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Actinium Doses the First Patient in the Fourth, Final Cohort of Its Actimab-A Trial

Last Actimab-A Cohort in the Phase 1 Portion of the Phase 1/2 Trial Begins

NEW YORK, NY -- (Marketwired) -- 04/15/15 -- Actinium Pharmaceuticals, Inc. (NYSE MKT: ATNM) ("Actinium" or "the Company"), a biopharmaceutical Company developing innovative targeted payload immunotherapeutics for the treatment of advanced cancers, announced that the first patient was successfully treated with Actimab-A drug candidate in the fourth and last cohort of the ongoing Phase 1/2 trial of Actimab-A. Actimab-A is being developed for newly diagnosed AML patients over the age of 60 ineligible for standard induction chemotherapy.

Patients in this last cohort are being treated at 2.0 $\mu\text{Ci}/\text{kg}$ per dose of Actimab-A. To date, three cohorts of patients have been treated at dose levels of 0.5, 1.0 and 1.5 $\mu\text{Ci}/\text{kg}$ per fractionated dose, respectively. The treatment consists of two fractionated doses one week apart following cytoreduction with low dose cytarabine. Maximum tolerated dose (MTD) has not been reached yet and there was no peri-induction mortality among these high risk patients. However, dose dependent responses have been observed.

In the previously completed third cohort in which patients received two doses of Actimab-A at 1.5 $\mu\text{Ci}/\text{kg}$ per dose, two out of three Actimab-A treated patients achieved complete remission with different degrees of hematological recovery (CRi). "We are now moving towards completion of the Phase 1 portion of the trial," said Dr. Kaushik Dave, the President and CEO of Actinium Pharmaceuticals. "The fact that at these late stages of the dose escalating trial we have confirmed an exemplary safety profile while already observing clinical responses and survival benefit is very encouraging."

In this Phase 1/2 trial design, maximum tolerated dose will automatically become the Phase 2 portion dose.

About Actimab-A

Actimab-A, Actinium's most advanced alpha particle immunotherapy program is continuing its clinical development in a Phase 1/2 trial for newly diagnosed AML patients over the age of 60 in a single arm multicenter trial. Actimab-A is being developed as a first line therapy and has attracted support from some of the leading experts at the most prestigious cancer treatment hospitals due to the potential of its safety and efficacy profile.

Actimab-A consists of the Lintuzumab monoclonal antibody and actinium 225. Actinium-225 decays by giving off high-energy alpha particles, which kill cancer cells. When actinium decays, it produces a series of daughter atoms, each of which gives off its own alpha

particle, increasing the chances that the cancer cell will be destroyed. Lintuzumab is the humanized version of M195 and is a monoclonal antibody that targets CD33, found on myeloid leukemia cells. Both the alpha particle technology and lintuzumab were initially developed at Memorial Sloan Kettering Cancer Center.

About lomab-B

lomab-B™ is being developed to prepare patients for hematopoietic stem cell transplantation (HSCT) and will enter a single, pivotal Phase 3 clinical study in relapsed/refractory AML. lomab-B is a radioimmunoconjugate consisting of BC8, a novel murine monoclonal antibody, and iodine-131 radioisotope. BC8 has been developed by Fred Hutchinson Cancer Research Center to target CD45, a pan-leukocytic antigen widely expressed on white blood cells. This antigen makes BC8 potentially useful in targeting white blood cells in preparation for hematopoietic stem cell transplantation in a number of blood cancer indications, including acute myeloid leukemia (AML), chronic myeloid leukemia (CML), acute lymphoblastic leukemia (ALL), chronic lymphocytic leukemia (CLL), Hodgkin's disease (HD), Non-Hodgkin lymphomas (NHL) and multiple myeloma (MM).

About Actinium Pharmaceuticals

Actinium Pharmaceuticals, Inc. (www.actiniumpharma.com) is a New York-based biopharmaceutical company developing innovative targeted payload immunotherapeutics for the treatment of advanced cancers. Actinium's targeted radiotherapy products are based on its proprietary delivery platform for the therapeutic utilization of alpha-emitting actinium-225 and bismuth-213 and certain beta emitting radiopharmaceuticals in conjunction with monoclonal antibodies. The Company's lead radiopharmaceutical product candidate lomab-B is designed to be used, upon approval, in preparing patients for hematopoietic stem cell transplant, commonly referred to as bone marrow transplant. The Company plans to conduct a single, pivotal, multicenter Phase 3 clinical study of lomab-B in refractory and relapsed AML patients over the age of 55 with a primary endpoint of durable complete remission. The Company's second product candidate, Actimab-A, is continuing its clinical development in a Phase 1/2 trial for newly diagnosed AML patients over the age of 60 in a single-arm multicenter trial.

Forward-Looking Statement for Actinium Pharmaceuticals, Inc.

This news release contains "forward-looking statements" as defined in the Private Securities Litigation Reform Act of 1995. These statements are based on management's current expectations and involve risks and uncertainties, which may cause actual results to differ materially from those set forth in the statements. The forward-looking statements may include statements regarding product development, product potential, or financial performance. No forward-looking statement can be guaranteed and actual results may differ materially from those projected. Actinium Pharmaceuticals undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events, or otherwise.

Contact:

David Gould, MD
SVP, Finance and Corporate Development

Actinium Pharmaceuticals, Inc.
dgould@actiniumpharma.com

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