

Defence's Delivery of Encapsulated AccuTOX(TM)-Chitosan Nanoparticles Triggers Complete Tumor Regression in Animals with Pre-Established Solid Lymphoma

Vancouver, British Columbia--(Newsfile Corp. - October 17, 2023) - Defence Therapeutics Inc. (CSE: DTC) ("**Defence**" or the "**Company**"), a Canadian biopharmaceutical company specialized in the development of immune-oncology vaccines and drug delivery technologies, is pleased to announce that systemic administration of novel AccuTOXTM-chitosan encapsulated formulation inhibits the growth of pre-established solid lymphoma resulting in their progressive shrinking over time.

The conducted study had two main objectives: i) to test whether AccuTOXTM can be delivered systemically if encapsulated in chitosan-based nanoparticles, and ii) to assess whether this modality can synergize with immune-checkpoint blockers commonly used in the oncology clinic. The formulation was delivered twice with a 2 weeks interval and treated animals were followed for up to 40 days. The tumors in animals treated with AccuTOXTM-Chitosan injections along with anti-PD-1 co-administration regressed and exhibited a prolonged survival rate.

"The AccuTOXTM molecule can be toxic if delivered unconjugated and/or systemically. The Defence team was able to bypass this limitation by encapsulating it into chitosan-based nanoparticles. This is a simpler and cheaper method compared to the use of antibodies, and may represent a key component of Defence's future encapsulation strategies," says Mr. Plouffe, CEO of Defence Therapeutics.

Chitosan is a linear [polysaccharide](#) composed of randomly distributed β -(1→4)-linked [D-glucosamine](#) (deacetylated unit) and [N-acetyl-D-glucosamine](#) (acetylated unit), and has a number of commercial and biomedical uses. In addition to its [agricultural](#) and industrial applications, chitosan is often useful in [bandages](#) to reduce bleeding and as an antibacterial agent. It can also be used to help deliver drugs through the skin. Therefore, exploiting it as a delivery vehicle for unconjugated Accum® or its variants could revolutionize the future of molecular medicine by increasing the compounds specificity to tumor site while minimizing the needed dosage and thus, associated side effects.

About Defence:

Defence Therapeutics is a publicly-traded biotechnology company working on engineering the next generation vaccines and ADC products using its proprietary platform. The core of Defence Therapeutics platform is the ACCUM® technology, which enables precision delivery of vaccine antigens or ADCs in their intact form to target cells. As a result, increased efficacy and potency can be reached against catastrophic illness such as cancer and infectious diseases.

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