October 13, 2025

Actinium to Present ATNM-400 Preclinical Data Highlighting Durable Tumor Control and Ability to Overcome Resistance to Standard-of-Care Prostate Cancer Therapies at the 32nd Annual Prostate Cancer Foundation Scientific Retreat

- ATNM-400 targets a highly differentiated, non-PSMA antigen associated with the development and progression of prostate cancer, exhibiting potent therapeutic activity independent of PSMA expression levels

- Extended follow-up in prostate cancer models demonstrated durable anti-tumor responses with ATNM-400, exceeding those achieved with the androgen receptor pathway inhibitor (ARPI), enzalutamide

NEW YORK, Oct. 13, 2025 /PRNewswire/ -- **Actinium Pharmaceuticals, Inc.** (NYSE AMERICAN: ATNM) (Actinium or the Company), a pioneer in the development of differentiated targeted radiotherapies, today announced that compelling preclinical data for ATNM-400, its novel, first-in-class antibody radioconjugate armed with the potent alpha-emitter Actinium-225 (Ac-225), has been accepted for presentation at the 32nd Annual Prostate Cancer Foundation (PCF) Scientific Retreat being held on October 23 – 25, 2025 in Carlsbad, CA. The presentation will highlight ATNM-400's ability to induce robust, durable anti-tumor activity in metastatic castration-resistant prostate cancer (mCRPC) models, including tumors resistant to standard-of-care therapies such as the androgen receptor pathway inhibitor (ARPI), enzalutamide (Xtandi®, Astellas/Pfizer) and the PSMA-targeted therapy, 177Lu-PSMA-617 (active agent in Pluvicto®, Novartis) as well as superior efficacy compared to 225Ac-PSMA-617.

ATNM-400 PCF Presentation Information

Title: ATNM-400, a first-in-class Actinium-225 antibody radioconjugate, demonstrates potent

anti-tumor activity and overcomes resistance to enzalutamide and 177Lu-PSMA-617 in prostate cancer models

Poster Session Date and Time: Thursday, October 23, 2025, 7:30 – 10:30 PM P.T.

Following the PCF presentation, the ATNM-400 poster will be available for viewing online on Actinium's investor relations page HERE.

Addressing Critical Unmet Needs in mCRPC

Prostate cancer patients who progress to mCRPC face limited treatment options. While ARPI therapies like enzalutamide and PSMA-targeted radiotherapies like Pluvicto® have extended survival, resistance and disease progression remain major challenges.

ATNM-400 directly addresses this unmet need by targeting a distinct, non-PSMA tumor antigen strongly linked to treatment resistance, rapid disease progression, and poor survival outcomes in prostate cancer. Leveraging a high-affinity antibody against the novel target, combined with the potent cell-killing power of alpha radiation via the Ac-225 isotope payload, ATNM-400 offers a mechanistically differentiated approach beyond current PSMA-directed therapies. The target antigen of ATNM-400 is overexpressed following ARPI therapy and is associated with a shorter time to castration resistance. This positions ATNM-400 as a differentiated treatment option in the post-ARPI setting, where it has been shown to overcome enzalutamide resistance and enhance the efficacy of ARPI combinations. In preclinical models, synergy with enzalutamide resulted in robust, durable tumor control and significantly improved overall survival. This innovative strategy aims to overcome limitations of current treatments and provide new hope for patients facing advanced prostate cancer.

"ATNM-400's ability to maintain anti-tumor activity in both PSMA-expressing and PSMA-resistant models, while also synergizing with ARPI therapy, underscores its potential as a differentiated, next-generation alpha therapy for prostate cancer," said Sandesh Seth, Chairman and Chief Executive Officer, Actinium Pharmaceuticals, Inc. "We look forward to highlighting ATNM-400 at PCF and engaging with prostate cancer KOLs as we work to further advance ATNM-400."

About ATNM-400

ATNM-400 is a novel, first-in-class Ac-225 antibody radioconjugate targeting a distinct non-PSMA protein strongly implicated in prostate cancer progression and treatment resistance. Unlike 177Lu-PSMA-617, the active agent in Pluvicto® and the majority of radiotherapies under development, which rely on PSMA targeting, ATNM-400 is designed to maintain efficacy in PSMA-low or PSMA-resistant disease, a major unmet clinical need. Ac-225 delivers high-linear-energy-transfer alpha particles that induce irreparable double-strand DNA breaks, offering superior potency over beta emitters like Lutetium-177 (177Lu), and has a shorter tissue path length that may reduce off-target toxicity. Additionally, the antigen specifically targeted by ATNM-400 continues to be expressed at a high level even after androgen receptor inhibitor (ARPI) therapy and ATNM-400 has shown to overcome resistance to the ARPI therapy enzalutamide and work synergistically in combination with enhanced tumor control including complete tumor regression.

