology couples monoclonal antibodies (mAb) with extremely potent but comparatively safe alpha particle emitting radioactive isotopes, in particular actinium 225 and bismuth 213. The final drug construct is designed to specifically target and kill cancer cells while minimizing side effects. The Company intends to develop a number of products for different types of cancer and derive revenue from partnering relationships with large pharmaceutical companies and/or direct sales of its products in specialty markets in the United States.

Since our inception on June 13, 2000, we have not generated any revenues, and as of September 30, 2013, we have incurred net losses of $60.6 million. As of December 31, 2012 and September 30, 2013 our cash balance was $5.7 million, and $4.0 million, respectively, and we need up to $25 million in cash to finance research and development and to cover our ongoing working capital needs through the first quarter of 2016. In December 2013 and January 2014, the Company closed on total gross proceeds of approximately $6.6 million from the private placement of common stock and warrants to new and existing accredited investors. If we do not raise any additional funding, we will be able to continue our operations through 2014 and into the first quarter of 2015. As we have raised 25% of the needed funds, we will be able to conduct our planned operations through 2014 and into the first quarter of 2015. If we raise 50% of the needed funds, we will be able to conduct our planned development programs through the second half of 2015. If we raise 75% or more of the needed funds, we will be able to accelerate our planned development programs through 2015 and into the second quarter of 2016. Our first product is not expected to be commercialized until at least 2017. In the second quarter of 2013 we issued shares of common stock pursuant to the exercise of A-Warrants originally issued in connection with a private placement that closed in January 2013. The warrants were exercised at $1.65 per share, resulting in gross proceeds of approximately $3.5 million for the Company. As the remainder of the outstanding warrants are exercisable on a cashless basis there can be no assurance that we will be able to realize any proceeds from their exercise.

Corporate Information

Our principal executive offices are located at 501 Fifth Avenue, 3rd Floor, New York, NY 10017 and our telephone number is (646) 459-4201. Our website address is www.actiniumpharmaceuticals.com. The information contained therein or connected thereto shall not be deemed to be incorporated into this prospectus or the registration statement of which it forms a part. The information on our website is not part of this prospectus.

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THE OFFERING

Common stock offered by selling stockholders	1,382,649 shares of our common stock including: up to (i) 1,106,120 shares of common stock, par value $0.001 per share, held by the selling stockholders, and (ii) 276,529 shares of our common stock issuable upon exercise of common stock warrants held by the selling stockholders at an exercise price of $9.00 per share.
Common stock outstanding before the offering	24,903,150 shares of common stock (1)
Common stock outstanding after the offering	25,179,682 shares of common stock (2)
Use of proceeds	We will not receive any proceeds from the sale of the common stock by the selling stockholders. However, we may receive up to approximately $2.5 million in the aggregate upon the exercise of the common stock warrants if the holders exercise them for cash. The registration of common stock pursuant to this prospectus does not necessarily mean that any of those shares will ultimately be offered or sold by the selling stockholders. We intend to use the proceeds, if any, received from any cash exercise of the warrants for working capital and general corporate purposes.
Trading Symbol	ATNM
Risk Factors	The common stock offered hereby involves a high degree of risk and should not be purchased by investors who cannot afford the loss of their entire investment. See “Risk Factors”.

(1) Based upon the total number of issued and outstanding shares as of January 22, 2014

(2) Based upon the total number of issued and outstanding shares as of January 22, 2014, and including 276,529 shares of our common stock issuable upon exercise of common stock warrants held by the selling stockholders at an exercise price of $9.00 per share.

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RISK FACTORS

An investment in our common stock involves a high degree of risk. You should carefully consider the risks described below, together with all of the other information included in this Registration Statement, before making an investment decision. If any of the following risks actually occurs, our business, financial condition or results of operations could suffer. In that case, the trading price of our shares of common stock could decline and you may lose all or part of your investment. See "Cautionary Note Regarding Forward Looking Statements" above for a discussion of forward-looking statements and the significance of such statements in the context of this Registration Statement.

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 December 31, 2012 and September 30, 2013, we had a deficit accumulated during development stage of approximately $55.7 million and $60.6 million, respectively. 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 U.S. 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 and we will need to continue to seek capital from time to time to continue development of our lead drug candidates and to acquire and develop other product candidates. Our first product is not expected to be commercialized 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 September 30, 2013 was $4.0 million. In December 2013 and January 2014, the Company closed on total gross proceeds of approximately $6.6 million from the private placement of common stock and warrants to new and existing accredited investors. We expect that we will need approximately $7 million over the next 12 months to finance research and development and to cover our ongoing working capital needs.

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.

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.

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If we fail to obtain or maintain necessary U.S. Food and Drug Administration clearances for our radio-immunotherapy products, or if such clearances are delayed, we will be unable to commercially distribute and market our products.

Our products are subject to rigorous regulation by the U.S. Food and Drug Administration (FDA) and numerous other federal, state and foreign governmental authorities. The process of seeking regulatory clearance or approval to market a radio-immunotherapy product is expensive and time-consuming and, notwithstanding the effort and expense incurred, clearance or approval is never guaranteed. If we are not successful in obtaining timely clearance or approval of API 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 the product has received approval of a Biologics License Application ("BLA") filed with the FDA pursuant to 21 C.F.R. § 314, seeking permission to market the product in interstate commerce in the United States. The BLA process is costly, lengthy and uncertain. Any BLA application filed by the Company 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.

Obtaining clearances or approvals from the FDA and from the regulatory agencies in other countries could result in unexpected and significant costs for us and consume management's time and other resources. The FDA and other 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 a BLA approval or pre-market approvals 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 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 cleared or approved, 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 actually cure cancer.

Only two product candidates of the Company are currently in clinical development. There is an ongoing physician sponsored Phase 1 AML trial at MSKCC with a single dose of Actimab™-A. The Company has also 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 that have been conducted or are currently ongoing at FHCRC with single doses of Iomab™-B. Neither the Company 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 New Drug Application (NDA) approvals.

The NDA 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 Company product candidate receives FDA approval or clearance, expanded uses or uses in new indications of our products may require additional human clinical trials and new regulatory approvals or clearances, including additional IND and NDA submissions and

premarket approvals before we can begin clinical development, and/or prior to marketing and sales. If the FDA requires new clearances or 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 clearances and approvals can be a time-consuming process, and delays in obtaining required future clearances or 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 grant BLA approval of our future product candidates and failure to obtain necessary clearances or approvals for our future 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 drug candidate, Actimab™-A, in AML and in the future expect to submit an BLA to the FDA for approval of this product. This drug candidate is also the subject of an ongoing human safety trial being conducted under a physician IND at MSKCC in New York City. We are in the early stages of evaluating other drug 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, the Company 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 FDA approval of a BLA. The FDA may not approve or clear these products for the indications that are necessary or desirable for successful commercialization. Indeed, the FDA may refuse our requests for BLA market approval of new products, new intended uses or indications to existing or future product candidates. Failure to receive approval for our new products would have an adverse effect on our ability to expand our business.

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Clinical trials necessary to support BLA approval of our future product candidates will be time consuming and expensive. Delays or failures in our clinical trials will 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 BLA approval of Actimab™-A and other product candidates, will be time-consuming and expensive and the outcome 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 support initial safety and efficacy of Actimab™-A 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 final BLA approval of 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.

The issued patents, which are licensed by the Company for the HuM-195 antibody, our acute myeloid leukemia targeting antibody, will begin to 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 Abbott Laboratories (“Facet”). Some of those patents expired in 2013. After these patents expire, others may be eventually able to use an antibody with the same sequence in alpha particle drug products based on alpha particle emitters other than actinium 225 and bismuth 213. Any process that would enable such a competition as described above 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, the Company expects that in order to attract a commercialization partner for that product candidate, it will may need to reach an agreement with Facet 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 the Company’s ability to find a commercialization partner for Actimab™-A which may materially harm our business.

The BC8 antibody utilized in Iomab™-B is not patent protected.

The antibody we use in the conjugated Iomab™ product candidate is not covered by the claims of any issued or pending patents. Accordingly, others may be eventually able to use an antibody with the same sequence in alpha particle drug products based on alpha particle emitters. Any process that would enable such a competition as described above 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 the Company is Oak Ridge National Laboratory (ORNL). It 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, the Company has developed what it believes 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. The Company is now in possession of detailed descriptions of all the developed manufacturing procedures and has 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, the Company does not currently have a relationship with any entity that owns or controls a suitable cyclotron. It has identified possible sources and estimates that it could secure the necessary beam time when needed at a cost of approximately $2 million per year. The Company's contract for supply of this isotope from ORNL extends through the end of 2014, is renewable for future years. However, there can be no assurance that ORNL will decide to renew the contract or that the U.S. Department of Energy will not change its policies that allow for the sale of isotope to the Company. 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 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.

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Development of sufficient and appropriate clinical protocols to demonstrate safety and efficacy are required and we may not adequately develop such protocols to support clearance and 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. They 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 manner than most of the patients. In addition to FDA requirements, our clinical trial requires the approval of the institutional review board, or IRB, at each site selected for participation in our current Actimab™-A clinical trial. We have submitted our clinical trial to the IRBs at participating sites for approval and we have thus far obtained approval from five IRBs. The Company's clinical trial protocols have not been rejected by any IRB.

Additional delays to the completion of clinical studies may result from modifications being made to the protocol during the clinical trial, if such modifications are warranted and/or required by the occurrences in the given trial.

Each such modification has 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 clearance or approval of a product candidate.

There can be no assurance that the data generated using modified protocols will be acceptable to FDA.

There can be no assurance that the data generated using modified protocols will be acceptable to FDA or that if future modifications during the trial are necessary, that any such modifications will be acceptable to FDA. 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 drug candidates during current or future clinical trials could also result in the FDA delaying our clinical trials or denying or delaying clearance or approval of a product.

The ongoing Phase 1 clinical trial for Actimab™-A conducted at MSKCC 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 the failure of our drug candidate, 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, 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. 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 clearance, have failed to demonstrate safety and effectiveness, we would not receive FDA clearance 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 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.

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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 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.

Even if our product candidates are approved by regulatory authorities, if we or our suppliers fail to comply with ongoing FDA regulation or if we experience unanticipated problems with our products, these products could be subject to restrictions or withdrawal from the market.

Any product candidate for which we obtain FDA clearance or approval, and the manufacturing processes, reporting requirements, post-approval clinical data and promotional activities for such product candidate, will be subject to continued regulatory review, oversight and periodic inspections by the FDA. In particular, we and our suppliers are required to comply with FDA's Quality System Regulations, or QSR, and International Standards Organization, or ISO, regulations for the manufacture of products and other regulations which cover the methods and documentation of the design, testing, production, control, quality assurance, labeling, packaging, storage and shipping of any product candidate for which we obtain clearance or approval. 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. Regulatory bodies, such as the FDA, enforce these regulations through periodic inspections. The failure by us or one of our suppliers to comply with applicable statutes and regulations administered by the FDA and other regulatory bodies, or the failure to timely and adequately respond to any adverse inspectional observations or safety issues, could result in, among other things, enforcement actions by the FDA and/or other regulatory bodies.

If any of these actions were to occur, it would harm our reputation and cause our future product sales and profitability to suffer and may prevent us from generating revenue. Furthermore, our key component suppliers may not currently be or may not continue to be in compliance with all applicable regulatory requirements which could result in our failure to produce our product candidates on a timely basis and in the required quantities, if at all.

Even if regulatory clearance or approval of a product candidate is granted, such clearance or 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.

In addition, we may be required to conduct costly post-market testing and surveillance to monitor the safety or effectiveness of our products, and we must comply with adverse event and pharmacovigilance reporting requirements, including the reporting of adverse events which occur in connection with, and whether or not directly related to, our products. Later discovery of previously unknown problems with our products, including unanticipated adverse events or adverse events of unanticipated severity or frequency, manufacturing problems, or failure to comply with regulatory requirements, may result in changes to labeling, restrictions on such products or manufacturing processes, withdrawal of the products from the market, voluntary or mandatory recalls, a requirement to recall, replace or refund the cost of any product we manufacture or distribute, fines, suspension of regulatory approvals, product seizures, injunctions or the imposition of civil or criminal penalties which would adversely affect our business, operating results and prospects.

Our revenue stream will depend upon third party reimbursement.

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 an NDA for that product and may not be granted until many months after NDA approval. In order to obtain reimbursement arrangements 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.

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Our Business as a "Going Concern"

In expressing an opinion on our 2012 financial statements, our auditor has expressed its opinion as to our business being a "going concern". Such an opinion indicates that the business lacks sufficient liquidity to remain operating as a business entity for the next 12 months. Our ability to continue operations is dependent on the successful execution of our plans, which include the expectation of raising debt or equity based capital, with some additional funding from other traditional financing sources, including term notes, until such time that funds provided by operations are sufficient to fund working capital requirements. We may need to issue additional equity and incur additional liabilities with related parties to sustain our existence although no commitments for funding have been made and no assurance can be made that such commitments will be available.

