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Actinium Pharmaceuticals, Inc. and AVEO Oncology Enter Research Collaboration Agreement to Develop First-in-Class Actinium-225 ErbB3 Targeting Radiotherapy for Solid Tumors

- Actinium to apply its proprietary Antibody Warhead Enabling (AWE) technology platform to perform conjugation of AVEO's ErbB3 targeted antibody with Actinium-225, a potent alpha-emitting radioisotope, to form a novel Ac-225 ErbB3 targeted radiotherapy

- ErbB3, also known as HER3, is overexpressed in several solid tumor indications with high unmet needs, including colorectal, gastric, head and neck, breast, ovarian, melanoma, prostate and bladder cancers

NEW YORK and BOSTON, Feb. 22, 2022 /PRNewswire/ --**Actinium Pharmaceuticals, Inc.** (NYSE AMERICAN: ATNM) ("Actinium" or the "Company"), a leader in the development of targeted radiotherapies and **AVEO Oncology** (NASDAQ: AVEO) ("AVEO"), a commercial stage, oncology-focused biopharmaceutical company, today announced that they have entered into a research collaboration to develop and study a first-in-class antibody radio-conjugate (ARC) targeting ErbB3, also known as HER3. Actinium will utilize its AWE technology platform and extensive radiotherapy know-how to conjugate one of AVEO's ErbB3 targeted antibodies, with the potent alpha-emitting radioisotope Actinium-225 (Ac-225).

"Actinium has amassed extensive clinical experience, technical know-how and research capabilities for the development of next-generation targeted radiotherapies that we are excited to bring to this collaboration with AVEO, which has a portfolio of high-affinity antibodies and is currently commercializing FOTIVDA (tivozanib) in advanced RCC. We believe ErbB3 is a validated and differentiated target that is aptly suited for radio-conjugate development. Using our AWE platform, we will harness the powerful Ac-225 payload to enhance targeted cell killing against a target that is overexpressed in a number of cancers

that are difficult to treat with traditional oncology therapies. A member of the epidermal growth factor family of receptors, ErbB3 has been gaining increasing recognition as a validated targeted, we are committed to rapidly advance and evaluate this novel Ac-225 ErbB3 targeted radiotherapy together with AVEO," said Sandesh Seth, Chairman and CEO of Actinium.

"While we focus on the commercialization of FOTIVDA in advanced RCC,, we are pleased to announce this collaboration with Actinium in an effort to leverage our high-affinity antibody program to expand our robust portfolio with a potential first-in-class targeted radiotherapy ," said Michael Bailey, president and chief executive officer of AVEO. "We are excited to advance this ErbB3 targeted compound which is expressed in multiple solid tumors and is the third in the family of clinically validated ErbB targets."

Actinium's AWE technology platform has created a Ac-225 CD38 targeting ARC using the blockbuster myeloma antibody daratumumab (Darzalex®), in collaboration with EpicentRx for targeted radiotherapy CD47-SIRPα immunotherapy combinations and in collaboration with Astellas Pharma, to create theranostics for solid tumors. Actinium employs a multidisciplinary approach leveraging its team's expertise and experience in cancer cell biology, radiochemistry, radiation sciences, immunology and oncology drug development to R&D and collaborations.

AVEO's ErbB3 targeting antibodies are designed to inhibit both ligand-dependent and ligand-independent ErbB3 signaling. ErbB3 is a receptor that is typically expressed in many human cancers and has demonstrated preclinical activity in multiple tumor models.

About Actinium Pharmaceuticals, Inc.

