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Australia to develop rapid test for COVID-19 detection

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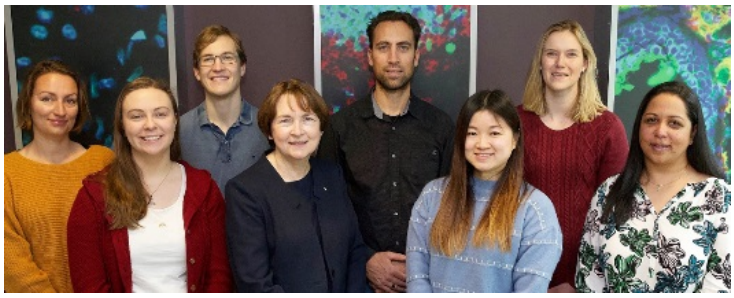
To make a rapid test to determine who has immunity to coronavirus



A team, led by Associate Professor Menno van Zelm from Australia's Monash University's Central Clinical School together with Professor Robyn O'Hehir from Central Clinical School and Alfred Health, is repurposing technology they recently developed to test for a patient's immunity to allergens and to influenza – to make a rapid test to determine who has immunity to coronavirus, who remains infectious and who is at risk of developing a severe form of the disease.

The researchers will start receiving cell samples in early April from colleagues in Melbourne and three main hotspots: Italy, China and New York. There is a growing need to identify immune healthcare workers, minimise furloughing, and allow workers safely back into the frontline.

The test will also have the capacity to look for differences in the blood of patients with mild disease versus those with a severe infection, in the hope of finding biomarkers that can predict those who may need early medical intervention.

The test, similar to the recently developed test for influenza, looks at what are called "memory B lymphocytes". B lymphocytes are the cells of the immune system that make antibodies to invading pathogens such as viruses. They form memory cells that remember the same pathogen for faster antibody production in future infections – these are the cells formed after vaccination and that respond quickly when a pathogen is encountered, thereby preventing the disease (e.g. measles, tetanus).