

Defence Launches Accum Combined with Actinium-225 to Increase Efficacy and Safety of Radio-Immunoconjugate Cancer Therapies

Montreal, Quebec--(Newsfile Corp. - April 8, 2025) - Defence Therapeutics Inc. (CSE: DTC) (OTCQB: DTCFF) (FSE: DTC) ("**Defence**" or the "**Company**"), a Canadian biopharmaceutical company developing advanced cancer therapeutics and drug delivery technologies, is pleased to announce a collaboration with the Canadian Nuclear Laboratories ("CNL"). CNL, Canada's premier nuclear science facility, will conduct preclinical studies combining alpha-particle radiotherapy Actinium-225 ("Ac-225") with Defence's proprietary Accum[®] delivery technology.

Targeted radiotherapies using Ac-225 have shown great promise in cancer treatment. Ac-225 emits powerful alpha particles that irreparably damage cancer cells' DNA, leading to cell death. Ac-225 is typically attached to cancer-targeting antibodies. However, many of these Ac-225-antibody complexes become trapped in cellular compartments called endosomes, preventing them from reaching the cell's nucleus where they can be most effective. Defence's Accum[®] technology is designed to enhance the escape of these complexes from endosomes, improving their accumulation in the nucleus. This approach could reduce the required dosage levels of Ac-225, potentially minimizing side effects while maintaining therapeutic efficacy.

The Ac-225 will be produced and supplied by CNL, from its Th-229/Ac-225 generator at Chalk River Laboratories. CNL will evaluate several tumor-targeting antibodies modified with Accum[®] technology to transport Ac-225. Studies in rodent models will assess the biodistribution, therapeutic potency, and safety profile of these selected radiolabeled antibodies. The research aims to determine how effectively the Accum[®]-modified antibodies deliver Ac-225 to cancer cells and their impact on tumor growth. This collaboration marks a significant step in Defence's mission to revolutionize cancer treatment through enhanced targeted therapies. By combining CNL's expertise in Ac-225 radioisotope and R&D in Targeted Alpha Therapy with Defence's innovative delivery technology, the project seeks to overcome current limitations in radioisotope-based cancer treatments.

"We believe Accum[®] will significantly enhance the potency of Ac-225 immunoconjugates by improving therapeutic efficacy and tumor targeting. Our technology's ability to facilitate endosomal escape and increase the presence of therapeutics in cell nuclei enhances the effectiveness of alpha-particles at their primary target. Our team is confident this innovative approach will overcome current limitations in radioisotope delivery for oncology, amplifying anti-cancer effects while reducing off-target toxicity. The synergy between Accum[®] and CNL's expertise will advance precision oncology, leading to more effective and safer treatments," said Sébastien Plouffe, CEO and Founder of Defence Therapeutics.

As the project progresses, Defence will provide updates on the development of these Accum[®]-enhanced radioimmunoconjugates. With the global radiopharmaceutical market projected to reach USD 16.87 billion by 2033, Defence is well-positioned to contribute to this rapidly growing field of precision oncology.

<https://straitresearch.com/report/radiopharmaceutical-market>

About Defence:

Defence Therapeutics is a publicly-traded clinical-stage biotechnology company developing and engineering the next generation of radio-immuno-conjugate and ADC products using its proprietary platform in addition to novel immune-oncology vaccines. The core of Defence Therapeutics platform is the ACCUM[®] technology, which enables precision delivery of radio-immuno-conjugates or ADCs in their intact form to target cells, and vaccine antigens. As a result, increased efficacy and potency can be

reached against catastrophic illness such as cancer and infectious diseases.

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