

Nano Science, Technology and Industry Scoreboard

Canadian Coalition for COVID-19 Releases 51 Promising Nanobodies

2020-08-30 A coalition of Canadian companies has published 51 antibodies that show promising ability to bind the COVID-19 virus by attaching to its crown-like spikes.

The coalition — comprised of <u>Novobind</u>, <u>Cedarlane</u>, <u>SignalChem</u>, <u>Wilson Sonsini Goodrich &</u> <u>Rosati</u>, and <u>Natural Products Canada</u> — is offering free non-exclusive and limited exclusive licenses in an effort to foster rapid development of diagnostic and therapeutic tools to help neutralize the impact of COVID-19.

"The results from the coalition's first tests provide hope for controlling or reducing the severity of the coronavirus in its victims," says Hamlet Abnousi of Novobind, who initiated the coalition when his team reviewed some early COVID research that complemented their unique expertise in nanobodies*.

Nanobodies — specific antibodies found in llamas and sharks — help to identify targeted pathogens and cause an immune response. From a research perspective, llama nanobodies have many advantages over conventional human antibodies, including being roughly 1000 times cheaper to make, and having a much lower risk of enabling entry of the virus into unintended immune cells. Further information on the use of nanobodies can be found on the coalition's website at <u>CCC19ca</u>.

The coalition, whose members are donating their time and resources to the project, formed earlier this year to combine efforts around research and dissemination of novel data that can be used to expand academic research, diagnostics and therapeutic development.

"By sharing our results with the global research community, we aim to complement existing efforts and enable those that do not have access to blockbuster technologies," says Abnousi.

SignalChem, who developed the synthetic versions of the viral targets (antigens), and

Cedarlane, who facilitated the generation of the antibodies in the llama, are currently preparing for the next phase of the research with a second llama. They hope this design phase will be informed by the insights of the global research community take advantage of the free access to the 51 antibodies.

We've tried to make it as simple as possible for the research community to participate," says Lee Johnson, partner, patents and innovation at Wilson Sonsini Goodrich & Rosati, who filed the provisional patent for the coalition. "The intent is to ensure the sequences of the antibodies are not orphaned, while facilitating effective development of tools that would then be accessible to all COVID patients, regardless of ability to pay."

Research teams that want to access a license for the sequences will be asked to sign a pledge committing to the objectives of the coalition, which were created to ensure fair and equitable patient access to resulting products, regardless of economic means.

* Trademarked by Ablynx, otherwise known as single domain antibodies, Ilama antibodies, VHH, VNAR

Read the <u>original article</u> on Natural Products <u>Canada</u>.