

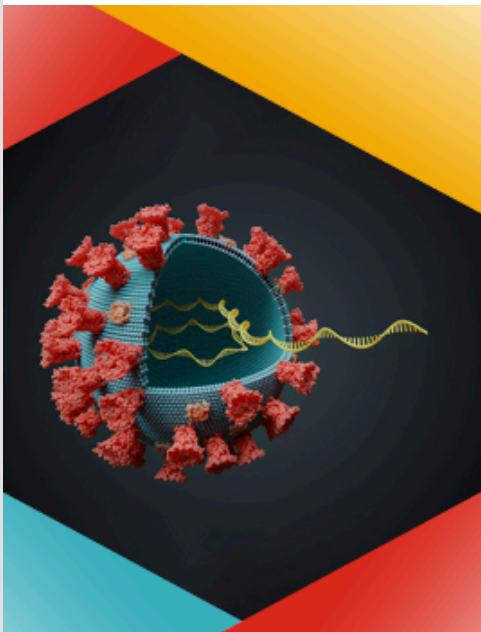


COVID-19 IMMUNITY
TASK FORCE

Spotlight on CITF-FUNDED RESEARCH



CITF Events



COVID-19
IMMUNITY
TASK FORCE

GROUPE DE TRAVAIL
SUR L'IMMUNITÉ
FACE À LA COVID-19



CanCOVID

in partnership with  CoVaRR-Net

Seminar Series | Panel Discussion

Omicron and other variants of concern: finding our way forward



February 23, 2022 | 11:30 a.m. – 12:30 p.m. EST

SAVE THE DATE!

For a panel discussion with CITF-funded experts researching variants of concern (VOCs), held in collaboration with the Coronavirus Variants Rapid Response Network (CoVaRR-Net).

Our multi-disciplinary panel of experts include:

- Dr. Anne-Claude Gingras, Lunenfeld-Tanenbaum Research Institute, University of Toronto; Functional Genomics & Structure-Function of

Variants of Concern Pillar Lead, CoVaRR-Net

- Dr. Jeff Wrana, Lunenfeld-Tanenbaum Research Institute, University of Toronto; Viral Genomics & Sequencing Pillar, CoVaRR-Net
- Dr. Mark Brockman, Simon Fraser University; Immunology & Vaccine Protection Pillar, CoVaRR-Net
- Dr. Ciriaco Piccirillo, Research Institute of the McGill University Health Centre; Immunology & Vaccine Protection Pillar Co-Lead, CoVaRR-Net
- Dr. Jun Liu, University of Toronto
- Dr. Marc-André Langlois, University of Ottawa; Executive Director, CoVaRR-Net

Our moderator will be Dr. Catherine Hankins of McGill University, Co-Chair of the COVID-19 Immunity Task Force.

[Learn More](#)



Seminar Series | Research Results & Implications

How long does immunity to COVID-19 last?

Waning immunity, boosters, and dosing intervals



We received so many thought-provoking questions from our participants that we couldn't get to them all during our seminar . . . so we had our experts respond in writing.

[Answers to your questions](#)

Watch the seminar on how long COVID-19 immunity lasts

Available Now: video of the fourth CITF/CanCOVID seminar series on waning immunity, boosters, and dosing intervals

[Watch the Video](#)



CITF-Funded Research Results

Latest Canadian Blood Services data reflect uptick in infections prior to Omicron surge

Remarkably, nearly all Canadian Blood Services blood donors sampled in November tested positive for antibodies against the SARS-CoV-2 spike protein. While this was mainly due to vaccination with at least one vaccine dose, seroprevalence from a prior infection with COVID-19 stood at 5.1%, higher than what was seen in previous months. In a subset of repeat donors, new infections occurred mostly in individuals not yet vaccinated. Breakthrough infections, on the other hand, remained infrequent during this period. These data were collected prior to the Omicron variant sweeping across Canada.

