

April 11, 2018



Actinium Pharmaceuticals to Showcase Capabilities of its AWE Technology Platform in Developing Biobetters at Upcoming AACR Annual Meeting

- *In vivo* data to be presented via poster highlighting the ability of Actinium's AWE Technology to yield increased cell killing power, survival benefit and a potential biobetter of daratumumab, a blockbuster CD38 targeted therapy for multiple myeloma
- Members of Actinium's AWE Technology and Corporate Development teams will be available for meetings to discuss the Company's AWE Technology Platform

NEW YORK, April 11, 2018 (GLOBE NEWSWIRE) -- **Actinium Pharmaceuticals, Inc.** (NYSE AMERICAN:ATNM) ("Actinium" or "the Company"), today highlighted its presence at the upcoming American Association for Cancer Research Annual Meeting (AACR) that is being held April 14 – 18 in Chicago, Illinois. Actinium will feature its AWE Technology Platform at AACR including additional data from the Company's efforts focused on creating biobetters and novel antibody radio-conjugates (ARCs). Recently, Actinium announced that it has entered into a collaborative research agreement with Astellas Pharma, Inc. that will leverage the Company's AWE Technology Platform to conjugate and label select Astellas targeting agents with actinium-225. Actinium submitted additional data that has been accepted for poster presentation at AACR, the details of which are below: Details on the poster are as follows:

Title: Conjugation of daratumumab with ²²⁵actinium greatly increases its antitumor activity against multiple myeloma tumors

Abstract Number: 760

Session Category: Experimental and Molecular Therapeutics

Date: Sunday, April 15, 2018, 1:00 – 5:00 PM

At time of abstract submission, the Ac-225 labelled daratumumab at an equimolar concentration demonstrated superior antitumor activity to naked daratumumab in a highly predictive DAUDI model and provided a survival benefit. Additional details will be presented during the poster session at the Annual Meeting.

To arrange a meeting with Actinium Pharmaceuticals at AARC or to learn more about Actinium's AWE Technology Platform, please contact Keisha Thomas, Ph.D., Corporate Development at kthomas@actiniumpharma.com or visit <https://www.actiniumpharma.com/awe-technology>.

Dr. Dale Ludwig, Actinium's Chief Scientific Officer said, "We are heading to AACR with significant momentum around our AWE Technology program following our recently announced collaboration with Astellas and following the exciting preclinical data we published at ASH. At AACR, we will be presenting additional preclinical data further demonstrating the utility and benefits of our AWE Technology platform in enhancing the potency of anti-cancer targeting agents. Collectively, this will showcase our capabilities and we look forward to the interactions we will have with biopharmaceutical companies attending the Annual AACR meeting."

Recently, Actinium presented data at the American Society of Hematology demonstrating the Company's ability to utilize AWE Technology to dramatically enhance the potency of daratumumab, CD38 targeted therapy for patients with multiple myeloma which is marketed by Johnson & Johnson as Darzalex[®], by stably labeling the antibody with the isotope actinium-225. In doing so, tumor cell death in vitro was dramatically enhanced, resulting in potent and selective CD38-dependent cell killing approaching 100% in each of the lines tested.

Sandesh Seth, Actinium's Chairman and CEO said, "We see great potential for our AWE Technology Platform and are encouraged that it has been validated by our collaboration with Astellas Pharma, Inc., a top twenty global biopharmaceutical company. Having formalized our AWE Technology Program less than 6 months ago, we are incredibly pleased with the progress we have made, the team we have built and the data we have generated. Actinium is committed to leading the field in alpha-particle therapies driven by cutting edge research and development, strong translation into clinical programs and building a robust infrastructure that can support late stage development and commercialization."