We are dependent on third parties for manufacturing and marketing of our proposed proprietary products. If we are not able to secure favorable arrangements with such third parties, our business and financial condition would be harmed.

We will not manufacture any of our proposed proprietary products for commercial sale nor do we have the resources necessary to do so. In addition, we currently do not have the capability to market drug products ourselves. We intend to contract with specialized manufacturing companies to manufacture our proposed proprietary products and partner with larger pharmaceutical companies for their commercialization. In connection with our efforts to commercialize our proposed proprietary products, 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 proposed proprietary products, 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 proprietary 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 proposed proprietary products, 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 proposed proprietary products 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 proposed proprietary products 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 receive 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 II 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 Algeta ASA, Bayer Schering Pharma AG, GlaxoSmithKline Plc and Spectrum Pharmaceuticals, Inc.

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Adverse events involving our products may lead the FDA to delay or deny clearance for our product candidates or result in product recalls that could harm our reputation, business and financial results.

Once a product candidate receives FDA clearance or approval, the agency has the authority to require the recall of commercialized products in the event of adverse side effects, material deficiencies or defects in design or manufacture. The authority to require a recall must be based on an FDA finding that there is a reasonable probability that the device would cause serious injury or death. Manufacturers may, under their own initiative, recall a product if any material deficiency in a product is found. A government-mandated or voluntary recall by us or one of our distributors could occur as a result of adverse side effects, impurities or other product contamination, manufacturing errors, design or labeling defects or other deficiencies and issues. Recalls of any of our products would divert managerial and financial resources and have an adverse effect on our financial condition and results of operations. The FDA requires that certain classifications of recalls be reported to FDA within 10 working days after the recall is initiated. Companies are required to maintain certain records of recalls, even if they are not reportable to the FDA. We may initiate voluntary recalls involving our products in the future that we determine do not require notification of the FDA. If the FDA disagrees with our determinations, they could require us to report those actions as recalls. A future recall announcement could harm our reputation with customers and negatively affect our sales. In addition, the FDA could take enforcement action for failing to report the recalls when they were conducted.

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 the Company does 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.

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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 guaranty 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.

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, in particular, Dr. Dragan Cicic, our Chief Operating Officer and Chief Medical Officer. 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 do not yet know what the consequences may be on our business of the Patient Protection and Affordable Care Act.

In March 2010, President Obama signed the Patient Protection and Affordable Care Act (“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 or taxes on certain health-related industries.

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.

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In addition, other legislative changes have been proposed and adopted since the PPACA was enacted. Most recently, on August 2, 2011, the 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, including aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, starting in 2013. Congress passed and President Obama signed, however, the American Taxpayer Relief Act of 2012 which delays these required cuts for one year. 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 drug 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 drug 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.

Because we were formerly an SEC-reporting shell company, we are subject to SEC rules on seasoning requirements.

The Company, since it was formerly an SEC-reporting shell company, is also subject to SEC rules which require such companies to trade in the over-the-counter markets (or some other national exchanges) for one full fiscal year and to file all periodic reports with the SEC before seeking to “uplist” to a national securities exchange like NASDAQ or NYSE MKT. The Company can only bypass the one year over-the-counter trading requirement if it can complete a firm commitment underwritten public offering with gross proceeds of at least $40 million. As a result, our stockholders may find it more difficult to dispose of shares or obtain accurate quotations as to the market value of our common stock.

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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.

We believe we need up to $25 million in cash to finance research and development and to cover our ongoing working capital needs through 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 capital through the sales of stock and/or issuance of convertible promissory notes 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, by acquiring subscribers email lists, 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.

The filing of our Registration Statement on Form S-1 on March 15, 2013 could have potentially affected our exemption from registration with the SEC for the share exchange that commenced on December 28, 2012, in connection with our exchange of common stock with the shareholders of Actinium Corporation (fka, Actinium Pharmaceuticals, Inc.).

On December 28, 2012, we completed a share exchange, that was approved by 78% of our shareholders (100% of those voting approved the share exchange), with Cactus Ventures, Inc. ("Cactus"), whereby Cactus acquired 21% of the issued and outstanding capital stock of Actinium Corporation from the shareholders of Actinium Corporation (the "Actinium Shareholders") in exchange for the issuance of 4,309,015 shares of Common Stock of the Company to the Actinium Shareholders (the "Share Exchange"). We continued the physical process of exchanging shares with the Actinium Shareholders with closings on March 11, 2013 (with a total of 55.5% shares of Actinium Corporation exchanged) and August 22, 2013 (with a total of 93.7% shares of Actinium Corporation exchanged). On September 25, 2013 all of the remaining Actinium Shareholders shares were exchanged for our common stock pursuant to a merger under Delaware law whereby we merged into our self Actinium Corporation (our subsidiary that was 93.7% owned by us). Under Section 5 of the Securities Act of 1933, unless there is a valid exemption from registration of the securities sold in an offering. All issuers must register non-exempt securities with the SEC. The securities in the Share Exchange were offered and sold in reliance upon exemptions from registration pursuant to Section 4(2) of the Securities Act and Rule 506 of Regulation D ("Regulation D") promulgated under the Securities Act. On March 15, 2013, we filed a Registration Statement on Form S-1 (the "Registration Statement") with SEC to register shares of certain selling shareholders who had purchased shares of the Company in various private placements (the "2013 offering"). If the 2013 Offering were deemed integrated with the Share Exchange we may not be able to rely upon the exemptions from registration pursuant to Section 4(2) of the Securities Act and/or Regulation D, since the filing of the Registration Statement may be deemed general solicitation, which is prohibited for reliance on an exemption from registration under Regulation D. As a result, investors in the Share Exchange may potentially be entitled to bring suit against the Company for offering a non-exempt security without registering it, and such investor may be able to obtain rescission with interest, or damages if the investor sold the securities for less that he or she purchased them.

Future sales of our common stock in the public market could lower the price of our common stock and impair our ability to raise funds in future securities offerings.

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. We believe we need up to $25 million in cash to finance research and development and to cover our ongoing working capital needs through 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 to continue to finance our operations through sales of stock and/or issuance of convertible promissory notes.

Our Common Stock is quoted on the OTCQB which may have an unfavorable impact on our stock price and liquidity.

Our common stock is quoted on the OTCQB, which is a significantly more limited trading market than the New York Stock Exchange or The NASDAQ Stock Market. The quotation of the Company's shares on the OTCQB may result in a less liquid market available for existing and potential stockholders to trade shares of our common stock, could depress the trading price of our common stock and could have a long-term adverse impact on our ability to raise capital in the future.

There is limited liquidity on the OTCQB which may result in stock price volatility and inaccurate quote information.

When fewer shares of a security are being traded on the OTCQB, volatility of prices may increase and price movement may outpace the ability to deliver accurate quote information. Due to lower trading volumes in shares of our common stock, there may be a lower likelihood of one's orders for shares of our common stock being executed, and current prices may differ significantly from the price one was quoted at the time of one's order entry.

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.

Currently, the Company's common stock is quoted in the OTCQB and future trading volume may be limited by the fact that many major institutional investment funds, including mutual funds, as well as individual investors follow a policy of not investing in OTCQB stocks and certain major brokerage firms restrict their brokers from recommending OTCQB stocks because they are considered speculative, volatile and thinly traded. The OTCQB market is an inter-dealer market much less regulated than the major exchanges and our common stock is subject to abuses, volatility and shorting. Thus, there is currently no broadly followed and established trading market for the Company's common stock. An established 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.

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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 the Company's common stock on the OTCQB may not necessarily be a reliable indicator of its fair market value. Further, if we cease to be quoted, holders would find it more difficult to dispose of our common stock or to obtain accurate quotations as to the market value of the Company's common stock and as a result, the market value of our common stock likely would decline.

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. In addition, the OTCQB is subject to extreme price and volume fluctuations in general. 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.

We are subject to penny stock regulations and restrictions and you may have difficulty selling shares of our common stock.

We are subject to the provisions of Section 15(g) and Rule 15g-9 of the Exchange Act, commonly referred to as the "penny stock rule." Section 15(g) sets forth certain requirements for transactions in penny stock, and Rule 15g-9(d) incorporates the definition of "penny stock" that is found in Rule 3a51-1 of the Exchange Act. The SEC generally defines a penny stock to be any equity security that has a market price less than $5.00 per share, subject to certain exceptions. We will be subject to the SEC's penny stock rules.

Since our Common Stock is deemed to be penny stock, trading in the shares of our common stock is subject to additional sales practice requirements on broker-dealers who sell penny stock to persons other than established customers and accredited investors. "Accredited investors" are persons with assets in excess of $1,000,000 (excluding the value of such person's primary residence) or annual income exceeding $200,000 or $300,000 together with their spouse. For transactions covered by these rules, broker-dealers must make a special suitability determination for the purchase of such security and must have the purchaser's written consent to the transaction prior to the purchase. Additionally, for any transaction involving a penny stock, unless exempt the rules require the delivery, prior to the first transaction of a risk disclosure document, prepared by the SEC, relating to the penny stock market. A broker-dealer also must disclose the commissions payable to both the broker-dealer and the registered representative and current quotations for the securities. Finally, monthly statements must be sent disclosing recent price information for the penny stocks held in an account and information to the limited market in penny stocks. Consequently, these rules may restrict the ability of broker-dealer to trade and/or maintain a market in our common stock and may affect the ability of the Company's stockholders to sell their shares of common stock.

There can be no assurance that our shares of common stock will qualify for exemption from the Penny Stock Rule. In any event, even if our common stock was exempt from the Penny Stock Rule, we would remain subject to Section 15(b)(6) of the Exchange Act, which gives the SEC the authority to restrict any person from participating in a distribution of penny stock if the SEC finds that such a restriction would be in the public interest.

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 the Company's 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.

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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. We have been assessing our internal controls to identify areas that need improvement. 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.

At December 31, 2012, management concluded that our disclosure controls and procedures and our internal control over financial reporting were not effective due to several material weaknesses. In addition, at September 30, 2013, management concluded that our disclosure controls and procedures were not effective due to several material weaknesses. To address these weaknesses, management is seeking a full time Chief Financial Officer who is familiar with the public company reporting rules. The Company in December 2012 also established an Audit Committee to address these issues. In September 2013, we hired a VP of Finance who has served in a variety of core finance and business development functions over the span of 12 years at three NASDAQ listed biopharmaceutical companies who is being tasked with remediating such weaknesses. We expect to remediate such weaknesses by the end of the fiscal year 2013. In May 2013, we also engaged an outside third party financial reporting consulting firm to assist with our public company reporting requirements. In November 2013, Richard Steinhart joined the Company's Board of Directors and became the chairman of the Audit Committee. Mr. Steinhart is a CPA and was employed by MELA Sciences, Inc, as their Vice President, Finance and Chief Financial Officer, Treasurer and Secretary from April 2006 through December 30, 2013. We expect to incur costs of $0.2 million in connection with our remediation plan.

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 NDA 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.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward looking statements that involve risks and uncertainties, principally in the sections entitled "Description of Business," "Risk Factors," and "Management's Discussion and Analysis of Financial Condition and Results of Operations." All statements other than statements of historical fact contained in this prospectus, including statements regarding future events, our future financial performance, business strategy and plans and objectives of management for future operations, are forward-looking statements. We have attempted to identify forward-looking statements by terminology including "anticipates," "believes," "can," "continue," "could," "estimates," "expects," "intend "plans," "potential," "predicts," "should," or "will" or the negative of these terms or other comparable terminology. Although do not make forward looking statements unless we believe we have a reasonable basis for doing so, we cannot guarantee their accuracy. These statements are only predictions and involve known and unknown risks, uncertainties and other factors, including the risks outlined under "Risk Factors" or elsewhere in this prospectus, which may cause our or our industry's actual results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time and it is not possible for us to predict all risk factors, nor can we address the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause our actual results to differ materially from those contained in any forward-looking statements. All forward-looking statements included in this document are based on information available to us on the date hereof, and we assumes no obligation to update any such forward-looking statements.

You should not place undue reliance on any forward-looking statement, each of which applies only as of the date of this prospectus. Before you invest in our securities, you should be aware that the occurrence of the events described in the section entitled "Risk Factors" and elsewhere in this prospectus could negatively affect our business, operating results, financial condition and stock price. Except as required by law, we undertake no obligation to update or revise publicly any of the forward-looking statements after the date of this prospectus to conform our statements to actual results or changed expectations.

DIVIDEND POLICY

We plan to retain any earnings for the foreseeable future for our operations. We have never paid any dividends on our common stock and do not anticipate paying any cash dividends in the foreseeable future. Any future determination to pay cash dividends will be at the discretion of our Board of Directors and will depend on our financial condition, operating results, capital requirements and such other factors as our Board of Directors deems relevant. In addition, our credit facility restricts our ability to pay dividends.

