
Actineer, a Joint Venture of ITM and CNL, Begins Actinium-225 Production

Successful Cyclotron Irradiation of Ra-226 Sets the Stage for Actineer's Large-Scale Ac-225 Production for Cancer Therapies

Chalk River, Ontario, October 17, 2024 – Actineer, the joint venture between ITM and Canadian Nuclear Laboratories (CNL) Ltd., has successfully produced Actinium-225 (Ac-225) by irradiating Radium-226 (Ra-226) in a cyclotron. This production milestone achievement will enable the joint venture to provide GMP-grade Ac-225 to customers by mid-2025, alongside the submission of a US Drug Master File (DMF).

"Actineer is proud to have reached this important milestone," said Ram Mullur, President of Actineer. "This achievement represents a critical step towards fulfilling our commitment to becoming a major global supplier of Ac-225. Together, we are dedicated to serving customers, the medical community, and, most importantly, patients who rely on Ac-225's potential to advance Targeted Alpha Therapy."

Actinium-225 serves as a vital precursor in the development of innovative cancer therapies. It is especially valuable for use in drug research and clinical trials focused on Targeted Alpha Therapy (TAT), where it is combined with molecules designed to seek out and bind to cancer cells. Once linked, the Ac-225 is delivered to the tumor, where it has the potential to treat various types of cancers by attacking cancerous cells while minimizing harm to nearby healthy tissues. Future drug products using Ac-225, once fully developed and approved, could offer powerful treatments that precisely target and destroy cancerous tissue with limited side effects.

"Actinium-225 represents a transformative opportunity in the realm of cancer treatment. As we look ahead, the global demand for Ac-225 is poised to rise sharply, driven by the urgent need for innovative therapies that can target hard-to-reach tumors and metastases." said Dr. Andrew Cavey, CEO, ITM and Actineer Board Chairman. "Actineer is leading the effort to deliver a stable and scalable supply of Ac-225 which is essential for advancing clinical trials and also for making life-saving treatments accessible to patients worldwide."

Alpha-emitters such as Ac-225 are known for emitting high-energy alpha particles with a short penetration range, enabling precise targeting of tumor cells. Preclinical studies of TATs have shown impressive results, with Ac-225 effectively breaking the DNA bonds of cancer cells, leading to their destruction.

Actineer is focused on expanding manufacturing capacity and increasing the supply of Ac-225, ensuring that patients worldwide will benefit from this promising isotope as a foundation for future cancer therapies.

About Actineer, Inc.

[Actineer™ Inc.](#) is a [joint venture company](#) between [Canadian Nuclear Laboratories \(CNL\)](#) and [ITM Isotope Technologies Munich SE \(ITM\)](#) dedicated to advancing Ac-225 technologies, quickly securing supply, and producing industrial-scale quantities of this valuable, rare medical radioisotope for the treatment of cancer. Founded in October 2023, Actineer™ Inc. together with its strong supply chain collaborators will progress Ac-225 development, production and processing technologies. It has established short-term production capabilities that is expected to lead to significantly boosting international supplies, while working long-term towards the construction of a new Actinium Production Facility (APF) in Canada. The joint venture's mission is to fulfil the unmet global manufacturing and production needs of this coveted radioisotope with significant potential in the fight against cancer.

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