Monoclonal Antibodies – A Hope for Fast and Safe Prevention of COVID-19

By James August, Ph.D.

On the topic of antibodies, biologists Hachim et al. in a pre-published article look pathogenesis and immune interventions. Their findings have important implications for SARS-CoV-2 transmission, including MERS-CoV and SARS-CoV-1. In a fast and safe prevention of COVID-19, researchers have developed methods from intravenously to intramuscularly, offering a rapid shortcut to administration instead of purified clones, thereby shaving months off development timelines.

Monoclonal antibodies are derived from B-cells isolated from a human or animal to prevent disease. However, the threat of an ongoing pandemic should warrant at least some critical research efforts and the most promising projects to work on. The circumstances in which we find ourselves are far from usual. There is no time to spare, and certainly no time to waste.

Dr. James E. Crowe Jr., Director of the Vanderbilt Vaccine Center, will present an overview of his efforts to advance human monoclonal antibody therapeutics for COVID-19 at a webinar on Wednesday, May 6 at 10 a.m. EST. If you haven't registered for the webinar yet, you can still do so using the link below. This Thursday (May 7), the Human Vaccines Project is launching the Global COVID Lab Meeting. While it may be possible for researchers to find better ways to fight the virus, some pathways have already been charted.

This is an opportunity to learn about antibody research and how it can prevent COVID-19 from spreading in advance of the development of an effective vaccine. Here are the steps that should be taken to accelerate their development. For critical populations, MAbs can be part of the solution to the ongoing coronavirus pandemic, but this will require a tremendous amount of work. The circumstances in which we find ourselves are far from usual. There is no time to spare, and certainly no time to waste.

The fact that tremendous progress has been made with monoclonal antibody therapeutics for critical populations, MAbs (i.e., with greater potency or fewer development liabilities), time is critical and researchers engaged in this work. However, drug candidate discovery is often not straightforward. Researchers may need to consider new methods from intravenously to intramuscularly, and offer a rapid shortcut to administration instead of purified clones, thereby shaving months off development timelines.

The following articles cover important research around COVID-19 and the development of antibody therapies. The key advantages of monoclonal antibodies are advantages in speed, cost and pathogen binding when compared to human antibodies. It is more important than ever for companies to work together to establish processes and procedures to facilitate the long history of CHO manufacture of mAbs for clinical use, perhaps in collaboration with Biogen and Vir Biotechnology. While it may be possible for researchers to find better ways to fight the virus, some pathways have already been charted. MAbs can provide vaccine developers with insights into one possible mechanism of protection, or alternatively, highlight things that should be avoided.

The Head of Research at Immunocore, Must Read for the Global COVID Lab Meeting.

Faster and Safer of COVID-19

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