



## Ufovax Formulates COVID-19 Vaccine Using its Nanoparticle Vaccine Technology

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Ufovax, has successfully extended its patented one component self-assembling protein nanoparticle (1c-SApNP) vaccine platform technology to a vaccine against the coronavirus SARS-CoV-2.

[Ufovax](#), a spin-off vaccine company from [Scripps Research](#), announced today that the company has successfully extended its patented one component self-assembling protein nanoparticle ([1c-SApNP](#)) vaccine platform technology to a vaccine against the coronavirus SARS-CoV-2. The vaccine prototype features SARS-CoV-2 protein spikes protruding from a protein nanoparticle scaffold. As a virus-like particle (VLP), the nanoparticle vaccine would induce the immune system to rapidly generate antibodies to neutralize (deactivate) the coronavirus, offering a recipient protection against the real SARS-CoV-2 virus.

The 1c-SApNP vaccine platform was invented by Jiang Zhu, PhD, Associate Professor in the Department of Integrative Structural and Computational Biology at Scripps Research. This platform has already delivered promising vaccine candidates to address global health challenges such as HIV, HCV, Ebola, and RSV. Over the past two years, Zhu has co-led two NIH-supported projects focusing on SARS-CoV/MERS-CoV vaccine development. After the recent COVID-19 outbreak, Zhu and his team used the nanoparticle platform to create a vaccine against SARS-CoV-2 in less than 60 days.



Genetically-encoded, one-component, self-assembling protein nanoparticles (1c-SApNP) vaccine

“I am thrilled about our success in completing this crucial first step toward developing a vaccine against the new coronavirus. We hope to soon begin initial tests to see whether our vaccine can induce an immune response against SARS-CoV-2 in animal models and eventually in clinical trials,” said Dr. Zhu.

## **Nanotechnology in Battle Against Coronavirus ...**

The nanoparticle vaccine consists of self-assembling VLPs made from identical proteins; these proteins are synthesized through the insertion of a single plasmid encoding the relevant gene into a CHO or C1 (DYAI) host cell, followed by one-step expression and two subsequent purifications. The viability of this process for large-scale vaccine production has been validated by external industrial partners.

“We are honored to continue our collaboration with Dr. Zhu’s team at Scripps Research, and proud to bring this new vaccine to Ufovax’s product pipeline,” said Dr. Ji Li, PhD, President & CEO of Ufovax. “Thanks to its elegant design, producing this vaccine at high yield and purity is remarkably simple. We look forward to advancing the clinical translation of B-cell focused, nanoparticle vaccines to fight infectious diseases around the world.”

Ufovax is a privately held biotechnology company and holds exclusive rights to develop and commercialize Scripps Research nanoparticle vaccine technology for certain vaccine targets.

Read the [original article](#) on UFOVAX.