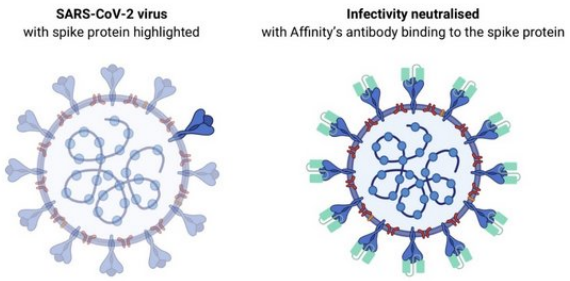
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Affinity discovers potent SARS-CoV-2 antibodies

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The antibodies have high affinity for the SARS-CoV-2 spike protein at around 20 picomolar



Melbourne-based Affinity Biosciences Pty Ltd (Affinity), a privately held company focused on antibody discovery for cancer therapeutics, has announced the discovery of potent antibodies with therapeutic potential against COVID-19.

In March, Affinity commenced screening its proprietary library of one hundred billion human antibodies to discover those that might neutralise SARS-CoV-2, the virus that causes COVID-19. After discovering a number of candidate antibodies that block the virus spike protein from binding to its human receptor, Affinity engaged The Peter Doherty Institute for Infection and Immunity (Doherty Institute) in April to conduct testing using the virus in the laboratory.

The Doherty Institute has confirmed that Affinity's antibodies can completely neutralise the infectivity of SARS-CoV-2 at a single digit microgram/ml concentration in a five-day virus neutralisation assay. The antibodies have high affinity for the SARS-CoV-2 spike protein at around 20 picomolar, driven by an exceptionally slow off-rate, a measure of how long the antibody remains bound to its target.

The next steps in the development of Affinity's COVID-19 therapy are:

- Affinity will seek an expedited process to enable their antibodies to be rapidly manufactured to the standards of Good Manufacturing Practice (GMP) for clinical studies.
- Identification of expedited clinical development pathways with regulatory agencies (TGA, FDA, and EMA).
- Discussions with governments, NGOs, and pharmaceutical companies for accelerated development and commercial distribution. Affinity's antibodies are in a comparative study conducted by the La Jolla Institute for Immunology (the CoVIC program) funded by the COVID-19 Therapeutics Accelerator, launched in March by the Bill & Melinda Gates Foundation, Wellcome Trust, Mastercard, and philanthropists (covic.lji.org).