

Promising pre-clinical results for COVID-19 vaccine

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USask VIDO-InterVac research team. Credit: University of Saskatchewan

A COVID-19 vaccine candidate developed by the University of

Saskatchewan's (USask) Vaccine and Infectious Disease Organization-International Vaccine Centre (VIDO-InterVac) has cleared another major milestone in moving towards human clinical trials: the novel vaccine has proven highly effective in ferrets, one of the commonly used animal models for COVID-19.

To evaluate the effectiveness of the [vaccine](#), the ferrets received two immunizations prior to being exposed to SARS-CoV-2, the virus that causes COVID-19. The vaccine induced a strong immune response, generated neutralizing antibodies, and decreased viral infection in the upper respiratory tract to almost undetectable levels.

"We are working to ensure our COVID-19 vaccine advances as rapidly as possible," said VIDO-InterVac Director Dr. Volker Gerdts. "Proving that the vaccine is effective in ferrets is a key milestone in the development pathway."

VIDO-InterVac's vaccine was developed using the team's expertise, gained from research on other coronaviruses including SARS and MERS. The vaccine was formulated with a combination adjuvant (a component that helps vaccines work better) previously created in partnership with Dalhousie University, the University of British Columbia, and the South Korean-based International Vaccine Institute, with funding from the Bill and Melinda Gates Foundation.

"We are excited by these results and are continuing to develop our vaccine towards regulatory approval," said project leader Dr. Darryl Falzarano.

Several additional trials are planned over the next few months, including safety studies to prepare for [human clinical trials](#) this fall. The organization is also completing a vaccine manufacturing facility that will be GMP (Good Manufacturing Practice) certified to support vaccine

production capacity in Canada.

VIDO-InterVac's COVID-19 vaccine development is supported by the Government of Canada and the Government of Saskatchewan. Operations are supported by the Government of Saskatchewan through Innovation Saskatchewan and by the Canada Foundation for Innovation through their Major Science Initiatives Fund.

In addition to COVID-19 vaccine development, VIDO-InterVac is working with research groups around the world to test antivirals and therapeutics against COVID-19.

VIDO-InterVac, a world leader in infectious disease research and vaccine development, was the first lab in Canada to isolate SARS-CoV-2 and the first lab in the country to establish an [animal model](#) for testing vaccines, antivirals and therapeutics.

Provided by University of Saskatchewan

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