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Medicago announces production of viable vaccine candidate for COVID-19

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Medicago's platform can produce both vaccine and antibody candidates against COVID-19 disease



Medicago, a biopharmaceutical company headquartered in Quebec City, Canada has announced that they have successfully produced a Virus-Like Particle (VLP) of the coronavirus just 20 days after obtaining the SARS-CoV-2 (virus causing the COVID-19 disease) gene.

Production of the VLP is the first step in developing a vaccine for COVID-19, which will now undergo preclinical testing for safety and efficacy. Once this is completed, Medicago expects to discuss with the appropriate Health Agencies to initiate human trials of the vaccine by summer (July/August) 2020.

Medicago is also using its technology platform to develop antibodies against SARS-CoV-2 in collaboration with the Laval University's Infectious Disease Research Centre headed by Dr. Gary Kobinger, who helped develop a vaccine and treatment for Ebola. These SARS-CoV-2 antibodies could potentially be used to treat people infected by the virus. This research is being funded, in part, by the Canadian Institutes for Health Research (CIHR).

Medicago is a leader in plant-based technology, having previously demonstrated its capability to be a first responder in a flu pandemic. In 2009, the company produced a research-grade vaccine candidate against H1N1 in just 19 days. In 2012, Medicago manufactured 10 million doses of a monovalent influenza vaccine within one month for the Defence Advanced Research Projects Agency (DARPA), part of the U.S. Department of Defence. In 2015, Medicago also demonstrated that it could rapidly produce an anti-Ebola monoclonal antibody cocktail for the Biomedical Advanced Research and Development Authority (BARDA), part of the U.S. Department of Health and Human Services.

Dr. Bruce Clark, CEO of Medicago said, "The pace of our initial progress in COVID-19 is attributable to the capability of our plant-based platform, which is able to produce vaccine and antibody solutions to counteract this global public health threat. The ability to produce a candidate vaccine within 20 days after obtaining the gene is a critical differentiator for our proven technology. This technology enables scale-up at unprecedented speed to potentially combat COVID-19."

Dr. Gary Kobinger, Professor in the Department of Microbiology and Infectious Diseases and the Director of the Infectious Disease Research Centre at Laval University said "The collaborative efforts established between the research team at Laval University and Medicago have been very successful in developing unique antibodies against infectious diseases such as RSV and HMPV, and that experience gives us confidence for successful identification of therapeutic antibodies against SARS-CoV-

2.”

Medicago’s first product, a seasonal recombinant quadrivalent VLP vaccine for active immunization against influenza, is currently under review by Health Canada following the completion of a robust safety and efficacy clinical program involving over 25,000 patients.