USE OF PROCEEDS

We will not receive any proceeds from the sale of the common stock by the selling stockholders. However, we may receive up to approximately $14.8 million in the aggregate upon the exercise of the warrants if the holders exercise them for cash. However, as these warrants also include a cashless exercise feature there can be no assurance that we will receive any capital from the exercise of such warrants. The registration of common stock pursuant to this prospectus does not necessarily mean that any of those shares will ultimately be offered or sold by the selling stockholders. We intend to use the proceeds received from any cash exercise of the warrants for working capital and general corporate purposes.

DILUTION

We are not selling any of the shares of our common stock in this offering. All of the shares sold in this offering will be held by the selling stockholders at the time of the sale, so that no dilution will result from the sale of the shares.

PENNY STOCK CONSIDERATIONS

Our common stock will be a penny stock, therefore, trading in our securities is 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.

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SELLING STOCKHOLDERS

The common shares being offered for resale by the selling stockholders consist of 1,382,649 shares of our common stock that are issued and outstanding, including up to (i) 1105,120 shares of common stock, par value $0.001 per share, held by the selling stockholders, and (ii) 276,529 shares of our common stock issuable upon exercise of common stock warrants held by the selling stockholders at an exercise price of $9.00 per share. These holders include investors in private placement offerings of the Company that closed (A) on December 27, 2013 for the sale of units consisting of an aggregate of (i) 554,310 shares of common stock, and (ii) common stock warrants to purchase up to 138,577 shares of common stock, and (B) on January 10, 2014 for the sale of units consisting of an aggregate of (i) 551,810 shares of common stock, and (ii) common stock warrants to purchase up to 137,952 shares of common stock.

We also have a resale registration statement that was declared effective by the Securities and Exchange Commission on November 8, 2013. The November 2013 prospectus covers the sale by the selling stockholders of up to (i) 16,162,319 shares of common stock, par value $0.001 per share, held by the selling stockholders, (ii) 1,559,438 shares of our common stock issuable upon exercise of Series B warrants held by the selling stockholders at an exercise price of $2.48 per share, (iii) 2,673,652 shares of our common stock issuable upon exercise of the 2011 stock offering warrants held by the selling stockholders at an exercise price of $0.78 per share, (iv) 3,755,562 shares of our common stock issuable upon exercise of consulting firm warrants held by the selling stockholders at an exercise price of $0.01 per share, (v) 1,120,499 shares of our common stock issuable upon exercise of placement agent warrants held by the selling stockholders at an exercise price of $0.78 per share, (vi) 464,027 shares of our common stock issuable upon exercise of placement agent warrants held by the selling stockholders at an exercise price of $2.48 per share. The selling stockholders listed in the November 2013 prospectus are not included in this prospectus.

The following table sets forth certain information regarding the selling stockholders and the shares offered by them in this prospectus. Each selling stockholder's percentage of ownership is based upon 24,903,150 shares of common stock outstanding as of January 22, 2014 and all securities which the person has the right to acquire within 60 days through the exercise of any option or warrant or through the conversion of a convertible security.

Name of Selling Stockholder	Shares Beneficially Owned prior to Offering	Percentage (%) Beneficially Owned prior to Offering	Shares to Offer (1)		Shares Beneficially Owned after Offering	Percentage Beneficially Owned After Offering
Adam Biedrzycki	31,250	*	31,250	(1)	-	-
Alan Greenhalgh & Angela Greenhalgh (JTWROS)	312,491	*	312,491	(2)		
Alberto Sadde & Leonella Olivieri de Sadde (JTWROS)	5,209	*	5,209	(3)	-	-
Andreas Wawrla	636,053	2.55	416,659	(4)	219,394	*
Andrew Bellamy	88,743	*	33,334	(5)	55,409	*
Andrew Ferrett	5,209	*	5,209	(6)	-	-
Andrew Kelly	2,501	*	2,501	(7)	-	-
Anthony Athanas, Jr.	25,000	*	25,000	(8)	-	-
Anthony D'Amato & Marianne D'Amato (JTWROS)	11,250	*	11,250	(9)	-	-
Benoit Dumont	1,228	*	1,228	(10)	-	-
Cesar Fernandez Cardenas	6,875	*	6,875	(11)		
Charles Moore	3,125	*	3,125	(12)	-	-

Christopher Charles Hugh Phillips	5,000	*	5,000	(13)	-	-
Christopher G. Davison	10,000	*	10,000	(14)	-	-
Daniel Huber	6,250	*	6,250	(15)	-	-
Danny Sergeant	4,166	*	4,166	(16)	-	-
David Scott	6,250	*	6,250	(17)	-	-
Dean Beaver	47,500	*	47,500	(18)	-	-
Dr. Thomas J. Rutherford	12,500	*	12,500	(19)	-	-
Eamon Judge	1,041	*	1,041	(20)	-	-
Eduardo Guemez Sarre	12,500	*	12,500	(21)	-	-
Enguerrand de Ponteves	41,766	*	17,603	(22)	24,163	*
Fran Rooney	31,250	*	31,250	(23)	-	-
Frank R. Deis & Donna R. Deis (JTWROS)	1,959	*	1,959	(24)	-	-

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Garfield W. Hardeman TOD	1,250	*	1,250	(25)	-	-
Gary Mossman	15,000	*	15,000	(26)		
Georges Zanellato	12,500	*	12,500	(27)		
Gerhard Plaschka	97,235	*	50,000	(28)	47,235	*
Gregory Alexander	9,166	*	19,166	(29)	-	-
Graham M. Bones	3,541	*	3,541	(30)	-	-
Gurpreet Ahluwalia	12,500	*	12,500	(31)	-	-
Gustavo Almeida De Almedia	1,041	*	1,041	(32)	-	-
James N. White	2,603	*	2,603	(33)	-	-
James W. Anthony & Delisa Anthony (JTWROS)	20,834	*	20,834	(34)	-	-
Jared Sullivan & Shannan Sullivan (JTWROS)	33,294	*	1,041	(35)	32,253	*
Jan Backvall	2,291	*	2,291	(36)	-	-
Jeffrey C. Boggs	7,709	*	7,709	(37)	-	-
Jodi Bennett Cabler	2,084	*	2,084	(38)	-	-
Lawrence Solomon Revocable Living Trust, Lawrence Solomon Trustee	6,250	*	6,250	(39)	-	-
Luis Rafael Nunes	9.062	*	9,062	(40)	-	-
Malcolm C.S. Leslie & Hilary Jane Leslie (JTWROS)	31,250	*	31,250	(41)	-	-
Matura Family Trust UA 05-26-1998	46,799	*	8,959	(42)	37,840	*
Michael C. Fox Revocable Trust DTD 05/05/05	20,834	*	20,834	(43)	-	-
Michael J. Maher	1,500	*	1,500	(44)	-	-
Nicholas Osorio & Paulina Veytia (JTWROS)	2,709	*	2,709	(45)	-	-
P. Casey Fallon	7,291	*	7,291	(46)	-	-
Palisade Productions LLC	6,250	*	6,250	(47)	-	-
Paul Knowlson	5,000	*	5,000	(48)	-	-
Paul T. Fallon	5,209	*	5,209	(49)	-	-
Pedro B. Torres	4,166	*	4,166	(50)	-	-
Pieter M. Duplessis	2,500	*	2,500	(51)	-	-
Richard Burgess	32,911	*	10,209	(52)	22,702	*
Richard P. Maves	7,791	*	7,791	(53)	-	-
Simon C. Guscott	61,769	*	10,416	(54)	51,353	*
Solvay Bank as Custodian for Paul T, Fallon IRA	12,500	*	12,500	(55)	-	-
Sten Anders Fellman	12,500	*	12,500	(56)	-	-
Sterne Agee & Leach Inc. C/F Karen Hale SEP IRA	4,250	*	4,250	(57)	-	-
Sterne Agee & Leach Inc. C/F W. Garner McNett IRA	12,500	*	12,500	(58)	-	-
Sterne Agee & Leach Inc. C/F Ralph Wallis Kettell II SEP IRA	6,250	*	6,250	(59)	-	-
	19,202	*	2,084	(60)	17,118	*

Steven W. Poe and Judith L. Poe (JTWROS)						
Tim D. Lea	12,500	*	12.500	(61)	-	-
Tim Wells	6,250	*	6,250	(62)	-	-
Timothy Fallon	5,209	*	5,209	(63)	-	-
William Bellinger	6,250	*	6,250	(64)	-	-
TOTAL			1,382,649			

* Indicated less than 1%.

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1 Includes (i) 25,000 shares of common stock and (ii) 6,250 shares of common stock issuable upon the exercise of the common stock warrants (Adam Biedrzycki).
2 Includes (i) 249,993 shares of common stock and (ii) 62,498 shares of common stock issuable upon exercise of the common stock warrants. Alan Greenhalgh and Angela Greenhalgh may be deemed to be the beneficial owner of the shares of our common stock held by the Alan Greenhalgh & Angela Greenhalgh (JTWROS) (Alan Greenhalgh & Angela Greenhalgh (JTWROS).
3 Includes (i) 4,167 shares of common stock and (ii) 1,042 shares of common stock issuable upon the exercise of the common stock warrants. Alberto Sadde and Leonella Olivieri de Sadde may be deemed to be the beneficial owner of the shares of our common stock held by the Alberto Sadde & Leonella Olivieri de Sadde (JTWROS). (Alberto Sadde & Leonella Olivieri de Sadde (JTWROS)).
4 Includes (i) 333,327 shares of common stock and (ii) 83,332 shares of common stock issuable upon exercise of the common stock warrants. (Andreas Wawrla).
5 Includes (i) 26,667 shares of common stock and (ii) 6,667 shares of common stock issuable upon exercise of the common stock warrants. (Andrew Bellamy).
6 Includes (i) 4,167 shares of common stock and (ii) 1,042 shares of common stock issuable upon exercise of the common stock warrants (Andrew Ferrett).
7 Includes (i) 2,000 shares of common stock and (ii) 501 shares of common stock issuable upon the exercise of the common stock warrants (Andrew Kelly).
8 Includes (i) 20,000 shares of common stock and (ii) 5,000 shares of common stock issuable upon exercise of the common stock warrants. (Anthony Athanas, Jr.).
9 Includes (i) 9,000 shares of common stock, (and ii) 2,250 shares of common stock issuable upon exercise of the common stock warrants. Anthony D'Amato and Marianne D'Amato may be deemed to be the beneficial owner of the shares of our common stock held by the Anthony D'Amato & Marianne D'Amato (JTWROS). (Anthony D'Amato & Marianne D'Amato (JTWROS).
10 Includes (i) 983 shares of common stock and (ii) 245 shares of common stock issuable upon exercise of the common stock warrants. (Benoit Dumont).
11 Includes (i) 5,500 shares of common stock and (ii) 1,375 shares of common stock issuable upon the exercise of the common stock warrants. (Cesar Fernandez Cardenas).
12 Includes (i) 2,500 shares of common stock and (ii) 625 shares of common stock issuable upon exercise of the common stock warrants. (Charles Moore).
13 Includes (i) 4,000 shares of common stock and (ii) 1,000 shares of common stock issuable upon exercise of the common stock warrants (Christopher Charles Hugh Phillips).
14 Includes (i) 8,000 shares of common stock and (ii) 2,000 shares of common stock issuable upon the exercise of the common stock warrants (Christopher G. Davison).
15 Includes (i) 5,000 shares of common stock and (ii) 1,000 shares of common stock issuable upon exercise of the common stock warrants (Daniel Huber).
16 Includes (i) 3,333 shares of common stock and (ii) 833 shares of common stock issuable upon the exercise of the common stock warrants. (Danny Sergeant).
17 Includes (i) 5,000 shares of common stock and (ii) 1,250 shares of common stock issuable upon exercise of the common stock warrants. (David Scott).
18 Includes (i) 38,000 shares of common stock and (ii) 9,500 shares of common stock issuable upon exercise of the common stock warrants. (Dean Beaver).
19 Includes (i) 10,000 shares of common stock and (ii) 2,500 shares of common stock issuable upon exercise of the common stock warrants (Dr. Thomas J. Rutherford).
20 Includes (i) 833 shares of common stock and (ii) 208 shares of common stock issuable upon exercise of the common stock warrants. (Eamon Judge).
21 Includes (i) 10,000 shares of common stock and (ii) 2,500 shares of common stock issuable upon exercise of the common stock warrants (Eduardo Guemez Sarre).
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Includes (i) 14,083 shares of common stock, and (ii) 3,520 shares of common stock issuable upon exercise of the common stock warrants. (Enguerrand de Ponteves).

23 Includes (i) 25,000 shares of common stock and (ii) 6,250 shares of common stock issuable upon exercise of the common stock warrants. (Fran Rooney).

24 Includes (i) 1,567 shares of common stock and (ii) 392 shares of common stock issuable upon exercise of common stock warrants. Frank R. Deis and Donna R. Deis may be deemed to be the beneficial owner of the shares of our common stock held by the Frank R. Deis & Donna R. Deis (JTWROS). (Frank R. Deis & Donna R. Deis (JTWROS)).

