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COVID-19 can cause brain cells to Ã¢â?¬Ë?fuse': Australian study

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A major cause of neurological diseases and clinical symptoms is still unexplored



Researchers at The University of Queensland (UQ) in Australia have discovered viruses such as SARS-CoV-2 can cause brain cells to fuse, initiating malfunctions that lead to chronic neurological symptoms.

SARS-CoV-2, the virus that causes COVID-19, has been detected in the brains of people with ‘long COVID’ months after their initial infection.

Researchers have discovered that COVID-19 causes neurons to undergo a cell fusion process, which has not been seen before. After neuronal infection with SARS-CoV-2, the spike S protein becomes present in neurons, and once neurons fuse, they don’t die. They either start firing synchronously, or they stop functioning altogether.

The discovery offers a potential explanation for persistent neurological effects after a viral infection.

In the current understanding of what happens when a virus enters the brain, there are two outcomes – either cell death or inflammation. But this study has shown a third possible outcome, which is neuronal fusion.