Generation Bio and Vir Biotechnology to Collaborate on Research to Leverage Scalable Non-Viral Gene Therapy Platform for Durable Production of Monoclonal Antibodies Against Coronavirus That Causes COVID-19

March 30, 2020

CAMBRIDGE, Mass. & SAN FRANCISCO--(BUSINESS WIRE)--Mar. 30, 2020-- Generation Bio and Vir Biotechnology **(Nasdaq: VIR)** today announced a collaborative research agreement to explore the potential for Generation Bio's non-viral gene therapy platform to extend the impact and reach of Vir's current or future human monoclonal antibodies (mAb) against SARS-CoV-2, the virus responsible for COVID-19. Generation Bio's technology has the potential to deliver genetic information directly to cells without the use of adeno-associated viruses (AAV), in effect instructing the patient's body to produce the antibody itself.

This press release features multimedia. View the full release here: https://www.businesswire.com/news/home/20200330005148/en/

The companies believe that this technology, coupled with Vir's potent neutralizing antibodies, has the potential to provide effective, long-lasting protection against SARS-CoV-2. Vir's leading antibody was isolated from a SARS-CoV-1 recovered patient and potently neutralizes SARS-CoV-2. Vir believes that this approach can potentially provide broad and longer-lasting protection.

"Together, we believe we can develop long-lasting therapies suitable for population-wide prevention and treatment," said Generation Bio President and CEO Geoff McDonough, M.D. "We are moving with urgency to explore leveraging our platform to build protection against COVID-19 for the long term."

Generation Bio's proprietary non-viral gene therapy platform is designed to enable production of target proteins from a patient's own cells. This approach may allow the patient to maintain stable levels of antibody expression for years, providing continuous protection against the target virus. In addition, the companies intend to leverage Generation Bio's scalable manufacturing process to potentially extend the reach of Vir's monoclonal antibodies to a greater number of patients.

"We are eager to bring our antibodies to patients as quickly as possible, and should they work, to make them available to as many patients as quickly as possible. We are excited to explore the potential of ceDNA in an infectious disease setting and our anti-SARS-CoV-2 program offers a way to do that," said George Scangos, Ph.D., CEO of Vir. "Both companies are highly motivated to make meaningful contributions to stopping this disease and we look forward to a productive collaboration with Generation Bio."

About Generation Bio

Generation Bio is an innovative genetic medicines company focused on creating a new class of gene therapy to provide durable, redosable treatments for patients suffering from both rare and prevalent diseases. The company's non-viral platform incorporates a proprietary high-capacity DNA construct called closed-ended DNA, or ceDNA; a novel cell-targeted lipid nanoparticle delivery system, or ctLNP; and an established, scalable capsid-free manufacturing process. The company is designing therapies to provide targeted delivery of genetic payloads that include large and multiple genes across a broad array of tissues, and to be redosable for individualized and extended treatment throughout a patient's life. The platform is designed to expand access to treatments for rare diseases and to address prevalent diseases through efficient, scalable manufacturing.

About Vir's Antibody Platform

Vir has a robust method for capitalizing on unusually successful immune responses naturally occurring in people who are protected from, or have recovered from, infectious diseases. The platform is used to identify rare antibodies from survivors that have the potential to treat and prevent rapidly evolving and/or previously untreatable pathogens via direct pathogen neutralization and immune system stimulation. Vir engineers the fully human antibodies that it discovers to enhance their therapeutic potential. This platform has been used to identify and develop antibodies for pathogens including Ebola (mAb114, currently in use in the Democratic Republic of Congo), hepatitis B virus, influenza A, SARS-CoV-2, malaria, and others.

About Vir Biotechnology

Vir Biotechnology is a clinical-stage immunology company focused on combining immunologic insights with cutting-edge technologies to treat and prevent serious infectious diseases. Vir has assembled four technology platforms that are designed to stimulate and enhance the immune system by exploiting critical observations of natural immune processes. Its current development pipeline consists of product candidates targeting hepatitis B virus, influenza A, SARS-CoV-2, human immunodeficiency virus, and tuberculosis. For more information, please visit www.vir.bio.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "may," "will," "expect," "believe," "plan," "anticipate," "estimate," "explore," "intend," "potential" and similar expressions (as well as other words or expressions referencing future events, conditions or circumstances) are intended to identify forward-looking statements. These forward-looking statements are based on Vir's expectations and assumptions as of the date of this press release. Each of these forward-looking statements involves risks and uncertainties. Actual results may differ materially from these forward-looking statements. Forward-looking statements contained in this press release include statements regarding the potential benefits of Vir's collaboration with Generation Bio, the ability of ceDNA to deliver and support the production of antibodies against SARS-CoV-2, Vir's efforts to identify potential therapies for SARS-CoV-2, and its ability to address the COVID-19 pandemic. Many factors may cause differences between current expectations and actual results including unexpected safety or efficacy data observed during preclinical or clinical studies, challenges in administering mAbs against SARS-CoV-2, difficulties in scaling the manufacturing process to extend the reach of Vir's monoclonal antibodies, and challenges in accessing manufacturing capacity. Other factors that may cause actual results to differ

from those expressed or implied in the forward-looking statements in this press release are discussed in Vir's filings with the U.S. Securities and Exchange Commission, including the section titled "Risk Factors" contained therein. Except as required by law, Vir assumes no obligation to update any forward-looking statements contained herein to reflect any change in expectations, even as new information becomes available.

View source version on businesswire.com: https://www.businesswire.com/news/home/20200330005148/en/

Generation Bio:
Investors
Monique Allaire
THRUST Strategic Communications
Monique@thrustsc.com
+1-617-895-9511

Media
Stephanie Simon
Ten Bridge Communications
stephanie@tenbridgecommunications.com
+1-617-581-9333

Vir Biotechnology:
Investors
Neera Ravindran, MD
Head of Investor Relations & Strategic Communications
nravindran@vir.bio
+1-415-506-5256

Media
Lindy Devereux
Scient PR
lindy@scientpr.com
+1-646-515-5730

Source: Generation Bio and Vir Biotechnology