February 1, 2018

Actinium Pharmaceuticals Announces Acceptance of Abstract for AACR Annual Meeting Highlighting Superior In Vivo Survival Data for Actinium Labelled Daratumumab Versus Unlabeled Daratumumab, A Blockbuster Product

- Poster to present additional data showcasing ability of Actinium's AWE Technology to yield a potential biobetter of daratumumab, a blockbuster CD38 targeted therapy for multiple myeloma

NEW YORK, Feb. 01, 2018 (GLOBE NEWSWIRE) -- **Actinium Pharmaceuticals, Inc.** (NYSE American:ATNM) **("Actinium" or "the Company")** announced today that its abstract has been accepted for a poster presentation at the 2018 American Association for Cancer Research (AACR) Annual Meeting being held April 14-18, 2018 in Chicago, Illinois. The abstract showcases the potential of Actinium's AWE Technology Platform, specifically, the ability of actinium-225 to enhance the in vivo efficacy of daratumumab, a CD38 targeting therapy that is marketed by Johnson & Johnson as Darzalex®.

Per the abstract submission highlighted below, 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 available at the time of the Annual Meeting. The Company had earlier presented initial in vitro data at ASH which studied the effect of Actinium-225 labeled daratumumab on DAUDI, 28BM and 28PE cell lines at the 48, 72 and 96 hour time points as well as U226, a cell line that does not express CD38. The results showed that when daratumumab is labeled with Actinium-225, cell death was increased as much as ten-fold, approaching one-hundred percent cell death in certain cell lines and at certain time points, and in all three cell lines tested the Actinium-225 labeled daratumumab had higher cell death compared to naked daratumumab. In addition, immunogenicity was preserved with most or all of daratumumab's CD38 targeting ability maintained, high rates of radioisotope labeling of the antibody from 82-85% was demonstrated, as was high rates of stability from 73-87% at various temperatures forty-eight hours post labeling.

Details on the poster are as follows:

Title: Conjugation of daratumumab with ^{225}actinium greatly increases its antitumor activity against multiple myeloma tumors
Abstract Number: 760

Session Category: Experimental and Molecular Therapeutics

Sandesh Seth, Actinium's Chairman and Chief Executive Officer said, "We are excited to build upon the already exciting data from our AWE Program and are looking forward to presenting new data from our continued efforts. The data we will present will exemplify Actinium's expanding R&D capabilities and the potential of our AWE technology platform, which are now being spearheaded by our new Chief Scientific Officer, Dr. Dale Ludwig. This is the first AACR that Actinium has presented data at and we look forward to a growing and impactful presence as we are committed to continuing to leverage our AWE technology and extending our capabilities both on behalf of our internal efforts but also for partners"

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. Despite this 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 Actinium

Radio-Conjugates that combine the targeting ability of monoclonal antibodies with the cell killing ability of radioisotopes. Three of our four ARC drug candidates are based on our AWE or Actinium Warhead Enabling Technology Platform that utilizes the isotope Actinium-225 (Ac-225) which emits alpha particles. We are currently conducting clinical trials for our four product candidates; Iomab-B, Actimab-A Actimab-M and Actimab-MDS, as well as performing research on other potential drug candidates utilizing our proprietary AWE Technology Platform. Our most advanced product candidate, Iomab-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 Iomab-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. Iomab-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 Iomab-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 Ac-225. Our most 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 targeting 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 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.

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