Actinium Pharmaceuticals, Inc. is a clinical-stage biopharmaceutical company developing targeted radiotherapies to deliver cancer-killing radiation with cellular level precision to treat patients with high unmet needs not addressed by traditional cancer therapies. Actinium's current clinical pipeline is led by ARCs or Antibody Radiation-Conjugates that are being applied to targeted conditioning, which is intended to selectively deplete a patient's disease or cancer cells and certain immune cells prior to a BMT or Bone Marrow Transplant, Gene Therapy or Adoptive Cell Therapy (ACT) such as CAR-T to enable engraftment of these transplanted cells with minimal toxicities. Actinium's targeted conditioning ARCs seek to improve patient outcomes and access to these potentially curative treatments by eliminating or reducing the non-targeted chemotherapy that is used for conditioning in standard practice currently. Our lead product candidate, I-131 apamistamab (Iomab-B) has been studied in several hundred patients including in the recently completed, 150-patient, pivotal Phase 3 Study of Iomab-B in Elderly Relapsed or Refractory Acute Myeloid Leukemia (SIERRA) trial for BMT conditioning. Iomab-ACT, low dose I-131 apamistamab is being studied as a targeted conditioning agent in a Phase 1 study with a CD19 CAR T-cell Therapy with Memorial Sloan Kettering Cancer Center. In addition, we are leaders in the field of Actinium-225 alpha therapies. Actimab-A, our clinical stage CD33 targeting ARC alpha therapy has been studied in nearly 150 patients including our ongoing combination trials with the salvage chemotherapy CLAG-M and the Bcl-2 targeted therapy venetoclax. Underpinning our clinical programs is our proprietary AWE (Antibody Warhead Enabling) technology platform. This is where our intellectual property portfolio of over 160 patents, know-how, collective research and expertise in the field are being leveraged to construct and study novel ARCs and ARC combinations such as with CD47 immunotherapies to bolster our pipeline for

strategic purposes. Our AWE technology platform is currently being utilized in a collaborative research partnership with Astellas Pharma, Inc. Website: https://www.actiniumpharma.com/

About AVEO Oncology

AVEO is a commercial-stage, oncology-focused biopharmaceutical company committed to delivering medicines that provide a better life for patients with cancer. AVEO currently markets FOTIVDA® (tivozanib) in the United States for the treatment of adult patients with relapsed or refractory renal cell carcinoma (RCC) following two or more prior systemic therapies. AVEO continues to develop FOTIVDA in immuno-oncology combinations in RCC and other indications, and has other investigational programs in clinical development. AVEO is committed to creating an environment of diversity, equity and inclusion to diversify representation within the Company.

Forward-Looking Statements

This press release includes "forward-looking statements" of Actinium and AVEO within the meaning of the "safe-harbor" provisions of the Private Securities Litigation Reform Act of 1995 that involve substantial risks and uncertainties... All statements, other than statements of historical fact, contained in this press release are forward- looking statements. The words "anticipate," "believe," "design," "expect," "hope," "intend," "may," "plan," "potential," "could," "should," "would," "seek," "look forward," "advance," "goal," "strategy," or the negative of these terms or other similar expressions, are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. These statements include, among others, statements about: the potential efficacy, safety, tolerability and clinical utility of AVEO's ErbB3 targeting agent with Actinium-225 to form a novel Ac-225 ErbB3 targeted radiotherapy; the potential outcomes from the collaboration to provide Actinium and/or AVEO with opportunities to pursue further development and regulatory strategies; Actinium's strategy, prospects, plans and objectives for Actinium-225 and for Actinium generally; and AVEO's strategy, prospects, plans and objectives for its ErbB3 targeting agent and for AVEO generally. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements due to a number of important factors, including 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 and/or AVEO's products and services, performance of clinical research organizations and other risks detailed from time to time in Actinium's and AVEO's filings with the Securities and Exchange Commission (the "SEC"), including without limitation those risks discussed in the sections titled "Risk Factor Summary," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources" included in Actinium's and AVEO's 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. The forward- looking statements in this press release represent Actinium's and AVEO's views as of the date of this press release, and subsequent events and developments may cause its views to change. While Actinium and AVEO may elect to update these forward-looking statements at some point in the future, each of Actinium and AVEO specifically

disclaims any obligation to do so. You should, therefore, not rely on these forward-looking statements as representing Actinium's or AVEO's views as of any date other than the date of this press release.

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