

Testing for COVID-19 antibodies in frontline healthcare workers

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Credit: Trinity College Dublin

Frontline healthcare workers are at high risk of developing COVID-19 in the current viral pandemic. However, we do not know how many have developed antibodies and immunity to the COVID-19 virus, SARS-CoV2 in Ireland.

For this, we need a reliable [test](#) to detect antibodies to SARS-CoV2 in the body. Few reliable tests are currently available, and those in use are both expensive and in high demand.

Trinity researchers, Dr. Gareth Brady and Dr. William McCormack from the Trinity Translational Medicine Institute (TTMI) have created a quick and cost-effective serology test which will screen for antibodies to the virus and identify which frontline healthcare workers have been infected.

This new research study was one of eleven projects recently funded under the 'COVID-19 Rapid Response Research and Innovation programme', announced by government this week.

While several COVID-19 virus antibody tests are under development internationally, few have been

validated and those that have are both costly and in high demand worldwide. This new research project in Ireland will focus on validating an existing serology test for SARS-CoV2 [antibodies](#).

Partnering with a Top-tier UK-based CRO (Peak Proteins) to produce quality recombinant antigens for the [assay](#), the Trinity team will validate the test using positive samples from the St James's Hospital/Trinity Translational Medicine Institute COVID BioResource (Professors Niall Conlon, Cliona Ni Cheallaigh & Aideen Long) before evaluating the test on a broader population base.

If successful, the result will be a test that can quickly and cost-effectively screen the Irish population, including frontline healthcare workers, for post-infection immunity.

This will help to identify individuals who are likely to be immune and who can more safely work with members of the public and with patients.

Lead researchers Dr. Gareth Brady & Dr. William McCormack, TTMI, Trinity, said: "We have linked up with a very experienced, UK-based CRO to produce high quality recombinant antigen for this SARS-CoV2 serology test. The assay we seek to replicate has recently been approved by the FDA and we are confident of delivering a highly sensitive and specific assay that will be cost effective and could be used to screen the Irish public for SARS-CoV2 Immunity."

Provided by Trinity College Dublin

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