

US company trials coronavirus vaccine candidate in Australia

May 26 2020, by Rod McGuirk



In this photo released by Nucleus Network/ABC, clinical trial participants are given a coronavirus vaccine in Melbourne, Australia, Tuesday, May 26, 2020, with hopes of releasing a proven vaccine this year. Novavax will inject 131 volunteers in the first phase of the trial testing the safety of the vaccine and looking for signs of its effectiveness. (Patrick Rocca/Nucleus Network/ABC via AP)

A U.S. biotechnology company began injecting a coronavirus vaccine candidate into people in Australia on Tuesday with hopes of releasing a proven vaccine this year.

Novavax will inject 131 volunteers in the first phase of the trial testing the safety of the vaccine and looking for signs of its effectiveness, the company's research chief Dr. Gregory Glenn said.

About a dozen experimental vaccines against the coronavirus are in early stages of testing or poised to start, mostly in China, the U.S. and Europe. It's not clear that any will prove safe and effective. But many work in different ways, and are made with different technologies, increasing the odds that at least one approach might succeed.

"We are in parallel making doses, making vaccine in anticipation that we'll be able to show it's working and be able to start deploying it by the end of this year," Glenn told a virtual news conference in Melbourne from Novavax' headquarters in Maryland.

Animal testing suggested the vaccine is effective in low doses. Novavax could manufacture at least 100 million doses this year and 1.5 billion in 2021, he said.

Manufacture of the vaccine, named NVX-CoV2373, was being scaled up with \$388 million invested by Norway-based Coalition for Epidemic Preparedness Innovations since March, Glenn said.



In this photo released by Nucleus Network/ABC, technicians prepare for a clinical trial of a coronavirus vaccine in Melbourne, Australia, Tuesday, May 26, 2020, with hopes of releasing a proven vaccine this year. Novavax will inject 131 volunteers in the first phase of the trial testing the safety of the vaccine and looking for signs of its effectiveness. (Patrick Rocca/Nucleus Network/ABC via AP)

The results of the first phase of clinical trials in Melbourne and Brisbane are expected to be known in July, Novavax said. Thousands of candidates in several countries would then become involved in a second phase.

The trial began with six volunteers being injected with the potential vaccine in Melbourne on Tuesday, said Paul Griffin, infectious disease expert with Australian collaborator Nucleus Network.

Most of the experimental vaccines in progress aim to train the immune system to recognize the "spike" protein that studs the coronavirus' outer surface, priming the body to react if it was exposed to the real virus. Some candidates are made using just the genetic code for that protein, and others use a harmless virus to deliver the protein-producing information. Still other vaccine candidates are more old-fashioned, made with dead, whole virus.

Novavax adds another new kind to that list, what's called a recombinant vaccine. Novavax used genetic engineering to grow harmless copies of the coronavirus spike protein in giant vats of insect cells in a laboratory. Scientists extracted and purified the protein, and packaged it into virus-sized nanoparticles.



In this photo released by Nucleus Network/ABC, Dr. Jason Lickliter, left, chief medical officer of Nucleus Network, talks with a clinical trial participant given a coronavirus vaccine, in Melbourne, Australia, Tuesday, May 26, 2020, with hopes of releasing a proven vaccine this year. Novavax will inject 131 volunteers in the first phase of the trial testing the safety of the vaccine and looking for signs of its effectiveness. (Patrick Rocca/Nucleus Network/ABC via AP)

"The way we make a vaccine is we never touch the virus," Novavax told The Associated Press last month. But ultimately, "it looks just like a virus to the immune system."

It's the same process that Novavax used to create a nanoparticle flu

vaccine that recently passed late-stage testing.

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Citation: US company trials coronavirus vaccine candidate in Australia (2020, May 26) retrieved 22 July 2024 from <https://medicalxpress.com/news/2020-05-company-trials-coronavirus-vaccine-candidate.html>

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