

November 1, 2018



## **Actinium Pharmaceuticals ASH Annual Meeting Presence to Include Oral Presentation of Feasibility and Safety Results of lomab-B Pivotal Phase 3 SIERRA Trial and also New Actimab-A Phase 2 Trial Data**

- All patients receiving lomab-B therapy in both the study arm and those that crossed over from the control arm achieved engraftment following bone marrow transplant despite high bone marrow blast counts
- 88% of patients in the control arm failed to achieve a complete response with 65% of eligible patients in the control arm crossing over to receive lomab-B
- Preliminary safety analysis demonstrates the feasibility of targeted conditioning with lomab-B for relapsed or refractory AML patients who have active disease and a high bone marrow blast burden

NEW YORK, Nov. 1, 2018 /PRNewswire/ -- **Actinium Pharmaceuticals, Inc.** (NYSE American: ATNM) announced today that multiple abstracts highlighting its Antibody Radiation Conjugates (ARCs) have been accepted for presentation at the 59<sup>th</sup> American Society of Hematology (ASH) Annual Meeting and Exposition, including an oral presentation of preliminary feasibility and safety results from its pivotal Phase 3 SIERRA trial of lomab-B. The ASH Annual Meeting is being held December 1 – 4, 2018 in San Diego, California. Data presented will highlight Actinium's lead product candidate, lomab-B, that is intended to be a targeted conditioning agent prior to a bone marrow transplant for patients with active relapsed or refractory Acute Myeloid Leukemia (AML) who are over the age of 55. Patients with active relapsed or refractory AML do not routinely undergo allogeneic bone marrow transplant due to a lack of efficacy using standard approaches and typically the survival of such patients without a transplant is less than six months.



## **Iomab-B Oral Presentation Details**

Abstract # 1017

Title: Targeted Conditioning of Iomab-B (<sup>131</sup>I-anti-CD45) Prior to Allogeneic Hematopoietic Cell Transplantation Versus Conventional Care in Relapsed or Refractory Acute Myeloid Leukemia (AML): Preliminary Feasibility and Safety Results from the Prospective, Randomized Phase 3 Sierra Trial

Session Name: 721. Clinical Allogeneic Transplantation: Conditioning Regimens, Engraftment, and Acute Transplant Toxicities: Conditioning Intensity and Novel Approaches with Targeted therapy

Session Date: Monday, December 3, 2018

Presentation Time: 6:45 PM

Room: Manchester Grand Hyatt San Diego, Seaport Ballroom A

Presenter: Dr. Agura, Baylor University Medical Center

*Results as of July 5, 2018*

Dr. Mark Berger, Actinium's Chief Medical Officer said, "We are honored that results from our ongoing Phase 3 trial have been accepted for an oral presentation at this year's ASH annual meeting as approximately just ten percent of accepted abstracts receive this designation. Most importantly, patients with active, relapsed or refractory AML have severely restricted access to bone marrow transplant, the only potentially curative treatment option, so we are we are elated that the initial feasibility and safety data from SIERRA has demonstrated the ability to enable transplant and engraftment for not only all patients initially randomized to Iomab-B but also all those that crossed-over from the control arm when salvage chemotherapy failed to produce a complete response. Importantly, this occurred in patients with high blast counts as the median blast count was 30% and 47% in the Iomab-B arm and cross-over patients, respectively. We look forward to having our data presented at ASH, providing additional updates on this important trial as it progresses and completing the SIERRA trial with the goal of bringing this important targeted conditioning agent to patients with a significant unmet need."

Sandesh Seth, Actinium's Chairman and Chief Executive Officer said, "We are delighted that data representing an important cross-section of our Antibody Radiation Conjugate pipeline will be featured at this year's ASH, particularly the presentation highlighting preliminary results from the SIERRA trial for our lead targeted conditioning asset, Iomab-B. Recognizing that a bone marrow transplant is a potentially curative treatment option for many hematologic diseases, Actinium is focused on improving bone marrow transplant access and outcomes through improved targeted conditioning, which is currently underserved by chemotherapy. We are excited that the data presented in the various forums at ASH will demonstrate the capabilities of our highly differentiated ARC approach for targeted conditioning that we believe is unmatched by other technologies or approaches. We are committed to continuing to expand our targeted conditioning pipeline as we have done with Actimab-MDS with the goal of building an independent fully integrated company."

Data from the Company's CD33 program ARC, Ac-225 – Lintuzumab, and the recently completed Actimab-A Phase 2 trial from for patients newly diagnosed with AML who are unfit for intensive chemotherapy has been accepted for poster presentation. Actinium recently announced in a CD33 program update that, based on the results of the Phase 2 Actimab-A trial, Actinium is continuing to develop Ac-225 – Lintuzumab in two combination trials for patients with relapsed or refractory AML, one being with Venetoclax and the other being with

Venetoclax and Hypomethylating agents. Ac-225 – Lintuzumab is also being studied in patients with multiple myeloma and as a targeted conditioning agent to enable a bone marrow transplant for patients with high-risk Myelodysplastic Syndrome.

