

Nano Science, Technology and Industry Scoreboard

Canada Launches Biological Crowdsourcing Focusing on Nanobodies to Combat Coronavirus

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Canadian biotech companies coalition are joining forces in the fight against COVID-19 with an "open-source biology" model using nanobodies.

A group of Canadian biotech companies are joining forces in the war on COVID-19 with a unique open-source model using next-generation antidotes known as nanobodies.

"We're donating our resources to develop custom nanobodies for others to use," says Hamlet Abnousi, CEO and Co-founder of NovoBind Livestock Technologies (<u>NovoBind</u>), who initiated the collaboration. "It is our hope that others will take our work to create diagnostics and therapeutics."

The coalition of five companies will adopt an "open source biology" model (similar to open-source software) to make and disseminate their findings, encouraging the biological version of crowd sourcing.

Abnousi and his team recognized their potential to help after reading several peer-reviewed publications that clearly demonstrated the strong neutralizing effect of nanobodies on MERS, a member of the coronavirus family.

Nanotechnology in Battle Against Coronavirus ...

NovoBind will identify and share the nanobodies, which "stick" to and neutralize pathogens. The World Health Organization's recent list of experimental therapies, which includes conventional antibodies as well as the nanobodies, confirms their thinking.

"Our staff, Board, shareholders, and advisors immediately agreed that we had to do something to help," says Abnousi, whose company is one of only a few that specialize in this area. The intent is to ensure the potential of their technology for COVID-19 applications is accessible to everyone around the world, irrespective of their capacity to pay for breakthrough medications. NovoBind will not seek any financial benefit from this effort.

The coalition is focused on nanobodies due to their ability to act like guided missiles to specifically identify and stick to the coronavirus. Because nanobodies envelop the virus, they can be used to create diagnostic tools to detect the virus, or therapeutics to effectively neutralize it. Full details of the approach can be found at www.novobind.com.

Partnering with NovoBind in this coalition are <u>SignalChem</u>, who will create the synthetic version of the viral targets; and <u>Cedarlane</u>, who will facilitate the generation of the antibodies. A leading law firm, <u>Wilson Sonsini Goodrich & Rosati</u>, will advise on the intellectual property strategy to ensure that the resulting products are accessible to all countries around the world. <u>Natural Products Canada (NPC)</u> will support knowledge transfer to ensure developments from this initiative are integrated into global efforts against COVID-19.

Abnousi is heartened by the progress and creativity exhibited by many other research teams and hopes this coalition can add to their arsenal. "We're really proud to see trusted companies come together so quickly and enthusiastically to drive a critical solution."

Read the <u>original article</u> on Novobind.