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Australia invests $6M in new COVID-19 vaccine projects

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Australia will invest almost $6 million in additional funding from the Medical Research Future Fund's (MRFF) Coronavirus Research Response to support research and development of three Australian COVID-19 vaccines.

The rapid development of safe and effective COVID-19 vaccines is a critical Australian Government priority.

Under the competitive, peer reviewed COVID-19 Vaccine Candidate Research Grant Opportunity, funding will be allocated for the further development of three COVID-19 vaccines.

The University of Melbourne will receive almost $3 million to develop two vaccine candidates. Both vaccines are targeting the tip of the spike protein, known as the receptor binding domain, but use different vaccine techniques to compare which vaccine maximises the production of neutralising antibodies.

- protein vaccine – this vaccine introduces a protein into the body to maximise the antibody immune response to neutralise viral infectivity
- mRNA vaccine – this vaccine represents a genetic sequence that supports the human body to make the protein which would then maximise the antibody response to the tip of the spike protein to neutralise viral infectivity

The University of Sydney, will receive almost $3 million for a Phase 1/1b clinical trial to test the safety and effectiveness of a novel DNA-based COVID-19 vaccine. The vaccine is being developed so it can be administered using a needle-free system. The trial is a partnership with four of Australia's most experienced vaccine trial sites and aims to enrol 150 healthy volunteers. Findings from the trial will inform evaluation of the vaccine in larger Phase two and three trials.

Subject to further work, the resulting vaccines could eventually be deployed in Australia and around the world.