Coronavirus: Scientists in the US race to find a vaccine

The potential answer to stopping the coronavirus may be swishing around inside these trays. Researchers at the US vaccine company Novavax say they have made a protein that stops the virus from binding to human cells.

Nita Patel: We are working countless hours and I think we have made a significant ...uh... progress in last ... you know ... couple weeks.

Scientists here received the coronavirus gene sequence on January 10. They say within weeks, they cloned a non-infectious element of the virus, using ovary cells from a North American caterpillar as a protein factory.

Gregory Glenn: So now we have insect ovary cells making a "spike protein" which we then purify, and that becomes a vaccine.

The Novavax procedure has worked to make vaccines for the flu, Ebola, and MERS. For the coronavirus, it appears to be effective as well.

Clinical tests are expected to begin this spring. Though full licensing takes years, vulnerable communities could receive the experimental vaccine on a compassionate-use basis much sooner.

Nita Patel: The incentive is to save and help people as quickly and as soon as possible.

In the race to contain the coronavirus, a win for the first to cross the finish line with a vaccine or a treatment, is a win for all. And so government researchers here at the National Institute of Health are partnering with private labs to quicken the pace of drug development.

Moderna is another US bio-firm making progress. Its coronavirus vaccine is already in the NIH’s hands and preparing for clinical trials in April.

Gregory Glenn: I think that’s commendable ...um... If we have to come up with a billion doses you might actually need ... you know... several vaccines that are ... that are working.

Coronavirus has killed thousands and is heading toward a pandemic. US health officials say this is the fastest science has ever moved to develop a vaccine, but it could still be more than a year before any is massively deployed.