

US Army Creates Single Vaccine Against All COVID & SARS Variants, Researchers Say

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Within weeks, Walter Reed researchers expect to announce that human trials show success against Omicron—and even future strains.

Within weeks, scientists at the [Walter Reed Army Institute of Research](#) expect to announce that they have developed a vaccine that is effective against COVID-19 and all its variants, even Omicron, as well as previous SARS-origin viruses that have killed millions of people worldwide.

The achievement is the result of almost two years of work on the virus. The Army lab received its first DNA sequencing of the COVID-19 virus in early 2020. Very early on, Walter Reed's infectious diseases branch decided to focus on making a vaccine that would work against not just the existing strain but all of its potential variants as well.

Walter Reed's Spike Ferritin Nanoparticle COVID-19 vaccine, or SpFN, completed animal trials earlier this year with positive results. Phase 1 of human trials, wrapped up this month, again with positive results that are undergoing final review, Dr. Kayvon Modjarrad, director of Walter Reed's infectious diseases branch, said in an exclusive interview with Defense One on Tuesday. The new vaccine will still need to undergo phase 2 and phase 3 trials.

"We're testing our vaccine against all the different variants, including Omicron," Modjarrad said.

On Wednesday, Walter Reed officials said in a statement that its vaccine "was not tested on the Omicron variant," but later clarified in an email to Defense One that while the recently

discovered variant was not part of the animal studies, it is being tested in the lab against clinical human trial samples. These "neutralization assays" test whether antibodies can inhibit the growth of a virus.

"We want to wait for those clinical data to be able to kind of make the full public announcements, but so far everything has been moving along exactly as we had hoped," Modjarrad said.

Unlike existing vaccines, Walter Reed's SpFN uses a soccer ball-shaped protein with 24 faces for its vaccine, which allows scientists to attach the spikes of multiple coronavirus strains on different faces of the protein.

"It's very exciting to get to this point for our entire team and I think for the entire Army as well," Modjarrad said.

The vaccine's human trials took longer than expected, he said, because the lab needed to test the vaccine on subjects who had neither been vaccinated nor previously infected with COVID.

Increasing vaccination rates and the rapid spread of the Delta and Omicron variants made that difficult.

"With Omicron, there's no way really to escape this virus. You're not going to be able to avoid it. So I think pretty soon either the whole world will be vaccinated or have been infected," Modjarrad said.

The next step is seeing how the new pan-coronavirus vaccine interacts with people who were previously vaccinated or previously sick. Walter Reed is working with a yet-to-be-named industry partner for that wider rollout.

“We need to evaluate it in the real-world setting and try to understand how does the vaccine perform in much larger numbers of individuals who have already been vaccinated with something else initially or already been sick,” Modjarrad said.

He said nearly all of Walter Reed’s 2,500 staff have had some role in the vaccine’s nearly-two-year development.

“We decided to take a look at the long game rather than just only focusing on the original emergence of SARS, and instead understand that viruses mutate, there will be variants that emerge, future viruses that may emerge in terms of new species. Our platform and approach will equip people to be prepared for that.”

Read the [original article](#) on Defence One.