[Read More](#)

Study measures vaccine effectiveness against Omicron infection in Ontario

In a not yet peer-reviewed pre-print study led by CITF-funded researcher Dr. Jeff Kwong on behalf of the Canadian Immunization Research Network (CIRN), researchers evaluated the effectiveness of mRNA (or combined

mRNA and AstraZeneca's Vaxzevria) vaccines in preventing symptomatic infection and severe outcomes caused by the Omicron variant in Ontario. They found that three doses of a vaccine conferred excellent vaccine effectiveness (95% or more) against hospitalization or death for both the Delta and Omicron variants. When it came to vaccine effectiveness against symptomatic infection due to Omicron, while two doses of COVID-19 vaccines were initially 36% effective, a third dose increased vaccine effectiveness to 61%.

[Read More](#)

Longer intervals between Comirnaty (Pfizer) vaccine doses may produce better immune responses

In a CITF-funded study led by Dr. Deepali Kumar of the University Health Network, Toronto, researchers followed healthcare workers (HCW) who received the Pfizer Comirnaty vaccine. One group received their second dose after the standard 3-to-6-week interval; the others waited 8 to 16 weeks between doses. While all HCWs developed immune responses post-vaccination, those with a longer interval between doses had a higher number of antibodies and a higher neutralizing capacity against the Alpha, Beta, and Delta variants of SARS-CoV-2. The results are published in *Nature Immunology*.

[Read More](#)

Moderna vaccine achieves higher antibody levels than Pfizer-BioNTech: A study of hemodialysis patients

CITF-funded researchers Drs. Michelle Hladunewich and Matthew Oliver from Sunnybrook Health Sciences Centre compared antibody responses after two-dose COVID-19 immunization with mRNA vaccines in individuals undergoing hemodialysis. They found that at 6–7 weeks after the second dose, those who received Moderna's Spikevax elicited higher antibody levels than Pfizer-BioNTech's Comirnaty. Further, those vaccinated with Moderna sustained their antibody levels more than did those who received Pfizer, when measured 12 weeks after the second dose. The study is published in the *Canadian Medical Association Journal*.

[Read More](#)

Immune responses to mRNA COVID-19 vaccine in immune-deficient patients

A recent pre-print, that has not yet been peer-reviewed, by CITF-funded researchers Drs. Anne-Claude Gingras, Tania Watts, and Vinod Chandran of the University of Toronto studied the antibody and T-cell responses to SARS-CoV-2 mRNA vaccines in patients with a variety of immune-mediated inflammatory diseases (IMID) who were receiving immunomodulatory maintenance therapy. Most patients showed increased antibody and T cell responses after the first and second dose of mRNA vaccine, but those responses significantly decreased three months after the second dose. The study provides evidence of the need for a third dose of mRNA vaccine and for continued monitoring of immunity over time in this patient population.

[Read More](#)

Supplementary antibody testing accurately estimates population exposure rates to COVID-19

A study published in *PLOS ONE* by CITF-funded researcher Dr. Michael D. Grant, of Memorial University of Newfoundland, concludes that antibody testing is required in order to establish an accurate count of confirmed COVID-19 cases in the community. While PCR testing remains the most accurate method to detect active SARS-CoV-2 infection, it measures the presence of virus in the body, whereas an antibody test will determine whether a person was ever infected, either symptomatically or asymptotically. Since most asymptomatic people won't bother to get PCR tested, antibody testing is an effective method for getting a more accurate measure of COVID-19 exposure rates. The research shows that, in the absence of confirmatory PCR tests, antibody testing successfully identified the immune status of persons suspected of having contracted COVID-19.

[Read More](#)



CITF Announcement



February issue of the *CITF Monthly Review*: Available now!

Our latest edition features a question & answer with our experts on Omicron and other topics of concern, an international research review article on long COVID, updated national data from Canadian Blood Services, and highlights of the latest results from CITF-funded projects.

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