June 23, 2025

Actinium Highlights Expanded Data Set for ATNM-400 in Prostate Cancer Demonstrating Superior Efficacy to Enzalutamide and Ability to Overcome Resistance to ARPI Therapy and PSMA-Ac-225/Lu-177 Labelled Radiotherapy at the Society of Nuclear Medicine & Molecular Imaging Annual Meeting

- ATNM-400 shows; superior prostate cancer cell killing compared to androgen receptor inhibitor Xtandi® (enzalutamide), the ability to overcome Xtandi resistance, and activity in combination

- ATNM-400 is more efficacious than both Pluvicto® (177-Lu-PSMA-617) and Ac-225-PSMA-617 targeted radiotherapy in prostate cancer in vitro and in vivo models and overcome resistance in prostate cancer tumors that failed Pluvicto® therapy

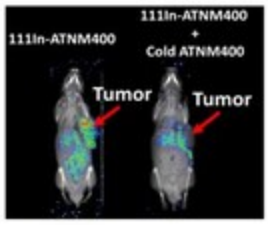
- ATNM-400's target is highly differentiated from PSMA as it is implicated in disease biology, contributing to disease progression, faster progression to castration resistance and poorer survival outcomes with target expression reported following androgen receptor inhibitor and PSMA radiotherapy

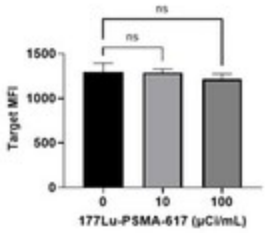
- Data further supports ATNM-400's potential to address critical gaps in prostate cancer treatment as a monotherapy or in sequence with other therapeutic modalities

NEW YORK, June 23, 2025 /PRNewswire/ -- **Actinium Pharmaceuticals, Inc.** (NYSE AMERICAN: ATNM) (Actinium or the Company), a pioneer in the development of targeted radiotherapies, today reported new preclinical data from its first-in-class, non-PSMA targeting radiotherapy prostate cancer candidate ATNM-400, that leverages the potent alpha-particle emitter Actinium-225 (Ac-225) isotope, at the Society of Nuclear Medicine & Molecular Imaging (SNMMI) annual meeting being held June 21st – 24th, 2025, in New Orleans, Louisiana. The data presented at SNMMI showed ATNM-400 has superior potency compared Xtandi® (enzalutamide) and is highly efficacious in Xtandi® resistant prostate models. Xtandi is an androgen receptor inhibitor (ARPI) therapy developed and marketed by Astellas and Pfizer that is approved for three stages of prostate cancer and generated sales

of $5.9 billion in 2024. Actinium also presented additional new data showing ATNM-400 is more efficacious than PSMA-617 labeled with both Lutetium-177 (Lu-177) and Ac-225 and that ATNM-400 also overcomes resistance to Pluvicto® (Lu-177-PSMA-617). Pluvicto® is developed and marketed by Novartis and generated sales of $1.4 billion in 2024. ATNM-400 represents a transformational therapeutic candidate being developed to overcome limitations of current prostate cancer therapies such as Xtandi® and Pluvicto® and improve outcomes over what is currently achievable. Key data and highlights from the ATNM-400 SNMMI presentation include:

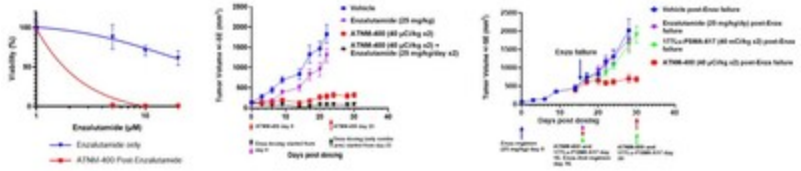
ATNM-400 Target Expression Profile and Disease Biology





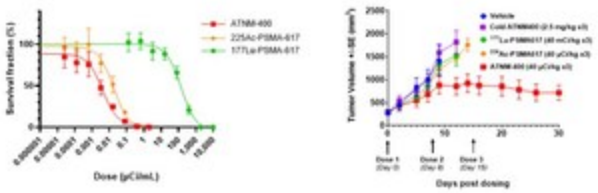
- The ATNM-400 target is implicated in prostate cancer disease biology and contributes directly to disease progression, with expression correlating with shorter time to castration resistance and poorer survival in castrate resistant prostate cancer (CRPC) patients making it differentiated from PSMA, which serves primarily as a surface marker
- The target for ATNM-400 is also reported to be elevated in prostate cancer patients who develop resistance to the ARPI therapy Xtandi®
- ATNM-400 shows consistent tumor uptake, rapid clearance from the blood and clearance from vital organs including intestines, liver, and kidneys
- Target expression is retained post Pluvicto® treatment in prostate cancer models

