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DEFENCE'S mRNA WITH ACCUM™ FOR CANCER VACCINES UPDATE

Vancouver, BC, Canada, December 15th, 2022 - Defence Therapeutics Inc. (“**Defence**” or the “**Company**”), a Canadian biopharmaceutical company specialized in the development of immunoncology vaccines and drug delivery technologies, is currently working on combining its Accum™ technology with mRNA vaccination as previously announced in press release dated of October 31st, 2022. This R&D program will not only impact the field of cancer immunotherapy, but it can also be directly applied to the development of new vaccines targeting infectious diseases.

The mRNA vaccination approach offers tremendous advantages over the use of peptide- or protein-based vaccines. mRNA like any other biomolecule, is extremely sensitive to harsh conditions such as high acidity and enzymatic reactions, which would directly impede their therapeutic potency. In addition, mRNA molecules need to reach the cytoplasm where they can be efficiently translated into full proteins, this is where Accum™ may add stability and potency.

Defence has recently shown that "naked" mRNA can indeed be immunogenic, but the humoral (antibody) response generated against the vaccine is extremely weak. The Defence team is therefore working with a private European company to synthesize mRNA vaccines coupled with Accum™. The objective is to conduct a head-to-head comparison between Accum™-linked and "naked" mRNA vaccines in their potential to generate an immune response capable of eradicating and controlling established tumors.

“We expect the Accum™-mRNA vaccine will be prepared by the end of January 2023, then the *in vivo* study on animals with pre-established solid tumors will commence. The objective of this study is to demonstrate that Accum™ can significantly enhance the therapeutic potency of a given mRNA vaccine”, says Mr. Plouffe, CEO of Defence Therapeutics. “Once completed, Defence will have in its possession its own 100% owned mRNA with Accum™ vaccine for cancer. Defence will also be in a position to license its personalized Accum™ technology to any Pharma company with mRNA vaccines”, he adds.

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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