



CaroGen and Yale Scientists Team to Develop a COVID-19 Vaccine

Farmington, CT, March 10, 2020 – Privately-held CaroGen Corporation today announced the development of its novel **AVIDIO**/SARS-CoV-2 recombinant vaccine for COVID-19 in collaboration with scientists at the Yale University School of Medicine.

CaroGen, headquartered in Farmington, CT, is a spin-off from Yale University School of Medicine. The Company is developing first-in-class vaccines and immunotherapies based on its transformative patented **AVIDIO** (Artificial Virus for Infectious Diseases and Immune-Oncology) technology platform.

The **AVIDIO** platform was discovered at Yale School of Medicine by Professor John Rose who is a Co-founder and Chairman of the Scientific Advisory Board at CaroGen. Dr. Rose previously conducted groundbreaking studies on an effective SARS vaccine and published three papers on this topic from 2005-2008. Dr. Rose and his collaborators developed a vaccine shown to be protective, in animal models, against infection by the SARS-CoV coronavirus, which is genetically similar to the new SARS-CoV-2 coronavirus which causes COVID-19 disease.

The CaroGen-Yale team has launched a program to employ its new **AVIDIO** platform to develop a vaccine for COVID-19, based upon mechanisms discovered in prior vaccine/immunotherapy research programs. They are generating vaccines expressing the SARS CoV-2 spike glycoprotein (S) and testing them for immunogenicity in animals. “We hope to select candidate(s) for human clinical studies within the next several months,” said Dr. Rose. He added, “We are accelerating the development of an **AVIDIO**/COVID-19 vaccine because of the promise of our novel **AVIDIO** platform and the global health crisis caused by COVID-19.

“The foundation for a novel COVID-19 vaccine was established in our laboratory over a decade ago. We used our platform, based on vesicular stomatitis virus, to build a vaccine delivering S glycoprotein, the major protective antigen of SARS-CoV. We then conducted animal vaccination and protection studies with collaborators at the National Institutes of Health. In initial preclinical studies, we showed that a single dose of the vaccine induced levels of antibodies sufficient to protect young mice from SARS-CoV challenge. Unvaccinated control animals had high viral loads in the lungs, while virus was undetectable in the lungs of vaccinated animals. Subsequent studies were performed in an aged mouse model that mimics human disease. There we showed that the vaccine induced antibody titers sufficient to reduce viral load, protect from weight loss and reduce or eliminate histopathologic changes in the lungs of aged mice”, said John (Jack) Rose, Ph.D, who currently is Yale Professor Emeritus of Pathology, also Senior Research Scientist and Director of its Molecular Virology Program “We are excited to work with Dr. Rose to advance the **AVIDIO** COVID-19 vaccine rapidly to clinical studies and prophylactic use,” said Bijan Almassian, PhD, CEO and Co-founder of CaroGen.

About CaroGen Corporation:

CaroGen, based in Farmington, CT, is creating a portfolio of immunotherapies and vaccines for oncology

and infectious diseases using its patented **AVIDIO** immunotherapy platform, discovered at Yale University School of Medicine by renowned virologist, Professor John Rose, PhD, and licensed by CaroGen for worldwide use. CaroGen's initial focus has been on developing a potential functional cure for chronic HBV infection. CaroGen has completed preclinical proof-of-concept in HBV animal models and selected a clinical candidate, CARG-201. CaroGen also is exploiting its **AVIDIO** platform technology to create novel immunotherapies prospectively for colorectal, ovarian, and liver cancers in collaborations with medical researchers at Yale University, University of Connecticut, Brown University, Albany Medical College and Wayne State University.

Contact information:

Bijan Almassian, PhD

President & CEO

balmassian@carogencorp.com

Tel: 203-815-5782