25 Includes (i) 10,000 shares of common stock and (ii) 2,500 shares of common stock issuable upon exercise of the common stock warrants (Garfield W. Hardeman TOD).

26 Includes (i) 12,000 shares of common stock and (ii) 3,000 shares of common stock issuable upon exercise of the common stock warrants (Gary Mossman).

27 Includes (i) 10,000 shares of common stock and (ii) 2,500 shares of common stock issuable upon exercise of the common stock warrants. (Georges Zanellato).

28 Includes (i) 40,000 shares of common stock and (ii) 10,000 shares of common stock issuable upon exercise of the common stock warrants (Gerhard Plaschka).

29 Includes (i) 7,333 shares of common stock and (ii) 1,833 shares of common stock issuable upon exercise of the common stock warrants (Gregory Alexander).

30 Includes (i) 2,833 shares of common stock and (ii) 708 shares of common stock issuable upon exercise of the common stock warrants (Graham M. Bones).

31 Includes (i) 10,000 shares of common stock and (ii) 2,500 shares of common stock issuable upon the exercise of the common stock warrants (Gurpreet Ahluwalia).

32 Includes (i) 833 shares of common stock and (ii) 208 shares of common stock issuable upon exercise of the common stock warrants (Gustavo Almeida De Almedia).

33 Includes (i) 2,083 shares of common stock and (ii) 520 shares of common stock issuable upon exercise of the common stock warrants (James N. White).

34 Includes (i) 16,667 shares of common stock and (ii) 4,167 shares of common stock issuable upon the exercise of the common stock warrants. James W. Anthony and Delisa Anthony may be deemed to be the beneficial owner of the shares of our common stock held by the James W. Anthony & Delisa Anthony (JTWROS). (James W. Anthony & Delisa Anthony (JTWROS)).

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35 Includes (i) 833 shares of common stock and (ii) 208 shares of common stock issuable upon exercise of the common stock warrants. Jared Sullivan & Shannan Sullivan may be deemed to be the beneficial owner of the shares of our common stock held by the Jared Sullivan & Shannan Sullivan (JTWROS). (Jared Sullivan & Shannan Sullivan (JTWROS)).

36 Includes (i) 1,833 shares of common stock and (ii) 458 shares of common stock issuable upon exercise of the common stock warrants. (Jan Backvall).

37 Includes (i) 6,167 shares of common stock and (ii) 1,542 shares of common stock issuable upon the exercise of the common stock warrants (Jeffrey C. Boggs).

38 Includes (i) 1,667 shares of common stock and (ii) 417 shares of common stock issuable upon the exercise of the common stock warrants. (Jodi Bennett Cabler).

39 Includes (i) 5,000 shares of common stock and (ii) 1,250 shares of common stock issuable upon exercise of the common stock warrants. Lawrence Solomon may be deemed to be the beneficial owner of the shares of the common stock held by the Lawrence Solomon Revocable Living Trust, Lawrence Solomon Trustee. (Lawrence Solomon Revocable Living Trust, Lawrence Solomon Trustee).

40 Includes (i) 7,250 shares of common stock and (ii) 1,812 shares of common stock issuable upon the exercise of the common stock warrants (Luis Rafael Nunes).

41 Includes (i) 25,000 shares of common stock and (ii) 6,250 shares of common stock issuable upon exercise of the common stock warrants. Malcolm C.S. Leslie and Hilary Jane Leslie may be deemed to be the beneficial owner of the shares of the common stock held by the Malcolm C.S. Leslie & Hilary Jane Leslie (JTWROS). (Malcolm C.S. Leslie & Hilary Jane Leslie (JTWROS)).

42 Includes (i) 7,167 shares of common stock and (ii) 1,792 shares of common stock issuable upon exercise of the common stock warrants. Margaret I. Matura and Gary D. Matura may be deemed to be the beneficial owner of the shares of the common stock held by the Matura Family Trust UA 05-26-1998. (Matura Family Trust UA 05-26-1998).

43 Includes (i) 16,667 shares of common stock and (ii) 4,167 shares of common stock issuable upon exercise of the common stock warrants. (Michael C. Fox Revocable Trust DTD 05/05/05).

44 Includes (i) 1,200 shares of common stock and (ii) 300 shares of common stock issuable upon exercise of the common stock warrants (Michael J. Maher).

45 Includes (i) 2,167 shares of common stock and (ii) 542 shares of common stock issuable upon exercise of the common stock warrants. Nicholas Osorio & Paulina Veytia may be deemed to be the beneficial owner of the shares of the common stock held by the Nicholas Osorio & Paulina Veytia (JTWROS). (Nicholas Osorio & Paulina Veytia (JTWROS)).

46 Includes (i) 5,833 shares of common stock and (ii) 1,458 shares of common stock issuable upon exercise of the common stock warrants (P. Casey Fallon).

47 Includes (i) 5,000 shares of common stock and (ii) 1,250 shares of common stock issuable upon the exercise of the common stock warrants. Ralph Kettell may be deemed to be the beneficial owner of the shares of the common stock held by Palisade Productions LLC. (Palisade Productions LLC).

48 Includes (i) 4,000 shares of common stock and (ii) 1,000 shares of common stock issuable upon the exercise of the common stock warrants (Paul Knowlson).

49 Includes (i) 4,167 shares of common stock and (ii) 1.042 shares of common stock issuable upon exercise of the common stock warrants. (Paul T. Fallon).

50 Includes (i) 3,333 shares of common stock and (ii) 833 shares of common stock issuable upon exercise of the common stock warrants. (Pedro B. Torres).

51 Includes (i) 2,000 shares of common stock and (ii) 500 shares of common stock issuable upon exercise of the common stock warrants. (Pieter M. Duplessis).

52 Includes (i) 8,167 shares of common stock and (ii) 2,042 shares of common stock issuable upon the exercise of the common stock warrants (Richard Burgess).
53 Includes (i) 6,233 shares of common stock and (ii) 1,558 shares of common stock issuable upon the exercise of the common stock warrants (Richard P. Maves).
54 Includes (i) 8,333 shares of common stock and (ii) 2,083 shares of common stock issuable upon the exercise of the common stock warrants (Simon C. Guscott).
55 Includes (i) 10,000 shares of common stock and (ii) 2,500 shares of common stock issuable upon exercise of the common stock warrants. Paul T. Pallon may be deemed to be the beneficial owner of the shares of the common stock held by Solvay Bank as Custodian for Paul T, Fallon IRA. (Solvay Bank as Custodian for Paul T, Fallon IRA).
56 Includes (i) 10,000 shares of common stock and (ii) 2,500 shares of common stock issuable upon exercise of the common stock (Sten Anders Fellman).
57 Includes (i) 3,400 shares of common stock and (ii) 850 shares of common stock issuable upon exercise of the common stock warrants. Karen Hale may be deemed to be the beneficial owner of the shares of the common stock held by Sterne Agee & Leach Inc. C/F Karen Hale SEP IRA. (Sterne Agee & Leach Inc. C/F Karen Hale SEP IRA).
58 Includes (i) 10,000 shares of common stock and (ii) 2,500 shares of common stock issuable upon the exercise of the common stock warrants. Garner McNett may be deemed to be the beneficial owner of the shares of the common stock held by Sterne Agee & Leach Inc. C/F W. Garner McNett IRA. (Sterne Agee & Leach Inc. C/F W. Garner McNett IRA).
59 Includes (i) 5,000 shares of common stock and (ii) 1,250 shares of common stock issuable upon the exercise of the common stock warrants. Ralph Wallis Kettell may be deemed to be the beneficial owner of the shares of the common stock held by Sterne Agee & Leach Inc. C/F Ralph Wallis Kettell II SEP IRA. (Sterne Agee & Leach Inc. C/F Ralph Wallis Kettell II SEP IRA).
60 Includes (i) 1,667 shares of common stock and (ii) 417 shares of common stock issuable upon the exercise of the common stock warrants. Steven W. Poe and Judith L. Poe may be deemed to be the beneficial owner of the shares of our common stock held by Steven W. Poe and Judith L. Poe (JTWROS). (Steven W. Poe and Judith L. Poe (JTWROS)).
61 Includes (i) 10,000 shares of common stock and (ii) 2,500 shares of common stock issuable upon the exercise of the common stock warrants. (Tim D. Lea).
62 Includes (i) 5,000 shares of common stock and (ii) 1,250 shares of common stock issuable upon exercise of the common stock warrants. (Tim Wells).
63 Includes (i) 4,167 shares of common stock and (ii) 1,042 shares of common stock issuable upon exercise of the common stock warrants (Timothy Fallon).
64 Includes (i) 5,000 shares of common stock and (ii) 1,250 shares of common stock issuable upon exercise of the common stock warrants (William Bellinger).

Except as disclosed in the table above, to our knowledge, none of the selling stockholders or beneficial owners:

has had a material relationship with us other than as a stockholder at any time within the past three years;

has ever been one of our officers or directors or an officer or director of our affiliates; or

are broker-dealers or affiliated with broker-dealers.

With respect to those selling stockholders noted above who are or were affiliated with registered broker-dealers, each has represented to us that the shares being registered for resale were purchased in the ordinary course of business and, at the time of purchase, such selling stockholder had no agreements or understandings, directly or indirectly, with any person to distribute the shares.

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DESCRIPTION OF BUSINESS

Business Overview

We are a biopharmaceutical company focused on the $54 billion market for cancer drugs. Our most advanced products are Actimab™-A, an antibody-drug construct containing actinium 225 (Ac-225), currently in human clinical trials for acute myeloid leukemia (AML) and Iomab™-B, an antibody-drug construct containing iodine 131 (I-131), used in myeloconditioning for hematopoietic stem cells transplantation (HSCT) in various indications. The Company is currently designing a trial which the Company intends to submit for registration approval in HSCT in the settings of refractory and relapsed acute myeloid leukemia in older patients. The Company is developing its cancer drugs using its expertise in radioimmunotherapy. In addition, the Ac-225 based drugs development relies on the patented Alpha Particle Immunotherapy Technology (APIT) platform technology co-developed with Memorial Sloan Kettering Cancer Center (MSKCC), whose indirect subsidiary, Actinium Holdings Ltd., is a significant stockholder of the Company. The APIT technology couples monoclonal antibodies (mAb) with extremely potent but comparatively safe alpha particle emitting radioactive isotopes, in particular actinium 225 and bismuth 213. The final drug construct is designed to specifically target and kill cancer cells while minimizing side effects. The Company intends to develop a number of products for different types of cancer and derive revenue from partnering relationships with large pharmaceutical companies and/or direct sales of its products in specialty markets in the U.S.

Our Corporate History and Background

We were formed as a Nevada corporation on October 6, 1997, originally under the name Zurich U.S.A., Inc. On July 10, 2006, we changed our name to Cactus Ventures, Inc. and began pursuing our business of marketing sunglasses. The Company encountered numerous problems with various vendors and ceased its operations. The Company shifted its efforts to seeking a business combination opportunity with a business entity, and negotiated a merger of a target company into the Company. Upon ceasing its operations, the Company was considered a “blank check” or “Shell” company as such term is defined under the Securities Act. Upon completing the Share Exchange (as defined below), the Company ceased being considered a “blank check” or “Shell” company and is now a clinical-stage biopharmaceutical company developing certain cancer treatments.

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 into our self our subsidiary, Actinium Corporation. 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.

Acquisition of Actinium

On December 28, 2012, Actinium Pharmaceuticals, Inc. (“Actinium”) completed a share exchange with Cactus, whereby Cactus acquired 21% of the issued and outstanding capital stock of Actinium Corporation from the shareholders of Actinium Corporation (the “Actinium Shareholders”) in exchange for the issuance of 4,309,015 shares of Common Stock of the Company to the Actinium Shareholders (the “Share Exchange”). As part of the Share Exchange, Actinium Corporation paid $250,000 to the shareholders of Cactus before the consummation of the Share Exchange.

The Share Exchange was treated as a recapitalization effected through a share exchange, with Actinium Corporation as the accounting acquirer and the Company the accounting acquiree. Unless the context suggests otherwise, when we refer in this Registration Statement to business and financial information for periods prior to the consummation of the Share Exchange, we are referring to the business and financial information of Actinium Corporation.

Effective following the expiration of the ten day period following the mailing of the information statement required by Rule 14f-1 under the Exchange Act, Diane S. Button resigned from her position as member of the Board of Directors of the Company. Effective upon the closing of the Share Exchange, Diane S. Button resigned as an officer of the Company. Also effective upon the closing of the Share Exchange, Jack V. Talley was appointed to our Board of Directors. Effective as of the expiration of the ten day period following the mailing of the information statement required by Rule 14f-1 under the Exchange Act Dr. Rosemary Mazanet, David Nicholson, Sandesh Seth and Sergio Traversa were appointed to our Board of Directors. In addition, our Board of Directors appointed Jack V. Talley to serve as our President and Chief Executive Officer, Dragan Cicic to serve as our Chief Operating Officer and Chief Medical Officer, and Enza Guagenti to serve as our Chief Financial Officer, effective immediately upon the closing of the Share Exchange. On February 28, 2013, Mr. Talley resigned as the President and Chief Executive Officer, and Director of the Company and Actinium. On March 1, 2013, the Board of Directors of the Company unanimously approved the appointment of Dr. Sergio Traversa as the Company's interim President and Chief Executive Officer. Dr. Traversa is also currently a member of the Board of the Company. On September 16, 2013 Dr. Kaushik J. Dave was appointed by the Board of Directors as President, Chief Executive Officer and Director of the Company and at that time Dr. Traversa reverted back his role to as being a Director and interim Chief Financial Officer.

