

Breakthrough Results: Defence's Novel AccuTOX(TM) Intranasal Reduced 50% of Cancer Nodules on Animals with Lung Tumors

Vancouver, British Columbia--(Newsfile Corp. - December 20, 2022) - Defence Therapeutics Inc. (CSE: DTC) (FSE: DTC) (OTC Pink: DTCFF) ("**Defence**" or the "**Company**"), a Canadian biopharmaceutical company specialized in the development of immune-oncology vaccines and drug delivery technologies, just completed a pre-clinical study using its intranasal formulation of AccuTOX™ in the context of animals with pre-established lung cancer. The study shows that AccuTOX™ administration as a combination therapy with the immune-checkpoint inhibitor anti-PD1 reduces dramatically the level of lung nodules compared to control non-treated or anti-PD1-treated animals. This 50% reduction of cancer nodules on animals with pre-established lung tumors was achieved in a treatment plan of only 6 administrated doses over 2 weeks with the AccuTOX™ anti-PD1 combination.

AccuTOX™ as a pleiotropic anti-cancer treatment.

The AccuTOX™ molecule was originally designed to exhibit enhanced anti-tumoral properties compared to the original Accum™ molecule. In fact, the IC₅₀ of AccuTOX™ is 30-fold lower than that of Accum™ clearly demonstrating improved therapeutic potency as shown using a large set of murine and human tumors. This is also exemplified by the enhanced therapeutic potency of the compound when directly injected in solid tumors in combination with various immune-checkpoints (anti-PD-1, anti-CTLA4 and anti-CD47).

The sum of these results paved the path to test the compound in another animal model of pre-established lung cancer delivered via the intranasal route. For that purpose, a series of maximum tolerated dose (MTD) studies was conducted to identify the volume, dosage and tolerance of mice to repetitive administration of AccuTOX™. These studies show that AccuTOX™ is well tolerated up to 3 mg/kg (5-6 times lower than the injectable dose) with a regimen of 6 administrations over 2 weeks. When tested using this schedule on animals with lung tumors, AccuTOX™ decreased by over 50% the number of cancer nodules especially in the group combined with the anti-PD1 immune-checkpoint inhibitor.

"We are very pleased with the versatile use of AccuTOX™ as a cancer therapeutic. The compound has not only shown a great potential in treating solid tumors, but we have now data demonstrating that it can be further adapted and delivered via the intranasal route to treat lungs with metastatic tumors which is a new hope for lung cancer patients," says Mr. Plouffe, the CEO of Defence Therapeutics. "And this will open-up a completely new horizon for AccuTOX™ as an anti-cancer treatment," he adds. The global lung cancer therapeutics market size was estimated at USD 27.57 billion in 2021 and it is expected to surpass around USD 55.6 billion by 2030 with a registered CAGR of 8.11% from 2022 to 2030 according to Precedence Research.

<https://www.precedenceresearch.com/lung-cancer-therapeutics-market>

The AccuTOX™ program is one of Defence's most advanced immune-oncology programs. The Company is currently preparing for its FDA meeting to obtain approval for initiating a Phase I trial against solid tumors in 2023. By demonstrating great safety and tolerability profiles in patients, AccuTOX™ can become the next generation anti-cancer treatment for a wide range of indications.

Here is a link to a related video <https://www.youtube.com/watch?v=Kgd2fUGP3BU>

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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