

Defence Breakthrough: Successfully Engineered Accum(TM)-mRNA Vaccine Creating a New Vaccine Platform. The *in vivo* Accum(TM)-mRNA Cancer Vaccine Program Begins

Vancouver, British Columbia--(Newsfile Corp. - April 10, 2023) - 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 that it successfully established a strategy conjugating mRNA molecules to AccumTM. The potency of this modified product will now be compared to "naked" mRNA administered as vaccines in immunocompetent mice.

The field of mRNA vaccination holds great promises over the use of other vaccination modalities. mRNA delivered to target cells makes them prone to harsh intracellular conditions such as the exhaustive acidity and enzymatic reactions found within endosomal lumens. As such, captured mRNA molecules may be destroyed before even reaching the cytoplasm where they are normally translated into proteins or long polypeptide chains. When tested in mice, administration of a "naked" mRNA molecule encoding for the ovalbumin protein triggered a weak to moderate antibody titers.

"Despite representing a promising technology, mRNA vaccines have not reached their full potential yet. By conjugating mRNA to AccumTM, we anticipate the immunogenicity of the vaccine to be enhanced resulting therefore in a powerful immune response," says Dr. Rafei, the VP research and development of Defence Therapeutics.

Defence has now completed its AccumTM-mRNA vaccine engineering and synthesis. The final product is stable, and an SOP has been finalized to be able to apply the same method to any chosen mRNA molecule.

"The Defence AccumTM-mRNA vaccine program is on schedule. With this engineering steps completed, we are now initiating *in vivo* studies to compare the immunogenicity of the vaccine. The potency of the AccumTM-mRNA vaccine will be tested in animals on cancer solid T-cell lymphoma first, then subsequently on additional cancer solid tumors", says Mr. Plouffe, CEO of Defence Therapeutics.

Defence plans to develop its own AccumTM-linked mRNA vaccines for different cancer indications. In parallel, the company is actively working on establishing partnerships with companies currently testing/developing mRNA vaccines for both immune-oncology and infectious disease indications.

The mRNA therapeutics market size is projected to surpass around USD 128.14 billion by 2030 and growing at a registered CAGR of 13.03% from 2022 to 2030 according to Precedence Research.

<https://www.precedenceresearch.com/mrna-therapeutics->

[market#:~:text=The%20mRNA%20therapeutics%20market%20size,forecast%20period%202022%20to%202030.](https://www.precedenceresearch.com/mrna-therapeutics-market#:~:text=The%20mRNA%20therapeutics%20market%20size,forecast%20period%202022%20to%202030.)

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 ACCUMTM 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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