About Our Actinium Warhead Enabling Technology Platform

The Actinium Warhead Enabling (AWE) Technology Platform enables a highly potent and selective form of targeted therapy that combines the powerful alpha-emitting radioisotope actinium-225 with targeting agents, which are designed to seek out cancer cells in the body that express particular markers. Actinium-225 emits significant alpha radiation making it a potent treatment modality against targeted cancer cells while limiting damage to healthy tissues as its radiation travels extremely short distances in the body. When labeled to targeting agents, actinium-225 can be delivered directly to cancer cells where the high linear energy transfer resulting from the emission of alpha particles results in irreparable DNA double stranded breaks and ultimately cancer cell death. Even though it exhibits superior cell killing power, actinium-225, when delivered in a targeted manner, is sparing of the surrounding environment in the body due to the short path length of its alpha-particle radiation and can result in a superior safety profile. Actinium Pharmaceuticals owns or has licensed the rights to several issued and pending patents that pertain to its AWE Technology Platform including technology to manufacture Actinium-225 in a cyclotron. In addition, the Company obtains actinium-225 from various sources such as the U.S. Department of Energy at Oak Ridge National Laboratories and has developed considerable know-how, expertise and validated processes related to production of Actinium Radio-Conjugates (ARC's), management of the supply chain and dealing with various regulatory bodies. The AWE Technology Platform can be utilized to potentially improve the cell-killing power of targeting agents such as antibodies, peptides, Fab fragments, nanobodies etc. via labeling with Actinium-225. In addition to increased efficacy, these Actinium-225 enhanced targeting

agents can offer optimized dosing or administration and in the case of approved targeting agents provide an opportunity to extend intellectual property protection by the creation of biobetters or improved versions of the approved agent. The Company's Actinium Warhead Enabling (AWE) Program can be accessed by biopharmaceutical companies that are interested in creating biobetters through the utilization of the AWE Platform Technology. To learn more about the AWE Technology Platform or the AWE Program please contact Keisha Thomas, Ph.D., Corporate Development at kthomas@actiniumpharma.com.

About Actinium Pharmaceuticals, Inc.

Actinium Pharmaceuticals Inc. is a clinical-stage biopharmaceutical company focused on developing and commercializing targeted therapies for potentially superior myeloablation and conditioning of the bone marrow prior to a bone marrow transplant and for the targeting and killing of cancer cells. Our targeted therapies have demonstrated the potential to result in significantly improved access to bone marrow transplant with better outcomes, namely increased marrow engraftment and survival. Our targeted therapies are ARC's or Antibody Radio-Conjugates that combine the targeting ability of monoclonal antibodies with the cell killing ability of radioisotopes. We have four clinical trials based on our AWE or Actinium Warhead Enabling Technology Platform that utilizes the isotope actinium-225 (Ac^{225}) which emits alpha particles. In addition, our most advanced product candidate, lomab-B, an ARC developed by the Fred Hutchinson Cancer Research Center, is comprised of an anti-CD45 monoclonal antibody labeled with iodine-131. We are currently conducting a pivotal Phase 3 trial of lomab-B for myeloablation and conditioning of the bone marrow prior to a bone marrow transplant for patients with relapsed or refractory acute myeloid leukemia (AML) age 55 and older. A bone marrow transplant is a potentially curative treatment for patients with AML and other blood cancers including leukemias, lymphomas and multiple myeloma as well as certain blood disorders. lomab-B has been tested in several of these other cancers with over five hundred patients treated in several Phase 1 and 2 trials with promising results. Upon successful completion of our Phase 3 clinical trial for lomab-B we intend to submit this candidate for marketing approval in the U.S. and European Union where it has been designated as an Orphan Drug. We are also developing a potentially best in class CD33 program using an ARC comprised of the anti-CD33 monoclonal antibody lintuzumab labeled with the alpha-particle emitter actinium-225. Our most advanced CD33 program candidate, Actimab-A, is currently in a Phase 2 clinical trial for patients advanced over the age of 60 who are newly diagnosed with AML and ineligible for standard induction chemotherapy. Actimab-A also has Orphan Drug designation in the US and EU. Actimab-M, our second CD33 program ARC, is being studied in a Phase 1 trial for patients with refractory multiple myeloma. Actinium is also planning a Phase 2 trial for Actimab-MDS, our third CD33 program candidate, as a conditioning regimen prior to a bone marrow transplant for patients with MDS that have a p53 genetic mutation. Our Phase 1 trial studying Actimab-A with CLAG-M is our fourth CD33 program clinical trial for patients with relapsed or refractory AML. Our AWE or Actinium Warhead Enabling Technology Platform, originally developed in conjunction with Memorial Sloan Kettering Cancer Center, is focused on leveraging Actinium's know how and intellectual property to create additional ARC drug candidates by labeling Ac^{225} to targeting moieties that we will either progress in clinical trials ourselves or out-license.

More information is available at www.actiniumpharma.com and our Twitter feed @ActiniumPharma, 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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Source: Actinium Pharmaceuticals