

## Singapore develops new test that can swiftly detect if someone has had Covid-19

### Singapore

DUKE-NUS Medical School has come up with a Covid-19 test kit which takes just an hour, instead of the usual several days, to flag if someone has been infected before.

The new test can be used to see if potential vaccines work, to check what proportion of the population has already been infected and for contact tracing, which is critical as the country eases up on circuit-breaker measures.

It is available to hospitals here, and is the first of its kind to single out specific antibodies – the weapon the human body harnesses against infection – which neutralise the coronavirus and prevent it from infecting a patient's cells, said the researchers.

When someone is infected with the virus, the body produces hundreds, if not thousands, of different antibodies, which bind with the virus and are known as binding antibodies. However, not all of them can neutralise the virus. This is the role of neutralising antibodies.

The advantage of the new test over others being used currently is that it is fast, can single out such antibodies and can be used in regular research or hospital settings, rather than needing specialised expertise and equipment.

At a virtual press conference on Friday, the school announced that it would be co-developing and manufacturing the kit, known as cPass, with biotech company GenScript Biotech Corporation and the Diagnostics Development Hub (DxD Hub) of the Agency for Science, Technology and Research (A\*Star).

There are also plans to partner local biotech companies to increase the production of the test kits.

The test can be carried out in most research or clinical labs, said Duke-NUS.

Other Covid-19 tests for such antibodies require the use of live virus, cells, highly skilled operators and complex laboratory procedures that are generally less sensitive and require several days to obtain results.

cPass was invented by a team led by Professor Wang Linfa, director of Duke-NUS' Emerging Infectious Diseases programme. The team also carried out assay development and testing in Singapore.

Prof Wang said: "The cPass developed by our team can be used for contact tracing, reservoir or intermediate animal tracking, assessment of herd immunity, longevity of protective immunity and efficacy of different vaccine candidates.

"It does not require a biosafety containment facility, which makes it immediately accessible to the global community, including many developing nations." THE STRAITS TIMES