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DEFENCE'S NOVEL ACCUMTM-mRNA VACCINE NOW ADMINISTERED FOR TESTING ON CANCER

Vancouver, BC, Canada, April 17th, 2023 - Defence Therapeutics Inc. (“**Defence**” or the “**Company**”), a Canadian biopharmaceutical company specialized in the development of immunoncology vaccines and drug delivery technologies, is pleased to announce that it commenced comparing the therapeutic potency of "naked" to AccumTM-linked mRNA in immunocompetent mice. This first set of studies aims to validate a recently achieved milestone regarding the establishment of a mRNA conjugation protocol.

With Defence’s AccumTM-mRNA vaccine engineering and synthesis completed, the final established product and an SOP has been finalized to be able to apply the same method to any chosen mRNA molecule combined with AccumTM to create a new platform vaccine technology.

The current study is divided into two main parts. The first part consists of administering the vaccine to animals as a prime-boost vaccination protocol with animal bleeding to be performed every two weeks over a period of 6 weeks. These blood samples will be then used to quantify by ELISA the antibody titer induced by both mRNA vaccines. To simplify logistics, the study is focused on an mRNA vaccine encoding the ovalbumin protein. The vaccine is admixed with the R848 adjuvant (a TLR ligand) and administered intramuscularly.

Once this analysis completed, another set of animals will be used to test the therapeutic potency of Defence’s AccumTM-mRNA vaccine. In this case, animals will be first transplanted with a solid T-cell lymphoma expressing the ovalbumin antigen. Two to three days later following tumor transplantation, mice will receive a prime-boost injection of Defence’s AccumTM-mRNA vaccine and tumor growth will be followed thereafter.

“These *in vivo* tests are of extreme importance to our strategic growth as they will reveal how the AccumTM technology can be adapted to synergise with mRNA vaccines”, says Mr. Plouffe, CEO of Defence Therapeutics.

mRNA vaccines were recently shown to be advantageous compared to other vaccination modalities but their immunogenicity and stability remain challenging. Based on the previously observed effects when AccumTM was applied to protein-based vaccines, Defence is convinced that

Accum™ will increase the stability of mRNA molecules by enhancing structural integrity of the molecule and could in addition significantly augment their bio-accumulation and efficient translation in target cells resulting in a stronger immune-reactivity.

Defence is developing its own novel Accum™-linked mRNA vaccines for multiple 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.>

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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