BioSpectrum
the business of Bio & Health Sciences
ASIA EDITION

Researchers at Australia & Korea investigate effect of COVID-19 virus on vision

December 20, 2022 | News

Whether the COVID-19 virus can affect vision and depth-perception of those infected



A study, co-led by Australia-based Griffith University's Menzies Health Institute and South Korea's Center for Convergent Research for Emerging Virus Infection, Korea Research Institute of Chemical Technology, aims to understand how SARS-CoV-2 affects the eyes and whether it could serve as a virus infection route.

The study found that the eyes and the trigeminal nerves are susceptible to the virus and that (in animal models) SARS-CoV-2 can infect the eye through the respiratory tract, via the brain.

Principal Research Leader and co-lead author Professor Suresh Mahalingam said the virus can begin to affect vision when inflammation of the optic nerves, abnormal fluid build-up, and immune cell infiltration cause the retina to get thicker.

"The virus can infect the eye through nerve tissues at the back of the eye that play a role in the visual aspects of the eye and sending signals for visual purposes," Prof Mahalingam said.

Griffith University PhD student Ng Wern Hann said that while a lot of COVID-19 research has been focused on respiratory infection, particularly in the lungs and nasal region, there has not been much focus on the eyes.

The findings, published in Nature Communication, give new insights into COVID-19 disease and may facilitate the development of treatment strategies for patients.