

Spotlight on CITF-FUNDED RESEARCH



CITF Events





Seminar Series | Research Results & Implications COVID-19 and older Canadians: Where are

we now?

🔂 October 18, 2022 | 2:30-4:00 p.m. EDT

REGISTER NOW FOR OUR SEMINAR NEXT TUESDAY

The COVID-19 Immunity Task Force (CITF) supports research projects looking at various aspects of COVID-19 infection and immunity in older Canadians. Our 10th *Research Results and Implications* seminar will assemble several CITF-funded researchers to update us on their latest findings and answer questions such as:

• How important are boosters for those aged 70+?

- Should older Canadians be masking, distancing, and limiting their social interactions indoors?
- Is the risk of getting COVID-19 higher if you're living in a long-term care (LTC) home, or, if you're 70+ living in the community?
- Will infection prevention and control measures implemented in LTC homes due to COVID-19 have a long-term positive impact in warding off other infections in these settings?
- Is it safe to put your loved ones in LTC homes these days in Canada?

Presentations from several CITF-funded studies will be followed by a panel discussion. Presenters will then take questions from the audience.

Moderator:

Samir Sinha, MD, DPhil, FRCPC, Director of Geriatrics, Mount Sinai and University Health Network Hospitals, Toronto; Provincial Lead, Ontario's Seniors Strategy; Associate Professor of Medicine, University of Toronto; Associate Professor of Medicine, Johns Hopkins University School of Medicine

Panelists:

- **Zabrina Brumme, PhD,** Associate Professor, Faculty of Health Sciences, Simon Fraser University; Director of Laboratories, BC Centre for Excellence in HIV/AIDS; CITF-funded researcher
- Andrew Costa, PhD, Schlegel Research Chair in Clinical Epidemiology & Aging and Associate Professor, Department of Health Research Methods, Evidence, and Impact, McMaster University; Scientific Director, St. Joseph's Centre for Integrated Care, Hamilton; CITFfunded researcher
- **Timothy Evans, MD, PhD,** Executive Director, COVID-19 Immunity Task Force
- Allison McGeer, MSc, MD, FRCPC, Professor, Department of Laboratory Medicine and Pathobiology, University of Toronto, and Senior Clinician Scientist and Infectious Disease Physician, Sinai Health System, Toronto; CITF-funded researcher
- Manish Sadarangani, BM, BCH, DPhil, Director, Vaccine Evaluation Center, BC Children's Hospital Research Institute; Associate Professor, Division of Infectious Diseases, Department of Pediatrics, UBC; Physician Lead, Family Immunization Clinic, BC Children's Hospital; CITF-funded researcher
- **Sharon Walmsley, MSc, MD, FRCPC,** Senior Scientist, Toronto General Hospital Research Institute; Professor, Department of Medicine, University of Toronto; CITF-funded researcher



CITF-Funded Research Results

Infection-acquired seroprevalence increased again in August: Canadian Blood Services

Omicron and its subvariants (BA.4 and BA.5) continued to spread in Canada in August. By the last week of August, 60% of blood donors had infectionacquired seropositivity, up from 56.5% at the end of July. Younger age groups continued to be the most affected, with over 75% of 17- to 24-yearolds showing they had had a previous SARS-CoV-2 infection. Almost all blood donors were found to be positive for anti-S antibodies, predominantly driven by vaccination.

Read more

Cytomegalovirus (CMV) does not prevent an antibody response to SARS-CoV-2 vaccination in older adults

A CITF-funded study published in the *Journal of Immunology*, showed that individuals who are seropositive for cytomegalovirus (CMV) (found in 60-90% of adults worldwide) did not have a higher incidence of COVID-19. Additionally, CMV seropositivity may alter the composition of naïve and memory T cells, but does not impede the durability of humoral protection or cellular memory responses after SARS-CoV-2 mRNA vaccination in people 65 years and older.

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Blood circulating protein differences among individuals with acute COVD-19

CITF-funded research published in *Clinical Proteomics* determined that severe COVID-19 is associated with significant changes in 69 immunerelated proteins. Of these, six proteins were different between males and females, potentially indicating fundamental sex-dependent differences in disease manifestations.

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SARS-CoV-2 neutralizing antibody titers are wellcorrelated with anti-spike antibodies

CITF-funded researchers published a paper in *Microbiology Spectrum* that demonstrated a correlation between measures of live viral neutralizing antibodies – the gold standard for evaluating the effectiveness of antibodies to block infection - and other less time-consuming and labour-intensive measurements of SARS-CoV-2 immunity. These data can be used to optimize scheduling for people to keep up-to-date with vaccination to maintain sufficient levels of immunity.

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Identifying who participated in a seroprevalence study is a crucial metric

In a study published in the *International Journal of Epidemiology*, the CITFfunded SeroTracker team contributed to showing that only 70% of individuals invited to participate in seroprevalence studies actually enrolled. This is problematic because the lower the participation rate, the more limited the representativeness of the results. Moreover, due to a lack of standardization, making valid comparisons between seroprevalence studies remains a challenge.

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COVID-19 infection prevention and control directives might be confusing for dental school students

A CITF-funded study, published in the *International Dental Journal*, reports significant discrepancies in COVID-19-related infection prevention and control (IPC) strategies across all dental school in Canada.

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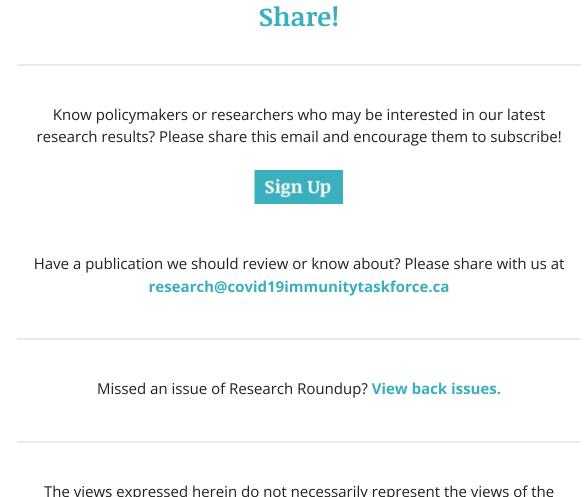
CITF Announcements

Largest study measuring extent of COVID-19 in Canadian children and teens now underway

Because the majority of COVID-19 cases among children and teens have been mild or asymptomatic, infection rates in this population are largely unknown. To address this knowledge gap, the Government of Canada and the Canadian Institutes of Health Research (CIHR), through the CITF, are providing \$2.6 million to conduct the largest serosurvey of children and youth to date in Canada for SARS-CoV-2. The study, called **C**OVID-19 seroepidemiology among children **U**sing **R**etrieved POPCOR**N** Site **L**eftover blood **S**amples (CURNLS), is led by Drs. Soren Gantt and Caroline Quach-Thanh, investigators at CHU Sainte-Justine Research Centre and professors at the Université de Montréal.

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