

New study at Singapore could underpin a 'dream' vaccine for future outbreaks

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Boosts hopes for a broad vaccine to combat COVID-19 variants and future coronavirus outbreaks



Scientists from Duke-NUS Medical School and National Centre for Infectious Diseases (NCID) in Singapore have found that 2003 SARS survivors who have been vaccinated with the Pfizer-BioNTech mRNA vaccine produced highly potent functional antibodies that are capable of neutralising not only all known SARS-CoV-2 variants of concerns (VOCs) but also other animal coronaviruses that have the potential to cause human infection.

This finding, published in *The New England Journal of Medicine*, is the first time that such cross-neutralising reactivity has been demonstrated in humans, and further boosts hopes of developing an effective and broad-spectrum next-generation vaccine against different coronaviruses.

“Our study points to a novel strategy for the development of next-generation vaccines, which will not only help us control the current COVID-19 pandemic, but may also prevent or reduce the risk of future pandemics caused by related viruses,” said Professor Wang Linfa from Duke-NUS EID (Emerging Infectious Diseases) programme, who is the senior corresponding author of this study.

The team is currently conducting a proof-of-concept study to develop a third-generation vaccine against different coronaviruses (3GCoVax) as well as broad neutralising antibodies for therapy and is looking to recruit individuals who recovered from SARS infection in 2003.