

University of Waterloo, School of Pharmacy – Current COVID-19-related research projects (as of May 21, 2020)

Development of a DNA-based vaccine that can be delivered through a nasal spray. The vaccine will work by using engineered bacteriophage, a process that will allow the vaccine to stimulate an immune response in the nasal cavity and target tissues in the lower respiratory tract. Pharmacy professors, Roderick Slavcev and Emmanuel Ho along with Marc Aucoin, professor of chemical engineering are leading this research.

<https://uwaterloo.ca/stories/news/university-waterloo-developing-dna-based-covid-19-vaccine>

Study on fast tracking and reassigning existing drugs to treat COVID conducted by Professor Praveen Nekkar. Drug repurposing is the practice of determining new therapeutic uses for drugs that are already approved by regulatory agencies. Nekkar's lab has previous expertise in this area and has pivoted to address COVID. His team's work is showing promising early results and their findings will be published shortly.

<https://uwaterloo.ca/pharmacy/news/new-research-shows-diabetes-medications-could-treat-covid-19>

Prof William Wong is designing a COVID-19 model to predict the real prevalence and the undiagnosed proportion in Canada. He is also planning to conduct economic evaluations of various COVID-19 preventive strategies from a societal perspective.

Professors, Nancy Waite and Sherilyn Houle have a planned research project that examines pharmacists as COVID vaccinators. Their research project consists of 3 broad aims: (1) To identify the most effective distribution system to ensure pharmacies are able to access an adequate and timely supply of COVID-19 vaccine; (2) To determine pharmacies' reach, particularly related to rural, remote, and northern communities, to identify segments of the population who can access pharmacy-based vaccination services, as well as those that are unable to easily access these services; and (3) To explore and test innovative strategies to expand capacity to administer vaccines in pharmacies.