Prostate cancer is the most diagnosed cancer in men, with ~1.5 million new cases globally

and over 313,000 expected in the U.S. in 2025. While early-stage disease is typically managed with surgery, radiation, and ARPI therapy, up to 20% of cases progress to mCRPC - a lethal stage with limited treatment options. Targeted radiotherapy is a growing field in prostate cancer, dominated by PSMA-targeting agents like Pluvicto®, which had sales of over $1.3 billion in 2024, yet many patients either lack PSMA expression and do not respond or develop resistance to Pluvicto®. In the U.S., 40,000 – 60,000 mCRPC patients annually progress after ARPI therapy, which as a class had sales of over $10.0 billion in 2024 including enzalutamide (Xtandi®) which led the ARPI class with sales of over $5.9 billion in 2024, highlighting a significant unmet need. Actinium intends to evaluate ATNM-400 in other solid tumor indications beyond prostate cancer.

About Actinium Pharmaceuticals, Inc.

Actinium is a pioneer in the development of differentiated targeted radiotherapies intended to meaningfully improve patient outcomes. ATNM-400, Actinium's lead product candidate, is a novel, first-in-class, non-PSMA targeting Ac-225 radiotherapy for prostate cancer and potentially other solid tumor indications. The receptor specifically targeted by ATNM-400 is highly expressed in metastatic castration-resistant prostate cancer (mCRPC), contributes directly to disease progression, poorer survival outcomes, and continues to be expressed at a high level even after androgen receptor inhibitor (ARPI) and Pluvicto® treatment. ATNM-400 is supported by preclinical data demonstrating tumor-specific uptake, higher efficacy than androgen receptor inhibitor enzalutamide (Xtandi®) and 177Lu-PSMA-617 radiotherapy, the active agent in Pluvicto®, durable tumor control and potent efficacy in prostate cancer models resistant to both enzalutamide and 177Lu-PSMA-617. In addition, ATNM-400 has demonstrated synergy with enzalutamide. The data generated to date with ATNM-400 supports its potential to be used either as a monotherapy, or in combination or sequenced with other therapies. Actinium's most advanced product candidate in development is Actimab-A, a CD33 targeting therapeutic, that is a potential backbone therapy for acute myeloid leukemia (AML) and other myeloid malignancies leveraging the mutation agnostic alpha-emitter radioisotope payload Actinium-225 (Ac-225). Actimab-A has demonstrated potential activity in relapsed and refractory acute myeloid leukemia (r/r AML) patients in combination with the chemotherapy CLAG-M including high rates of Complete Remissions (CR) and measurable residual disease (MRD) negativity leading to improved survival outcomes and is being advanced to a Phase 2/3 trial in alignment with the FDA. In addition, Actinium is engaged with the National Cancer Institute (NCI) under a Cooperative Research and Development Agreement (CRADA) for development of Actimab-A in AML and other myeloid malignancies. The first clinical trial under the CRADA will evaluate the triplet combination comprised of Actimab-A, Venetoclax (Abbvie/Roche) an oral Bcl-2 inhibitor and ASTX-727 (Taiho Oncology, an Otsuka holdings company) a novel oral hypomethylating agent (HMA) in frontline acute myeloid leukemia (AML) patients. Additionally, Actinium is developing Actimab-A as a potential pan tumor therapy in combination with PD-1 checkpoint inhibitors including KEYTRUDA® and OPDIVO® by depleting myeloid derived suppressor cells (MDSCs), which represents a potential multi-billion-dollar addressable market. Iomab-ACT, Actinium's next generation conditioning candidate, is being developed with the goal of improving patient access and outcomes for potentially curative cell and gene therapies. Iomab-B is an induction and conditioning agent prior to bone marrow transplant in patients with r/r AML, for which Actinium is seeking a potential strategic partner for the U.S. for a Phase 2/3 trial that Actinium has aligned with the FDA on and received authorization to

initiate the Phase 2 portion of this trial. The company's R&D efforts are primarily focused on advancing several preclinical programs for solid tumor indications. Actinium holds approximately 240 patents and patent applications including several patents related to the manufacture of the isotope Ac-225 in a cyclotron.

For more information, please visit: https://www.actiniumpharma.com/

Forward-Looking Statements

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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