On March 9, 2013, Ms. Guagenti resigned as the Chief Financial Officer of the Company and Actinium. On March 11, 2013, the Board of Directors of the Company unanimously approved the appointment of Sergio Traversa as the Company's interim Chief Financial Officer. The Board is actively looking for a candidate to fill the Chief Financial Officer position of the Company. On March 13, 2013, the Board approved the appointment of Brio Financial Group as the Company's interim Controller, responsible for the Company's treasury and accounting functions. On September 16, 2013 Corey Sohmer was hired as the Company's Vice President of Finance.

As a result of the Share Exchange, the Company assumed the business and operations of Actinium Corporation. 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. Effective April 18, 2013 the Company's new trading symbol is ATNM.

As the Company is a "reporting company" under the Exchange Act of 1934, it is required to file periodic filings with the SEC.

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On March 11, 2013, Actinium Corporation continued its Share Exchange with the Company, whereby the Company 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 7,344,390 shares of Common Stock of the Company to the Actinium Shareholders. On August 22, 2013, Actinium Corporation continued its Share Exchange with the Company, whereby the Company 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 8,009,550 shares of Common Stock of the Company to the Actinium Shareholders. On September 25, 2013 in accordance with a Certificate of Ownership Merging Actinium Corporation into the Company, the Company merged into itself Actinium Corporation, and Actinium Corporation ceased to exist. As a result of the merger, Actinium Corporation stock owned by the Company has been cancelled and each share of Actinium Corporation not owned by the Company was exchanged for 0.333 shares of Company common stock.

Corporate History of Actinium

Actinium Corporation was incorporated in 2000 in the state of Delaware. Until the Share Exchange, Actinium Corporation was a clinical-stage, privately held biopharmaceutical company with:

- Two clinical-stage products, Iomab™-B and Actimab™-A, in development for blood borne cancers;
- Preclinical data in additional cancer indications;
- A proprietary technology platform for novel radioimmunotherapy cancer treatments; and
- A proprietary process for manufacturing of the alpha particle emitting radioactive isotope actinium 225 (Ac-225).

Iomab™-B has completed a Phase 1/2 design trial as a preparatory regimen in conjunction with fludarabine and reduced intensity radiation conditioning in patients who are ineligible for standard myeloablative conditioning for hematopoietic stem cell transplantation (HSCT) and the Company expects it to enter a regulatory approval trial in 2014, subject to input from the FDA concerning the design and conduct of a pivotal trial. This trial was conducted in 68 human subjects at the Fred Hutchinson Cancer Research Center (FHCC) in Seattle, WA, USA. Currently, the IND for this drug is held by the licensor, FHCC. The Company intends to file its own separate IND for the purpose of conducting a Phase 3 trial in 2014. Actimab™-A is currently in a Phase 1/2 trial in newly diagnosed elderly acute myeloid leukemia (AML). In addition, using its patented Alpha Particle Immunotherapy Technology (APIT) platform and via its collaboration with the Memorial Sloan Kettering Cancer Center (MSKCC), the Company has preclinical data on potential drug candidates in several other cancer indications and expects to further develop these into clinical stage drug candidates.

Actinium Corporation has one wholly owned subsidiary, MedActinium, Inc., a Delaware corporation, which is party to certain isotope related licenses and contracts on which the Company relies.

Upon Actinium Corporation’s formation in 2000, it acquired Pharmactinium, Inc. and MedActinium, Inc., and through Pharmactinium, Inc. acquired certain rights to the APIT platform. Core technology patents were in-licensed from N.V. Organon which also provided seed funding. Pharmactinium, Inc. was party to a research and development agreement with MSKCC beginning in 1996. In 2002, this agreement and relationship was significantly expanded and now includes research and development, preclinical development, clinical trials and commercial technology licenses. In 2007, Pharmactinium, Inc. was merged with and into the Company. In 2007, the Company also acquired its sister company, Actinium Pharmaceuticals, Limited (Bermuda) (the “Bermuda Company”), by a merger of the Bermuda Company into the Company and thereby also acquired certain patent licenses relating to APIT previously licensed by the Bermuda Company to the Company.

In 2000, the Company also began what has become a long term relationship with General Atlantic Investments Limited (GAIL), an entity which provided most of the Company's investment capital since 2000, totaling $50.7 million. In 2010, the parent of GAIL contributed and transferred its ownership of GAIL (now renamed Actinium Holdings, Limited), whose only asset at that time was the shares of API, to an indirect subsidiary of MSKCC. In January 2012, the Company closed on $6,685,418 in net funding through the sale of the Company's stock and a Senior Convertible Note financing. On December 19, 2012, Actinium completed a private offering of units, consisting of common stock, Series A warrants and Series B warrants. The price per unit was $1.65 for aggregate net proceeds of $4.5 million. The Series A Warrants had a 120 day term from January 28, 2013 and were exercisable for an aggregate of up to 3,118,968 shares of the Company's common stock at an initial per share exercise price of $1.65, subject to adjustment. The Series A Warrants expired on May 28, 2013. The Series B Warrants have a five year term from January 28, 2013 and are exercisable for an aggregate of up to 1,59,484 shares of the Company's common stock at an initial per share exercise price of $2.48, subject to adjustment. In the second quarter of 2013, we issued shares of common stock pursuant to the exercise of A-Warrants originally issued in connection with a private placement that closed in January 2013. The warrants were exercised at $1.65 per share, resulting in gross proceeds of $3.5 million for the Company.

On September 25, 2013 in accordance with a Certificate of Ownership Merging Actinium Corporation into the Company, the Company merged into itself Actinium Corporation, and Actinium Corporation ceased to exist. As a result of the merger, Actinium Corporation stock owned by the Company has been cancelled and each share of Actinium Corporation not owned by the Company was exchanged for 0.333 shares of Company common stock.

Our executive office is located at 501 Fifth Avenue, 3rd Floor, New York, NY 10017 and our telephone number is (212) 300-2131. Our website address is http://www.actiniumpharmaceuticals.com. Except as set forth below, the information on our website is not part of this Registration Statement.

Summary of Scientific and Business Achievements:

The Company's scientific and business achievements to date include:

- In-licensing a Phase 2 clinical stage monoclonal antibody, BC8, with safety and efficacy data in more than 250 patients in need of Hematopoietic Stem Cell Transplantation (HSCT), currently in 7 active Phase 1 and Phase 2 clinical trials;
- Commencing a Company sponsored multi-center Phase 1/2 clinical trial for Actimab™-A in elderly AML;
- Developing and organizing manufacturing of Actinium's lead drug candidate Actimab™-A which was accepted by the FDA for multi-center human use;
- Supporting three physician sponsored clinical trials, including a Phase 1 and a Phase 1/2 trial with the alpha emitting radioactive isotope bismuth 213 (Bi-213) based AML drug and a Phase I clinical trial with the alpha emitting radioactive isotope actinium 225 (Ac-225) based AML drug;
- In-licensing the AML targeting monoclonal antibody known as HuM195 or Lintuzumab;

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- Establishing clinical and preclinical development relationships with world-class institutions such as MSKCC, FHCRC and University of Texas MD Anderson Cancer Center (the MD Anderson Cancer Center relationship includes clinical trials only), as well as leading clinical experts in the fields of AML and HSCT;
- Securing rights to an intellectual property estate that covers key aspects of the Company's proprietary technology platform;
- Supporting a number of pipeline projects, including preclinical experiments in metastatic prostate cancer, metastatic colon cancer, antiangiogenesis and breast cancer models;
- Maintaining contractual relationship with ORNL of the Department of Energy (DOE) which gives API access to most of the current world supply of Ac-225; and
- Successfully developing commercial production methods for actinium 225.

Business Strategy

We intend to potentially develop its most advanced clinical stage drug candidates through approval in the case of Iomab™-B and up to and including a Phase 2 proof of concept human clinical trial (a trial designed to provide data on the drug's efficacy) in the case of Actimab™-A. If these efforts are successful, we may elect to commercialize Iomab™-B on its own or with a partner in the United States and/or outside of the United States to out-license the rights to develop and commercialize the product to a strategic partner. In the case of Actimab™-A, we will most likely seek to enter into strategic partnerships whereby the strategic partner(s) co-fund(s) further human clinical trials of the drug that are needed to obtain regulatory approvals for commercial sale within and outside of the United States. In parallel, the Company intends to identify and begin initial human trials with additional actinium-225 drug candidates in other cancer indications. We intend to retain marketing rights for its products in the United States whenever possible and outlicense marketing rights to its partners for the rest of the world.

Market Opportunity

We are competing in the marketplace for cancer treatments estimated at over $54 billion in 2011 sales per IMS Health and projected to exceed $76 billion per year by 2015, according to the Global Academy for Medical Education. While surgery, radiation and chemotherapy remain staple treatments for cancer, their use is limited by the fact that they often cause substantial damage to normal cells. On the other hand, targeted monoclonal antibody therapies exert most or all of their effect directly on cancer cells, but often lack sufficient killing power to eradicate all cancer cells with just the antibody. A new approach for treating cancer is to combine the precision of antibody-based targeting agents with the killing power of radiation or chemotherapy by attaching powerful killing agents to precise molecular carriers called monoclonal antibodies (mAb). The Company uses monoclonal antibodies labeled with radioisotopes to deliver potent doses of radiation directly to cancer cells while sparing healthy tissues. The radioisotopes we use are the alpha emitter Ac-225 and the beta emitter I-131. I-131 is among the best known and well characterized radioisotopes. It is used very successfully in treatment of papillary and follicular thyroid cancer as well as other thyroid conditions. It is also attached to a monoclonal antibody in treatment of Non-Hodgkin's Lymphoma (NHL). It is also used experimentally with different carriers in other cancers. Ac-225 has many unique properties and the Company is a leader in developing this alpha emitter for clinical applications using its proprietary APIT technology.

Our most advanced products are Actimab™-A, Ac-225 labeled mAb for treatment of newly diagnosed AML, a cancer of the blood, in patients ineligible for currently approved therapies, and Iomab™-B, I-131 labeled mAb for preparation of relapsed and refractory AML patients for HSCT. Iomab™-B offers a potentially curative treatment for these patients most of whom do not survive beyond a year after being diagnosed with this condition. Iomab™-B has also demonstrated efficacy in HSCT preparation for other blood cancer indications, including Myelodysplastic Syndrome (MDS), acute lymphoblastic leukemia (ALL), Hodgkin's Lymphoma, and Non-Hodgkin's Lymphoma (NHL). These are all follow-on indications for which Iomab™-B can be developed and it is the Companies intention to explore these opportunities.

There are currently no FDA approved treatments for either Actimab™-A or Iomab™-B targeted patients.

Other potential product opportunities in which a significant amount of preclinical work is being undertaken include metastatic colorectal cancer, metastatic prostate cancer and antiangiogenesis which reduces the blood supply to solid tumors.

We believe that our biggest market opportunity lies in the applicability of our APIT platform technology to a wide variety of cancers. A broad range of solid and blood borne cancers can be potentially targeted by monoclonal (mAbs) to enable treatment with its APIT technology. The APIT technology could potentially be applied to mAbs that are already FDA approved to create more efficacious and/or safer drugs ("biobetters").

Clinical Trials

The Company has completed a Phase 1 and Phase 1/2 physician trial in AML at MSKCC using Bismab®-A, The Company's first generation AML drug that consists of bismuth-213 attached to the antibody Lintuzumab™. The Phase II arm of the Bismab®-A drug study has shown signs of the drug's efficacy and safety, including reduction in peripheral blast counts and complete responses in some patients. Bi-213 is a daughter, i.e., product of the degradation of Ac-225, with cancer cell killing properties similar to Ac-225 but is less potent.

The Company has commenced its first company sponsored Phase 1/2 multi-center trial with fractionated (two) doses of Actimab™-A, Actinium's lead product for treatment of elderly AML that consists of an AML specific monoclonal antibody (HuM195, also known as Lintuzumab™) and the actinium 225 radioactive isotope attached to it. The Company intends to conduct these trials at world-class cancer institutions such as MSKCC, Johns Hopkins Medicine, University of Pennsylvania Health System, Fred Hutchinson Cancer Center and MD Anderson Cancer Center.