### **Actimab-A Abstract Details**

Abstract # 1457

TITLE: A Phase 2 Study of Actinium-225 (225Ac)-Lintuzumab in Older Patients with Untreated Acute Myeloid Leukemia (AML) - Interim Analysis of 1.5 µci/Kg/Dose

Session Name: 616. Acute Myeloid Leukemia: Novel Therapy, excluding Transplantation: Poster I

Date: Saturday, December 1, 2018

Presentation Time: 6:15 PM - 8:15 PM

Location: San Diego Convention Center, Hall GH

Actinium also submitted preliminary data from its lomab-ACT program for next generation targeted lymphodepletion prior to CAR-T therapy. This data will be published online coinciding with the start of the 2018 ASH Annual Meeting.

### **About Actinium Pharmaceuticals, Inc.**

Actinium Pharmaceuticals Inc. is focused on improving patient access and outcomes to cellular therapies such as bone marrow transplant (BMT) and CAR-T with its proprietary, chemotherapy free or sparing, targeted conditioning technology. Actinium is the only company with a multi-disease, multi-target, drug development pipeline focused on targeted conditioning. Its targeted conditioning technology is enabled by ARC's or Antibody Radiation Conjugates that combine the targeting ability of monoclonal antibodies with the cell killing ability of radioisotopes. Actinium's pipeline of clinical-stage targeted conditioning ARCs target the antigens CD45 and CD33 for patients with a broad range of hematologic malignancies including acute myeloid leukemia (AML), myelodysplastic syndrome (MDS) and multiple myeloma (MM), acute lymphoblastic leukemia (ALL), Hodgkin's lymphoma and Non-Hodgkin's lymphoma. Actinium's lomab-ACT program is designed to be a universal lymphodepletion technology intended to eliminate the need for chemotherapy-based conditioning prior to CAR-T or other adoptive cellular therapies.

lomab-B, Actinium's lead targeted conditioning product candidate, is currently enrolling patients in the pivotal Phase 3 SIERRA trial in patients age 55 or older, with active, relapsed or refractory AML. Iodine-131-apamistamab (lomab-B), combines the anti-CD45 monoclonal antibody labeled with iodine-131 for myeloablation prior to a bone marrow transplant. CD45 is expressed on leukemia, lymphoma and normal immune cells. lomab-B has been studied in over 500 patients in 10 clinical trials in numerous hematologic diseases. Actinium's lomab-ACT program is an expansion of its CD45 program that is intended to be a universal, chemotherapy-free solution for targeted lymphodepletion prior to CAR-T. Through targeted lymphodepletion, the lomab-ACT program is expected to improve CAR-T cell expansion, reduce CAR-T related toxicities and expand patient access to CAR-T treatment and potentially other adoptive cell therapies. Due to its lower payload dose, lymphodepletion with the lomab-ACT program can be accomplished through a single outpatient infusion. Actinium intends to advance its lomab-ACT program with CAR-T focused collaborators from academia and industry.

Actinium's pipeline also includes a potentially best-in-class CD33 program with its ARC

comprised of the anti-CD33 antibody lintuzumab labeled with the alpha-particle emitter actinium-225. Its CD33 program is currently being studied in multiple clinical trials for targeting conditioning and as a therapeutic in multiple diseases and indications including AML, MDS and MM. Actinium applies its CD33 program at high doses to target CD33+ cells of the myeloid lineage in combination with reduced intensity conditioning (RIC), which together are intended to result in myeloablative outcomes with a more benign and well tolerated profile than high intensity chemotherapy myeloablation. Actinium is focused on applying its CD33 program at low doses in combination with other therapeutic modalities including chemotherapy, targeted agents and immunotherapies.

Actinium is also developing its proprietary AWE or Antibody Warhead Enabling technology platform which utilizes radioisotopes including iodine-131 and the highly differentiated actinium-225 coupled with antibodies to target a variety of antigens that are expressed in hematological and solid tumor cancers. The AWE technology enables Actinium's internal pipeline and with the radioisotope Actinium-225 is being utilized in a collaborative research partnership with Astellas Pharma, Inc. Actinium's clinical programs and AWE technology platform are covered by a portfolio of 75 patents covering composition of matter, formulations, methods of use and also methods of manufacturing the radioisotope Actinium-225 in a cyclotron.

More information is available at [www.actiniumpharma.com](http://www.actiniumpharma.com) and our Twitter feed @ActiniumPharma, [www.twitter.com/actiniumpharma](https://www.twitter.com/actiniumpharma).

### **Forward-Looking Statements for Actinium Pharmaceuticals, Inc.**

This press release may contain projections or other "forward-looking statements" within the meaning of the "safe-harbor" provisions of the private securities litigation reform act of 1995 regarding future events or the future financial performance of the Company which the Company undertakes no obligation to update. These statements are based on management's current expectations and are subject to risks and uncertainties that may cause actual results to differ materially from the anticipated or estimated future results, including the risks and uncertainties associated with preliminary study results varying from final results, estimates of potential markets for drugs under development, clinical trials, actions by the FDA and other governmental agencies, regulatory clearances, responses to regulatory matters, the market demand for and acceptance of Actinium's products and services, performance of clinical research organizations and other risks detailed from time to time in Actinium's filings with the Securities and Exchange Commission (the "SEC"), including without limitation its most recent annual report on form 10-K, subsequent quarterly reports on Forms 10-Q and Forms 8-K, each as amended and supplemented from time to time.

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