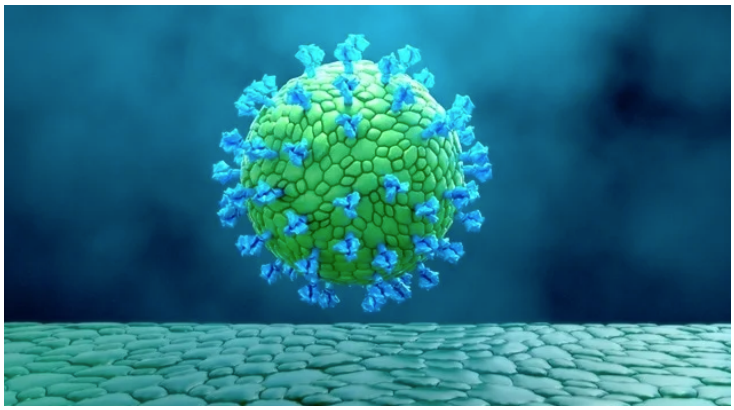
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India develops novel virus-like particle to combat COVID-19 & variants

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The researchers plan to study the effect on humans



A team of researchers at the Indian Institute of Science (IISc) have developed and tested a novel virus-like particle (VLP), a non-infectious nanoscale molecule that resembles and behaves like the virus but does not contain its native genetic material.

It can not only be used to safely study the effect of mutations that may arise in SARS-CoV-2, without requiring a Bio Safety Level-3 (BSL-3) facility – but can also potentially be developed into a vaccine candidate that can trigger an immune response in our bodies.

According to the researchers, these VLPs can also be used to cut down the time taken to screen drugs that can fight the virus.

When the team injected a high dose of VLPs into mice in the lab, it did not affect the liver, lung, or kidney tissues. To test its immune response, they gave one primary shot and two booster shots to mice models with a gap of 15 days, after which they found a large number of antibodies generated in the blood serum of the mice. These antibodies were also capable of neutralising the live virus, the team found.

The researchers have applied for a patent for their VLP and hope to develop it into a vaccine candidate. They also plan to study the effect of the VLP on other animal models, and eventually humans. The team has also developed VLPs that might be able to offer protection against the more recent variants like Omicron and other sub lineages.