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The Company also continues to sponsor a Phase 1 AML trial at MSKCC with a single-dose administration of Actimab™-A. Initial data shows elimination of leukemia cells from blood in 67% of all evaluable patients who received a full dose and in 83% of those treated at dose levels above 0.5 microcuries (μCi/kg), and eradication of leukemia cells in both blood and bone marrow in 20% of all evaluable patients and 25% of those treated at dose levels above 0.5 μCi/kg. Dose levels in that trial have been reduced as we continue our work on establishing a maximum tolerated dose.

This Phase I trial builds on the experience with Company's first generation drug Bismab®-A that contains the same antibody used in Actimab™-A but labeled with bismuth 213, a less potent alpha emitting daughter of actinium 225 used in Actimab™-A. Bismab®-A trials and the Phase I Actimab™-A trial were focused on relapsed, refractory and other difficult to treat acute myeloid leukemia patients. The new multicenter Phase 1/2 trial is focused on newly diagnosed AML patients who have historically had better outcomes. In addition, the new trial includes low doses of chemotherapy with the goal of further improving patient outcomes.

Operations

The Company's current operations are primarily focused on furthering the development of its lead clinical drug candidates Actimab™-A and Iomab™-B. In the case of Actimab™-A, key ongoing activities include progressing a multi-center Phase 1/2 trial, support for an ongoing Phase 1 clinical trial at MSKCC in New York, managing isotope and other materials supply chain, and managing the manufacturing of the finished drug candidate product. The Company has secured access to much of the currently available world reserves of Ac-225 and Bi-213 through a renewable contractual arrangement with the United States Department of Energy (DOE). The Company projects that these quantities are sufficient to support early stages of commercialization of alpha isotopes based products. The Company has also developed its own proprietary process for industrial scale Ac-225 production in a cyclotron in quantities adequate to support full product commercialization.

Operations related to Iomab™-B include planning for a registration trial which will include development of commercial scale manufacturing to be suitable for an approval trial and preparation of appropriate regulatory submissions.

For the fiscal years ended December 31, 2012 and December 31, 2011, we spent approximately $3.4 million $0.3 million, respectively, on research and development activities. The first nine months of 2013, the Company incurred $2.4 million on research and development. These expenditures consisted of materials maintenance and purchases, supply chain development and implementation, drug candidate manufacturing expenditures, clinical trials costs and intellectual property portfolio related expenses. Since we have no customers, none of the costs of such research and development activities were borne by our customers.

In the second quarter of 2013 we issued shares of common stock pursuant to the exercise of Series A Warrants originally issued in connection with a private placement that closed in January 2013. The warrants were exercised at $1.65 per share, resulting in gross proceeds of $3.5 million for the Company. In December 2013 and January 2014, the Company closed on total gross proceeds of approximately $6.6 million from the private placement of common stock and warrants to new and existing accredited investors. As of the end of the third quarter 2013 and the additional finances through this latest offering, we believe that we have sufficient cash to continue our operations for the balance of 2014 and into the first quarter of 2015.

We estimate that we will need approximately up to $25 million cash for the period of 2014 to 2016, i.e. until we receive our first product approval. We intend to fund these expenses from a combination of equity and/or debt funding raises and payments obtained from licensing partners.

Failure to raise additional equity or debt funding in the amounts necessary to complete our programs and/or failure to out license our programs on the projected terms may result in a slowing down of our projected development plan or our inability to complete one or more of the planned programs.

Our business plan has not been impacted by our accountants' going concern opinion. Due to our receipt of gross proceeds of $6.6 million in December 2013 and January 2013 from the latest offering, we believe that we have sufficient funds to fund our operations through the first quarter of 2015 and will seek to raise additional funds through equity and/or debt offerings to fund our operations in 2015 to 2016.

Summary of Material Agreements Related to Our Business

a. Abbott Biotherapeutics Corp. We entered into a Product Development and Patent License Agreement with Abbott Biotherapeutics Corp. (formerly Facet Biotech formerly known as Protein Design Labs) in 2003 to secure exclusive rights to a specific antibody when conjugated with alpha emitting radioisotopes. Upon execution of the agreement, we made a license fee payment of $3.0 million.

   We agreed to make milestone payments totaling $7.8 million 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

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Under the agreement, we agreed to pay to Abbott Biotherapeutics Corp on a country-by-country basis a royalty of up to 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.

As of December 31, 2012, we met our first milestone and upon reaching the milestone we paid Abbott Biotherapeutics Corp. a milestone payment of $750,000 on July 24, 2012.

b. Memorial Sloan Kettering Cancer Center (MSKCC). In February 2002, we entered into a license agreement with MSKCC that requires a technology access fee of $50,000 upon execution, an annual maintenance fee of $50,000 and an annual research funding of $50,000 for as long as the agreement is in force.

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, we agreed to 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. We expect to file the NDA for regulatory approval in 2016.

c. Oak Ridge National Laboratory (ORNL) – We have contracted to purchase radioactive material to be used for research and development through December 2012. We contracted to purchase $233,100 of radioactive material to be used for research and development, with a renewal option at the contract end.

d. Aptiv Solutions. Aptiv Solutions provides project management services for the study of the drug Ac-225-HuM195 (Actimab™-A) used in our clinical trials, Phase 1 and Phase 2. The total project is estimated to cost $1,859,333 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. The agreement was amended to provide for additional services on August 6, 2012, October 22, 2012 and May 16, 2013. The total project is now estimated at $2,173,955.

e. Fred Hutchinson Cancer Research Center (FHCRC). On June 15, 2012, we entered into a license and sponsored research agreement with FHCRC. We will build upon previous and ongoing clinical trials, with BC8 (licensed antibody) and eventually develop a clinical trial with Actinium 225. FHCRC has currently completed Phase I and Phase II of the clinical trial and we intend to start preparation for a pivotal trial leading to an FDA approval. We have 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, we 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.

f. MSKCC. On March 27, 2012, we entered into a clinical trial agreement with Memorial Sloan Kettering Cancer Center. The Company will pay $31,185 for each patient that has completed the clinical trial. Upon execution of the agreement, the Company is required to pay a start-up fee of $79,623. The amount due of $79,623 was paid on July 10, 2012.

g. FHCRC. On July 19, 2012, we entered into a clinical trial agreement with FHCRC. We will pay $31,366 for each patient that has completed the clinical trial. Upon execution of the agreement, we are required to pay a start-up fee of $19,749.

h. The University of Texas M.D. Anderson Cancer Center. On August 28, 2012, we 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 $481,204, 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, we were required to make a payment of $33,946.

i. Johns Hopkins University. On September 26, 2012, we entered into a clinical trial agreement with Johns Hopkins University. The Phase 1/2 clinical trial will be conducted with Actinium 225. The clinical trial will be conducted under the protocols established by us and pursuant to an Investigational New Drug Exemption (IND 10807) held by us. We will pay $38,501 per patient, who has completed the clinical trial. We are required to pay a start-up fee of $22,847, an annual pharmacy fee of $2,025 and an amendment processing fee of $500, when applicable.

j. University of Pennsylvania. On November 21, 2012, we entered into a clinical trial agreement with the University of Pennsylvania. The Phase 1/2 clinical trial will be conducted with Actinium 225. The clinical trial will be conducted under the protocols established by us and pursuant to an Investigational New Drug Exemption (IND 10807) held by us. We will pay $31,771 per patient, who has completed the clinical trial. We will be required to pay a start-up fee of $16,000 and additional administrative fees, when applicable.

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Intellectual Property Portfolio

The Company has a patent portfolio with 8 issued patents and 60 pending patents in various jurisdictions as follows: United States: 17 and international: 51. Most of the patents are in-licensed from third parties and some are held by the Company. These patents cover key areas of the Company's activity, including use of the actinium 225 and other alpha emitting isotopes attached (labeled) to cancer specific carriers like monoclonal antibodies, methods for manufacturing key components of the Company's drug candidates including actinium 225 alpha emitting radioisotope and carrier antibodies, methods for manufacturing finished drug candidates for use in cancer treatment, and methods for mitigating potential toxicities of the Company's drug candidates. These patents are classified in families of related patents per the table below:

Area	Claims	Expiration	Status	Licensor
Platform technology	Metastases larger than 1 mm	2020	Allowed	MSKCC
Platform technology	Use of the DOTA chelator for drug manufacturing	2021	Issued	MSKCC
Drug preparation methods	Actinium 225 labeling method	2029	Pending	Owned
Drug preparation methods	Bismuth 213 labeling method	2017/2020	Issued	MSKCC
Isotope production methods	Actinium 225 manufacturing in a cyclotron	2023/2025	Pending/Allowed	Owned
Monoclonal antibody composition and production	Manufacturing of leukemia targeting antibody	2015	Issued	Abbott Laboratories
Methods of treatment	Protection from actinium 225 toxicity	2023	Pending	MSKCC

Key Strengths

The Company believes that the key elements for its market success include:

Clinical results to date imply lower development risk for its lead drug candidates: The Company's lead drug candidates have been tested in over 300 patients and demonstrated favorable safety and efficacy profiles. Iomab™-B has been administered to more than 250 patients in a number of Phase I and Phase II trials and has shown a clear survival benefit in the indication for which it is being developed. Bismab®-A and Actimab™-A, drugs based on the APIT platform have so far been tested in over 60 patients in 3 clinical trials. In each trial they exhibited few side effects and have shown indications of efficacy. The current proof-of-concept Actimab™-A Phase 1/2 clinical trial is directed at a patient population that is generally easier to treat (newly diagnosed vs. relapsed/refractory in previous trials), and employs a more potent treatment regimen (low dose chemotherapy plus two doses of Actimab™-A plus low dose chemotherapy vs. a single dose of Actimab™-A in the physician sponsored trial).

Additional product opportunities from the APIT platform: The Company's Alpha Particle Immunotherapy technology has the potential for broad applicability for the treatment of many cancer types, which allows the Company to add new product candidates to its pipeline

based on well-defined patent protected methods.

Collaboration with MSKCC: The Company's collaboration with MSKCC includes licensing, research and clinical trial arrangements involving MSKCC labs and clinicians and included financial support with respect to certain pre-2012 R&D-related expenses.

Scientific backing of leading experts: The Company's clinical advisory board and collaborators include some of the best recognized clinicians and scientists working at some of the highest regarded medical institutions in the U.S. and the world, including MSKCC, Johns Hopkins University, University of Pennsylvania, FHCC and MD Anderson Cancer Center. This is expected to be beneficial to the Company both in clinical development and market acceptance assuming its drug candidates are approved.

Isotope supply secured for clinical trials: The Company has a contractual relationship with ORNL of the Department of Energy (DOE)) that provides the Company access to the largest known supply reserves of actinium 225. Iodine 131 is readily available from a number of qualified pharmaceutical supply vendors.

Proprietary alpha emitting isotope manufacturing technology fully developed: The Company has developed its own proprietary technology for commercial scale manufacturing of actinium 225. This is expected to ensure commercial supply of Ac-225 for Actimab™-A, Actimab™-B and other actinium-linked products should they be approved.

cGMP Actimab™-A manufacturing developed: The Company has developed at a contractor's site full cGMP (current good manufacturing practices) manufacturing processes for its drug candidate Actimab™-A.

Substantial IP portfolio: The Company has an intellectual property portfolio in excess of 60 patents and patent applications, both in the U.S. and other countries, which cover clinical applications of the APIT technology and methods of manufacturing actinium 225 thus giving the Company control over both the applications of its technology and a supply chain of its key ingredients, actinium 225 and bismuth 213 alpha emitting isotopes.

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Competition Overview

To the Company's knowledge, there are no other commercial entities that have significant programs in place for developing Ac-225- or Bi-213-based drugs. In the wider field of medical oncology, the Company faces competition from: developers of other alpha emitter based drug candidates, other radioimmunotherapy based technologies, technologies for labeling antibodies with toxic drugs (antibody-drug conjugates), and for each disease indication from all drugs available and/or in development.

For Company's lead indication, acute myeloid leukemia, there are a number of companies developing drugs for AML induction in the elderly. These drugs are most often small molecules. Until recently, our leukemia targeting monoclonal antibody HuM195 was under development as a native i.e. unconjugated mAb by Seattle Genetics, Inc., but its development has been discontinued due to lack of efficacy of the native mAb in that company's pivotal trial in AML. To our knowledge, there are no clinical trials that have shown significant efficacy in this indication.

In the field of hematopoietic stem cell transplantation, pharmaceuticals currently used for bone marrow ablation/conditioning are generic drugs and to our knowledge there are no significant industry efforts to enter this area, especially not in older patients.

Government Regulation

Governmental authorities in the United States and other countries extensively regulate, among other things, the research, development, testing, manufacture, labeling, promotion, advertising, distribution and marketing of radioimmunotherapy pharmaceutical products such as those being developed by the Company. In the United States, the U.S. Food and Drug Administration (FDA) regulates such products under the Federal Food, Drug and Cosmetic Act (FDCA) and implements regulations. Failure to comply with applicable FDA requirements, both before and after approval, may subject us to administrative and judicial sanctions, such as a delay in approving or refusal by the FDA to approve pending applications, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions and/or criminal prosecution.

