Immunome’s Therapeutic Antibody Discovery Engine

enables the rapid identification of a highly-effective Biosynthetic Convalescent Plasma (BCP) to be developed as a potential COVID-19 prophylactic and treatment.

One Single Step from the HUMAN B CELL TO ANTIBODIES

Samples are collected from COVID-19 Super-Responders (high circulating antibodies)

Antibody libraries are generated from the human body’s productive anti-viral response

Industrial-scale screening identifies the most effective COVID-19 antibodies

BCP Antibody Cocktail

BCP will likely include 4-6 biosynthetic antibodies designed to trigger multiple viral clearances mechanisms and potentially avoid resistance

The BCP DIFFERENCE

» Multiple antibodies and several anti-viral mechanisms of action to fight the virus

» A standardized, scalable alternative that is expected to overcome the challenges of convalescent plasma

» Antibodies are derived from humans, potentially lowering development risk

» The antibody discovery engine can be quickly re-deployed to identify additional antibodies against SARS-CoV-2 mutations and other pathogens that may emerge in the future

Immunome’s BCP aims to employ anti-viral mechanisms to fight the virus.

The mechanisms can synergize to maximize the effectiveness of this therapeutic/prophylactic product

1 – Neutralization  Antibodies bind to variants of Spike protein (the red spike protein) on a range of viral isolates and block the virus from entering the body’s cells.

2 – Complement Fixation  Not all antibodies that target Spike proteins succeed in blocking the virus. Some antibodies also attack other viral proteins and activate the membrane attack complex to destroy the virus and infected cells.

3 – Phagocytosis & Antibody Dependent Cell Cytotoxicity  Some antibodies will also recruit effector immune cells (e.g., macrophages, NK, T cells) to destroy the virus and virally-infected cells.