ATNM-400 Compared to Xtandi® (enzalutamide)



- ATNM-400 exhibited potent killing of all Xtandi® resistant prostate cancer cells that remained following treatment with Xtandi®, with Xtandi® only killing 50% of the resistant prostate cancer cells
- ATNM-400 monotherapy and in combination with Xtandi® had superior anti-tumor efficacy in vivo compared to Xtandi alone in a prostate cancer model; all treatments were well-tolerated with no change in body weight
- ATNM-400 inhibited tumor growth of Xtandi® resistant tumors whereas re-treatment with Pluvicto® or additional enzalutamide did not

ATNM-400 Compared to PSMA targeted Radiotherapy



- ATNM-400 was more potent than both Pluvicto® (177Lu-PSMA-617) and 225Ac-PSMA-617 in prostate cancer cell killing
- At therapeutically relevant doses, ATNM-400 exhibited more efficacious tumor growth inhibition compared to both Pluvicto® and 225Ac-PSMA-617 in prostate cancer in vivo model
- As previously reported, ATNM-400 was able to overcome Pluvicto® resistance, halting tumor growth in prostate cancer tumors that failed Pluvicto therapy and producing potent tumor cell killing

Sandesh Seth, Actinium's Chairman and CEO, said, "We are committed to advancing ATNM-400 to address the high unmet needs that remain in prostate cancer. These new data presented at SNMMI demonstrate the therapeutic potential of ATNM-400 as both a monotherapy and in combination with both androgen receptor inhibitors and PSMA radiotherapy, two leading prostate cancer treatment modalities. With ATNM-400's target being a disease-driving protein involved in tumor progression and therapeutic resistance combined with the potency and precision of the Ac-225 isotope payload, we believe ATNM-400 has a transformational profile rooted in prostate cancer disease biology, which is strongly supported by our data. We are thrilled to highlight ATNM-400's first-in-class data at SNMMI and highly encouraged by the strong interest from KOL's across the prostate cancer and nuclear medicine communities. As Actinium continues to advance our efforts with novel targeted radiotherapies, ATNM-400 is the ideal cornerstone of our emerging solid tumor pipeline."

The ATNM-400 SNMII presentation is available for viewing on the Presentations & Webinars page of Actinium's website HERE.

Title: First-in-class antibody radioconjugate ATNM-400 exhibits potent anti-tumor activity and overcomes resistance to enzalutamide and 177Lu-PSMA-617 in prostate cancer models

About ATNM-400

ATNM-400 is a highly innovative, first-in-class prostate cancer candidate in comparison to Pluvicto and the majority of radiotherapies in development for prostate cancer which target PSMA and are either non-differentiated or barely differentiated, as it targets a distinct non-PSMA receptor. The receptor specifically targeted by ATNM-400 is highly expressed in metastatic castration-resistant prostate cancer (mCRPC), contributes directly to disease progression and poorer survival outcomes, and continues to be expressed at a high level even after androgen receptor inhibitor and Pluvicto treatment. ATNM-400 leverages the alpha-particle emitter Ac-225, which is more potent than Lu-177, can cause lethal irreversible double-stranded DNA breaks, and has a shorter path length that could result in fewer off-target effects.

About Actinium Pharmaceuticals, Inc.

Actinium is a pioneer in the development of targeted radiotherapies intended to meaningfully improve patient outcomes. Actinium is advancing its lead product candidate Actimab-A, a CD33 targeting therapeutic, as potential backbone therapy in 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 pivotal Phase 2/3 trial. In addition, Actinium is engaged with the National Cancer Institute (NCI) under the 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. ATNM-400 is Actinium's novel non-PSMA targeting Ac-225 radiotherapy for prostate cancer, which is supported by preclinical data demonstrating higher efficacy than Xtandi (androgen receptor inhibitor) and Pluvicto (PSMA-617-Lutetium-177) and potent efficacy in prostate cancer models resistant to both therapies. 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, which Actinium is seeking a potential strategic partner for the U.S. In addition, the company's R&D efforts are primarily focused on advancing several preclinical programs for solid tumor indications. Actinium holds 230 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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