United States FDA Regulation

Our research, development and clinical programs, as well as our manufacturing and marketing operations, are subject to extensive regulation in the United States and other countries. Most notably, all of our products sold in the United States are subject to the FDA as implemented and enforced by the FDA. Certain of our product candidates in the United States require FDA pre-marketing approval of a Biologics License Application (BLA) pursuant to 21 C.F.R. § 314. Foreign countries may require similar or more onerous approvals to manufacture or market these products.

Failure by us or by our suppliers to comply with applicable regulatory requirements can result in enforcement action by the FDA, the Nuclear Regulatory Commission or other regulatory authorities, which may result in sanctions, including but not limited to, untitled letters, warning letters, fines, injunctions, consent decrees and civil penalties; customer notifications or repair, replacement, refunds, recall, detention or seizure of our products; operating restrictions or partial suspension or total shutdown of production; refusing or delaying our requests for BLA premarket approval of new products or modified products; withdrawing BLA approvals that have already been granted; and refusal to grant export.

Properties

The Company does not own any property. The Company has office space at 501 Fifth Avenue, 3rd Floor, New York, NY 10017. The space is month to month and pays approximately $7,500 per month.

Employees

As of January 22, 2013, we have 6 full-time employees. None of these employees are covered by a collective bargaining agreement, and we believe our relationship with our employees is good. We also engage consultants on an as-needed basis to supplement existing staff.

Legal Proceedings

From time to time, we may become involved in various lawsuits and legal proceedings, which arise in the ordinary course of business. Litigation is subject to inherent uncertainties, and an adverse result in these or other matters may arise from time to time that may harm business. We are currently not aware of any such legal proceedings or claims that will have, individually or in the aggregate, a material adverse effect on our business, financial condition or operating results.

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MARKET PRICE OF AND DIVIDENDS ON OUR COMMON STOCK AND RELATED STOCKHOLDER MATTERS

Market Information

Our Common Stock is listed on OTCQB, under the symbol “ATNM”. Our Common Stock ceased trading on the OTCBB on May 29, 2013. The last quoted price for our Common Stock was $5.70 for a trade on January 30, 2014, as reported on www.otcbb.com. However, as there is currently little to no market for our Common Stock, we believe that this last reported price does not accurately reflect the value of the Common Stock or the Company, and it may not be possible to sell Common Stock at this price.

The following table shows, for the periods indicated, the high and low bid prices per share of our common stock as reported by the OTCQB quotation service. These bid prices represent prices quoted by broker-dealers on the OTCQB quotation service. The quotations reflect inter-dealer prices, without retail mark-up, mark-down or commissions, and may not represent actual transactions.

	Fiscal 2014		Fiscal 2013		Fiscal 2012	
	High	Low	High	Low	High	Low
First Quarter (through January 30, 2014))	$ 6.95	$ 5.45	$ 7.50	$ 1.50	$ -	$ -
Second Quarter (April 1 - June 30)	$ -	$ -	$ 6.00	$ 3.10	$ -	$ -
Third Quarter (July 1 - September 30)	$ -	$ -	$ 6.40	$ 3.37	$ -	$ -
Fourth Quarter (October 1 - December 31)	$ -	$ -	$ 7.45	$ 4.70	$ -	$ -

Holders

As of January 22, 2014 there were 24,903,150 shares of common stock issued and outstanding, which were held by 349 holders of record. There are no shares of preferred stock outstanding.

Of the 24,903,150 shares of common stock issued and outstanding, 6,245,627 of such shares are restricted shares under the Securities Act. None of these restricted shares are eligible for resale absent registration or an exemption from registration under the Securities Act. As of the date hereof, until the provisions of Rule 144 are complied with, the exemption from registration provided by Rule 144 under the Securities Act is not available for these shares pursuant to Rule 144(i).

Registration Rights

Certain shareholders are entitled to certain registration rights, including piggy-back registration rights, with respect to the shares of common stock purchased in the offerings conducted by the Company in 2013 and 2014.

The following shares are subject to registration rights:

- 1,106,120 shares of common stock, par value $0.001 per share, held by the selling stockholders issued pursuant to the private placement that closed on December 27, 2013 and January 10, 2014;

276,529 shares of our common stock issuable upon exercise of common stock warrants held by the selling stockholders at an exercise price of $9.00 per share issued pursuant to private placements that closed on December 27, 2013 and January 10, 2014; and

138,265 shares of our common stock issuable upon exercise of placement agent warrants held by the selling stockholders at an exercise price of $9.00 per share issued pursuant to private placements that closed on December 27, 2013 and January 10, 2014.

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In addition:

Certain Investors have registration rights pursuant to the following agreement:

Second Amended and Restated Investor Rights Agreement, dated as of October 5, 2011 (the "Agreement"), by and among Actinium Pharmaceuticals, Inc., a Delaware corporation, Actinium Holdings Limited (formerly named General Atlantic Investments Limited"), a Bermuda corporation, and the persons identified on Exhibit A thereto (collectively, the "Holders").

Pursuant to the terms of the Agreement the Holders have the following registration rights:

(1) Piggyback Rights. - If at any time or from time to time, the Company shall determine to register any of its equity securities for its own account in a direct public offering or an underwritten public offering, the Company will: (i) prior to the filing of such registration give to the Holders written notice thereof; and (ii)include in such registration (and any related qualification under blue sky laws or other compliance), and underwriting, all the Registrable Securities (as defined in the Agreement) specified in a written request or requests made within thirty (30) days after receipt of such written notice from the Company by any Holder.

(2) Demand Registration - If at any time after the earlier of (i) the third anniversary of the October 5, 2011, or (ii) three (3) months after the Company's Common Stock becomes publicly traded (whether through a Qualified Initial Public Offering, a Pubco Transaction (each as defined in the Agreement) or otherwise, (the "Start Date")) , whichever is earlier, Holders of at least thirty-five percent (35%) of the Registrable Securities (as defined in the Agreement) then outstanding request in writing that the Company file a registration statement under the Securities Act covering the registration of at least 20% of the then outstanding Registrable Securities (as defined in the Agreement), or a lesser percentage if the anticipated aggregate offering price, net of underwriting discounts and commissions, would exceed $10,000,000.

Dividends

We have never declared or paid a cash dividend. Any future decisions regarding dividends are made by our Board of Directors. We currently intend to retain and use any future earnings for the development and expansion of our business and do not anticipate paying any cash dividends in the foreseeable future. Our Board of Directors has complete discretion on whether to pay dividends. Even if our Board of Directors decides to pay dividends, the form, frequency and amount will depend upon our future operations and earnings, capital requirements and surplus, general financial condition, contractual restrictions and other factors that the Board of Directors may deem relevant.

Securities Authorized for Issuance Under Equity Compensation Plans

In December 2013 the Company's shareholders approved the Company's 2013 Stock Plan. The expiration date of the plan is September 9, 2023 and the total number of underlying shares of the Company's common stock available for grant to employees, directors and consultants of the Company under the plan is 5,750,000 shares.

In December 2013 the Company's shareholders approved the Company's 2013 Equity Incentive Plan. The expiration date of the plan is September 9, 2023 and the total number of shares of the Company's common stock available for

grant to employees, directors and consultants of the Company under the plan is 1,000,000 shares.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The information and financial data discussed below is derived from the unaudited consolidated financial statements of the Company for its quarterly period ended September 30, 2013 and of Actinium Corporation for the quarterly period ended September 30, 2012, and audited consolidated financial statements of Actinium Corporation for its fiscal years ended December 31, 2012 and 2011. The consolidated financial statements of the Company and Actinium Corporation were prepared and presented in accordance with generally accepted accounting principles in the United States. The information and financial data discussed below is only a summary and should be read in conjunction with the historical financial statements and related notes contained elsewhere in the Registration Statement of which this prospectus is a part. The financial statements contained elsewhere in the Registration Statement of which this prospectus is a part fully represent the Company's' financial condition and results of operations; however, they are not indicative of the Company's future performance. See "Cautionary Note Regarding Forward Looking Statements" above for a discussion of forward-looking statements and the significance of such statements in the context of this Registration Statement.

This discussion contains forward-looking statements reflecting our current expectations that involve risks and uncertainties. Actual results may differ materially from those discussed in these forward-looking statements due to a number of factors, including those set forth in the section entitled "Risk Factors" and elsewhere herein.

Overview

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

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 $0.01 per share, of the Company. The Share Exchange closed on December 28, 2012. As a result of the Share Exchange, the former shareholders of API became the controlling shareholders of the Company. At the closing, each API shareholder received 0.333 shares (the "Exchange Ratio") of Actinium common stock for each API share exchanged. At the closing, all of the API shareholders' options and warrants to purchase API common stock was exchanged at the Exchange Ratio for new options or warrants, as applicable, to purchase Actinium common stock. The Share Exchange was accounted for as a reverse takeover/recapitalization effected by a share exchange, wherein API is considered the acquirer for accounting and financial reporting purposes. The capital, share price, and earnings per share amount in these consolidated financial statements for the period prior to the reverse merger were restated to reflect the recapitalization in accordance with the exchange ratio established in the merger except otherwise noted.

Actinium, incorporated on June 13, 2000, 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), (hereinafter referred to collectively as "Actinium") has initiated collaborative efforts with large institutions to establish the proof of concept of alpha particle immunotherapy and has supported one Phase I/II clinical trial and one Phase I clinical trial at Memorial Sloan-Kettering Cancer Center (MSKCC) under an MSKCC Physician Investigational New Drug 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.

As a result of the Share Exchange, the Company is now a holding company operating through Actinium, a clinical-stage biopharmaceutical company developing certain cancer treatments.

We develop drugs for treatment of cancer with 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 alpha particle immunotherapy or 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 whose immediate proximity they are released. Monoclonal antibodies are genetically engineered proteins that target specifically certain cells, and can target 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 Abbott Laboratories and BC8 in 2012 with the Fred Hutchinson Cancer Research Center. 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.

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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 I trials at the Fred Hutchinson Cancer Research Center. 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 treating acute myeloid leukemia (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 US $7.5 million. Assuming a successful trial we intend to explore out-licensing the Actimab™-A product and potentially receiving payments for co-developing the product with a partner. 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 II 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 55 with active acute myeloid leukemia in relapse and/or refractory to existing treatments. Our intention is to request the FDA 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 2016 will be approximately US $15 million, and up to approximately $25 million for both trials.

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 has been conducted at Memorial Sloan-Kettering Cancer Center in New York. The Company has 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 U.S., including IsoTex Diagnostics, Oak Ridge National Laboratory, Pacific GMP, Fischer Bioservices, BioReliance and others.

We are a development stage company and have never generated revenue. Currently we do not have a stable recurring source of revenues sufficient to cover our operating costs. As of December 31, 2012, we had an accumulated deficit of $55.7 million. We incurred net losses of $8.3 million and $3.4 million in the years ending December 31, 2012 and 2011, respectively.

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 company regularly acquire products in development, with preference given to products in Phase II 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 II 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 Memorial Sloan-Kettering Cancer Center and our Clinical Advisory Board members plan to continue and expand other research and clinical trial collaborations. In addition, 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.

Since our inception on June 13, 2000, we have not generated any revenues, and that as of December 31, 2012, we have incurred net losses of $55.7 million. As of December 31, 2012 and September 30, 2013 our cash balance was $5.6 million and $4.0 million, respectively. In December 2013 and January 2014, the Company closed on total gross proceeds of approximately $6.6 million from the private placement of common stock and warrants to new and existing accredited investors. We need approximately $25 million in cash to finance research and development and to cover our ongoing working capital needs through 2016. If we do not raise any additional funding, we will be able to continue our operations through the first quarter of 2015. As we have raised 25% of the needed funds, we will be able to conduct our planned operations into the first quarter of 2015. If we raise 50% of the needed funds, we will be able to conduct our planned development programs through the second half of 2015. If we raise 75% or more of the needed funds, we will be able to accelerate our planned development programs through 2015 and into the second quarter of 2016. Our first product is not expected to be commercialized until at least 2017. In the second quarter of 2013 we issued shares of common stock pursuant to the exercise of Series A Warrants originally issued in connection with a private placement that closed in January 2013. The warrants were exercised at $1.65 per share, resulting in gross proceeds of $3,457,087 for the Company. We believe that we have enough cash on hand to fund our business through the first quarter of 2015. In order to fund our business beyond the first quarter of 2015 we will likely need to raise money through private offerings of debt and/or equity.

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Results of Operations

Nine Months Ended September 30, 2013 Compared to the Nine Months Ended September 30, 2012

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

	For the nine months ended September 30,	
	2013	2012
Revenues	$ -	$ -
Operating expenses:		
Research and development, net of reimbursements	2,373,200	2,723,459
General and administrative	2,730,233	1,520,221
Other expenses	4,122	429
Total operating expenses	5,107,555	4,244,109
Other (income) expense:		
Interest expense	2,508	952,241
(Gain) loss on change in fair value of derivative liabilities	(216,112)	287,604
Total other (income) expense	(213,604)	1,239,845
Net loss	$ (4,893,951)	$ (5,483,954)

Revenues

We recorded no commercial revenues for the nine months ended September 30, 2013 and 2012.

