

Defence Positioned to Begin Its Anti-Cancer AccuTOX(TM) Phase I Trial with Successful Completion of GLP Studies

Vancouver, British Columbia--(Newsfile Corp. - December 6, 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, is pleased to announce the successful completion of all GLP studies related to its anti-cancer AccuTOX™ molecule. The Company is planning to meet with the FDA in the weeks to come to obtain approval for launching its Phase I trial against solid tumors.

AccuTOX™: a fierce anti-cancer treatment.

In the past 16 months, Defence engineered a large library of Accum™ variants exhibiting differential effects on both immune and cancer cells. One of these lead molecules is AccuTOX™, a small compound capable of effectively killing a large set of murine and human tumors by inducing the production of reactive oxygen species, causing immunogenic cells death as well as triggering direct DNA damage akin to chemotherapeutic agents. Interestingly, AccuTOX™ administration synergises with different immune-checkpoints (anti-PD-1, anti-CTLA4 and anti-CD47) making it a highly mouldable molecule adaptable to a myriad of solid cancer indications. For instance, AccuTOX™ dosed at 16 mg/kg halts the growth of solid T-cell lymphoma, melanoma as well as breast cancer in mice with a survival rate of more than 90%. These results combined to the molecular characterization of AccuTOX™'s mechanism of action clearly highlight the anti-neoplastic potential of this molecule as a next generation treatment for various cancer types.

GLP studies in rodents revealed no adverse effects for AccuTOX™.

Building upon the impressive results obtained in different pre-clinical murine cancer models, a set of GLP studies was then conducted in male and female Sprague-Dawley rats to determine the toxicity potential and toxicokinetic profile of AccuTOX™ when administered through the sub-cutaneous route for 14 days (delivered every 48h for a total of 7 repetitive injections). Besides slight erythema/edema at the injection site, no clinical signs of morbidity or mortality were observed in both sexes using a dose as high as 30 mg/kg, which is twice as high as the therapeutic dose used in pre-clinical studies. Animals body weight, food consumption, coagulation and urine parameters were unaffected at all tested doses in both male and female rates. Hematological changes were considered minimal with no noticeable side effects to report. Furthermore, the time to reach peak plasma concentration (T_{max}) was ~1h in both genders. In conclusion, AccuTOX™ exhibits no adverse effects in rats and is well tolerated even at repetitive dosing of 30 mg/kg.

AccuTOX™ is safe and well tolerated in canines.

Upon completing the GLP study in rats, Defence followed up with a second set of GLP studies in Beagle dogs. In this case, higher AccuTOX™ doses were used (up to 100 mg/kg, which is 6.2-fold higher than the therapeutic dose used in mice). Although no clinical signs were observed up to 50 mg/kg, a very slight erythema was observed at the injection site following single dosing. Repetitive dosing, on the other hand, revealed very limited erythema and hardness at injection sites, which were considered of minimal impact. No mortalities were observed in male or female dogs up to 100 mg/kg and body weights of all treated animals were consistent despite a small decrease in food consumption. No apparent changes were noticed in the conducted electrocardiograms in both genders nor in their hematological, coagulation and urinalysis parameters. Chronic inflammation was apparent at the injection sites associated with mild leukocyte infiltration. The T_{max} for AccuTOX in dogs varied between 0.25 and 1h in both genders, with a detected $T_{1/2}$ of ~0.553h. In sum, AccuTOX™ is safe and well tolerated by Beagles

with limited local effects observed at injection sites.

A Phase I trial in the pipeline

"The AccuTOX™ program has greatly matured since its inception in mid-2021. The molecule is highly effective as an anti-cancer molecule and exhibits no toxic effects in different animal models (mice, rats and dogs). The fact that dogs can tolerate AccuTOX™ up to 100 mg/kg demonstrates a larger than expected therapeutic window for this treatment," says Mr. Plouffe, the CEO of Defence Therapeutics.

Defence is currently preparing to meet with the FDA in the up-coming weeks to present its pre-clinical and GLP studies to get approval for initiating a Phase I trial on a basket of solid tumors. The primary objective will be to demonstrate the safety and tolerability of the drug in cancer patients, while assessing some form of potency as secondary objective. Data Bridge Market Research analyses that the solid tumors market was valued at USD 209.61 billion in 2021 and is expected to reach USD 901.27 billion by 2029, registering a CAGR of 20.0% during the forecast period of 2022 to 2029.

<https://www.databridgemarketresearch.com/reports/global-solid-tumors-market>

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.

For further information:

Sebastien Plouffe, President, CEO and Director

P: (514) 947-2272

Splouffe@defencetherapeutics.com

www.defencetherapeutics.com

Cautionary Statement Regarding "Forward-Looking" Information

This release includes certain statements that may be deemed "forward-looking statements". All statements in this release, other than statements of historical facts, that address events or developments that the Company expects to occur, are forward-looking statements. Forward-looking statements are statements that are not historical facts and are generally, but not always, identified by the words "expects", "plans", "anticipates", "believes", "intends", "estimates", "projects", "potential" and similar expressions, or that events or conditions "will", "would", "may", "could" or "should" occur. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results may differ materially from those in the forward-looking statements. Factors that could cause the actual results to differ materially from those in forward-looking statements include regulatory actions, market prices, and continued availability of capital and financing, and general economic, market or business conditions. Investors are cautioned that any such statements are not guarantees of future performance and actual results or developments may differ materially from those projected in the forward-looking statements. Forward-looking statements are based on the beliefs, estimates and opinions of the Company's management on the date the statements are made. Except as required by applicable securities laws, the Company undertakes no obligation to update these forward-looking statements in the event that management's beliefs, estimates or opinions, or other factors, should change.

Neither the CSE nor its market regulator, as that term is defined in the policies of the CSE, accepts responsibility for the adequacy or accuracy of this release.



To view the source version of this press release, please visit <https://www.newsfilecorp.com/release/146823>