Research and Development Expense

Research and development expenses decreased by $350,259 to $2,373,200 for the nine months ended September 30, 2013 compared to $2,723,459 for the nine months ended September 30, 2012. The decrease is primarily attributable to the Company conserving capital during the three months ended September 30, 2013.

General and Administrative Expenses

Overall, total general and administrative expenses increased by $1,210,012 to $2,730,233 for the nine months ended September 30, 2013 compared to $1,520,221 for the nine months ended September, 2012. The increase was largely attributable to increases in professional fees and financing related fees incurred by the Company as discussed below.

Other Expense

Other expense decreased by $1,453,449 for the nine months ended September 30, 2013 compared to the nine months ended September 30, 2012. The decrease is primarily attributable a decrease in interest expense related to the amortization of the convertible debt discount and deferred financing costs related to the convertible debt and an increase in the gain on the change in fair value of the derivative liability.

Net Loss

Net loss decreased by $590,003 to $4,893,951 for the nine months ended September 30, 2013 compared $5,483,954 for the nine months ended September 30, 2012. The decrease was primarily due to a decrease in interest expense associated with the amortization of debt discount to interest expense, a decrease in research and development and a gain from change in fair value of the derivative liability efforts and offset by an increase in professional fees and payroll related expense.

Liquidity and Capital Resources

We have financed our operations primarily through sales of the Company’s stock and the issuance of convertible promissory notes.

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

	For the nine months ended September 30,	
	2013	2012
Cash used in operating activities	$ (4,947,969)	$ (3,795,480)
Cash used in investing activities	(8,030)	(1,812)
Cash provided by financing activities	3,327,393	660,163
Net change in cash	$ (1,628,606)	$ (3,137,129)

Net cash used in operating activities was $4,947,969 for the nine months ended September 30, 2013 compared to $3,795,480 used in operations for the same period in 2012. Cash used in operations increased due to the increase in spending related to preparations and eventual launch and conduct of a multicenter 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 $3,327,393 for the nine months ended September 30, 2013 compared to net cash provided by financing activities of $660,163 for the same period in 2012. During the nine months ended September 30, 2013, the Company received proceeds from the exercise of warrants as more discussed below. During the nine months ended September 30, 2012, the Company received net proceeds of $660,163 from sale of its stock.

We have experienced cumulative losses of $60,637,414 from inception (June 13, 2000) through September 30, 2013, and have stockholders' equity of $604,328 at September 30, 2013. In addition, the Company has not completed its efforts to establish a stable recurring source of revenues sufficient to cover its operating costs for the next twelve months. These factors raise substantial doubt regarding the Company's ability to continue as a going concern.

Year Ended December 31, 2012 Compared to Year Ended December 31, 2011

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

	For the Years ended December 31,		Increase
	2012	2011	(Decrease)
Revenues	$ -	$ -	$ -
Operating expenses:			
Research and development, net of reimbursements	3,440,485	323,788	3,116,697
General and administrative	4,506,232	2,959,246	1,546,986
Depreciation expense	581	633	(52)
Total operating expenses	7,947,298	3,283,667	4,633,631
Other (income) expense:			
Interest expense	1,099,327	175,094	924,233
Gain on change in fair value of derivative liabilities	(685,420)	(13,966)	(671,454)
Total other (income) expense	413,907	161,128	252,779
Net loss	$ (8,361,205)	$ (3,444,795)	$ (4,916,410)

Revenues

We recorded no commercial revenues for the year ended December 31, 2012 and 2011.

Research and Development Expense

Research and development expenses increased by $3,116,697 to $3,440,485 for the year ended December 31, 2012 compared to $323,788 for the year ended December 31, 2011. The increase is attributable to the costs incurred on initiation of the multi-center clinical trial for Actimab™-A. The Company also made its first milestone payment of $750,000 to Abbott Biotherapeutics Corp. upon reaching the milestone. The increase also reflected an agreement the Company made with MSKCC as of April 2010, in which MSKCC agreed to pay or reimburse the Company for certain costs and expenses related to the Company's drug development and clinical study program. This agreement expired on October 5, 2011. No reimbursement was due for the year ended December 31, 2012 and $237,834 was due for the year ended December 31, 2011.

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General and Administrative Expenses

Overall, total general and administrative expenses increased by $1,546,986 to $4,506,232 for the year ended December 31, 2012 compared to $2,959,246 for the year ended December 31, 2011. The increase was largely attributable to increases in professional fees and the stock-based compensation incurred by the Company as discussed below.

In connection with the Company's stock offering, in January 2012, we issued warrants to purchase 400,013 shares of common stock to the transaction manager for consulting services related to assisting the Company in preparing to become a publicly traded company. The fair value of $144,463, or $0.36 per share, was a noncash charge to general and administrative expenses for the year ended December 31, 2012. In February 2012, the Company granted options to purchase 2,125,000 shares of common stock to its employees and consultants with a fair value of $531,913. In July 2012, the Company granted options to purchase 90,000 shares of common stock to its consultants with a fair value of $23,770. In August 2012, the Company granted options to purchase 2,875,000 shares of common stock to its employees and consultants with a fair value of $724,784. During the fourth quarter, the Company granted options to purchase 1,085,000 shares of common stock to its employees and consultants with a fair value of $239,310. For the year ended December 31, 2012, the Company recorded amortization of stock-based compensation of $266,172 as a noncash charge to general and administrative expenses.

The increase can also be attributed to additional professional fees of $549,383 related to the year-end audit, the quarterly review, legal fees, and management fees associated with the Company going public. In addition to the professional fees incurred, we increased our personnel. As such, payroll-related expenses for the year ended December 31, 2012 increased compared to the same period in 2011.

Interest Expense

Interest expense increased by $924,233 for the year ended December 31, 2012 compared to the year ended December 31, 2011. The increase in interest expense is directly attributable to interest accrued on the convertible debt, amortization of the convertible debt discount and deferred financing costs related to the convertible debt.

Net Loss

Net loss increased by $4,916,410 to $8,361,205 for the year ended December 31, 2012 compared to $3,444,795 for to the year ended December 31, 2011. The increase was primarily due to additional costs incurred by the Company in research and development expenses, non-cash stock-based compensation costs and professional fees as discussed above.

Liquidity and Capital Resources

We have financed our operations primarily through sales of the Company's stock and the issuance of Convertible Promissory Notes.

We did not have any cash or cash equivalents held in financial institutions located outside of the United States as of December 31, 2012 and 2011. 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 years ended December 31,

	2012	2011
Cash provided by (used in) operating activities	$ (5,212,710)	$ (517,592)
Cash provided by (used in) investing activities	(2,359)	-
Cash provided by (used in) financing activities	5,129,940	6,025,255
Net increase (decrease) in cash	$ (85,129)	$ 5,507,663

Net cash used in operating activities was $5,212,710 for the year ended December 31, 2012 compared to $517,592 used in operations for the same period in 2011. Cash used in operations increased due to the increase in spending related to preparations and eventual launch and conduct of a multicenter 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 $5,129,940 for the year ended December 31, 2012 compared to $6,025,255 for the same period in 2011. In January 2012, we sold 968,759 shares of our stock at $0.78 per share. In 2012, we also sold 3,118,988 shares of our common stock at $1.65 per share. We raised funds through sale of the Company's stock to finance the expansion of our research and development efforts.

We have experienced cumulative losses of approximately $55,743,463 from inception (June 13, 2000) through December 31, 2012, and have stockholders' equity of $1,145,635 at December 31, 2012. In addition, the Company has not completed its efforts to establish a stable recurring source of revenues sufficient to cover its operating costs for the next twelve months. These factors raise substantial doubt regarding the Company's ability to continue as a going concern.

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Recent Debt and Equity Offerings

During 2011, the Company raised $6,184,967 by selling 7,891,141 shares of the Company's stock and warrants to purchase 19,972,785 shares of the Company's stock through an offering ("Stock Offering"). A net amount of $5,379,367 was received by the Company in 2011. The Company paid Laidlaw & Company (UK) Ltd. ("Laidlaw & Co."), the placement agent, total cash fees of $742,196, which consisted of placement agent commission of $618,497 and expense reimbursement of $123,699. In addition, the Company paid Laidlaw & Co.'s outside counsel, McCormick & O'Brien LLP, $60,904 for its services as the placement agent's legal counsel and Signature Bank $2,500 for the bank escrow fee.

On December 27, 2011, the Company completed a private offering of 8% Senior Subordinated Unsecured Convertible Promissory Notes ("Convertible Notes") in the amount of $900,000 and received net proceeds of $750,000. The convertible notes were issued at 83.33% of the principal amount resulting in an original issue discount of $150,000. The Convertible Notes mature one year from the date of issuance. Interest accrues at the rate of 8% per year on the outstanding principal amount, accrued semi-annually and to be paid at maturity. On December 19, 2012, in connection with the Share Exchange, the Convertible Notes were converted into 1,252,550 share of common stock.

During 2012, the Company raised $759,300 by selling 968,759 shares and warrants to purchase 242,190 shares of the Company's common stock under the Company's Stock Offering. A net amount of $660,164 was received by the Company in 2012. The Company paid Laidlaw & Co. total cash fees of $91,116, which consisted of placement agent commission of $75,930 and expense reimbursement of $15,186. In addition, the Company paid Laidlaw & Co.'s outside counsel, McCormick & O'Brien PLLC, $8,020 for its services as the placement agent's legal counsel.

In 2012, the Company raised $5,151,450 through an offering of 3,118,988 shares of its common stock and "A Warrants" to purchase 3,118,988 shares of the Company's common stock, exercisable at a price of $1.65 per share for a period of 120 days from the day of the final closing of the offering, and "B Warrants" to purchase 1,559,505 shares of the Company's common stock, exercisable at a price of $2.48 per share for a period of 5 years from the date of the final closing of the offering. ("2012 Common Stock Offering") A net amount of $4,469,776 was received by the Company. Pursuant to the 2012 Common Stock Offering agreement, the Company paid Laidlaw & Co. total cash fees of $618,174, which consisted of placement agent commission of $515,145 and expense reimbursement of $103,029. The Company also issued the placement agent warrants to purchase an aggregate of 467,845 shares of the Company's common stock, with an exercise price of $0.78 per share and a term of 5 years. These placement agent warrants were valued at $499,707 and recorded as derivative liabilities. In addition, the Company paid the Laidlaw & Co.'s outside counsel, Richardson & Patel, LLP, $60,000 for its services as the Laidlaw & Co.'s legal counsel and Signature Bank $3,500 for the bank escrow fee.

Actinium intends to increase funds available to continue our research and development efforts, which include material supply, manufacturing, clinical development and pre-clinical trials and working capital. In 2014 we expect cash needs of up to $7,000,000 to finance research and development, which include material supply, manufacturing, clinical trials and pre-clinical trials and to cover our ongoing working capital needs.

In the second quarter of 2013 we issued shares of common stock pursuant to the exercise of A-Warrants originally issued in connection with a private placement that closed in January 2013. The warrants were exercised at $1.65 per share, resulting in gross proceeds of $3,457,087 for the Company. In December 2013 and January 2014, the Company closed on total gross proceeds of approximately $6.6 million from the private placement of common stock and warrants to new and existing accredited investors. The proceeds from these exercised warrants and the offering will be used for the Company's clinical and preclinical programs and for general working capital. This capital will allow us to continue to develop our drug candidates for treatment of the most difficult forms of cancer, including Acute Myeloid Leukemia, where the Company has made significant advances and already helped a number of patients. The

Company intends to advance its programs and add new programs by the end of 2013. Shareholders exercised 2,095,204 (67.2%) of the 3,118,988 originally issued A-warrants. The A-warrants expired on May 28, 2013. With exercise of the A-warrants we believe that we have the needed capital for 2013. We do not expect proceeds from the exercise of the outstanding B- warrants, Stock Offering warrants, consulting firm warrants, and placement agent warrants since these warrants contain cash-less exercise provisions. To meet our capital needs beyond 2013 we intend to conduct offerings of either stock and/or debt and also engage in licensing activities. We are currently sponsoring conduct of two clinical trials with Actimab-A (Phase I Physician trial at MSKCC and Phase 1/2 multicenter trial) and preparing for a Phase III trial with Iomab-B. If we do not raise any additional funding, we will be able to continue our operations through the first quarter of 2015. If we do not raise any additional funding, we will be able to continue our operations through 2014 and into the first quarter of 2015. As we have raised 25% of the needed funds, we will be able to conduct our planned operations through 2014 and into the first quarter of 2015. If we raise 50% of the needed funds, we will be able to conduct our planned development programs through the second half of 2015. If we raise 75% or more of the needed funds, we will be able to accelerate our planned development programs through 2015 and into the second quarter of 2016. There can be no assurance that we will be successful in obtaining additional capital through offerings of our securities in the future. Our first product is not expected to be commercialized until at least 2017