



COVID-19 IMMUNITY  
TASK FORCE

# Spotlight on CITF-FUNDED RESEARCH



## CITF Events



COVID-19  
IMMUNITY  
TASK FORCE

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



CanCOVID

Seminar Series | Research Results & Implications

## COVID-19 vaccine safety



May 5, 2022 | 11:30 a.m. to 1:00 p.m. EDT

## JOIN US NEXT WEEK - REGISTER NOW!

Our 7th CITF/CanCOVID research seminar brings together experts affiliated with the CITF to discuss vaccine safety – a topic of concern for everyone. Our presenters will report on:

- Results of ongoing vaccine safety monitoring in Canada, in both adults and children;
- Details about serious adverse effects in Canada, including their frequency after various vaccine doses;

- Measures to mitigate the occurrence of serious adverse events;
- The latest research on myocarditis and pericarditis;
- Vaccine safety in pregnant people;
- More!

Following the presentation, our experts will engage in a question-and-answer session with the attendees.

**Presenters include:**

- **Julie Bettinger, MPH, PhD**, Professor, University of British Columbia; Principal Investigator, Canadian National Vaccine Safety (CANVAS), Canadian Immunization Research Network (CIRN); CITF-funded researcher.
- **Scott Halperin, MD**, Professor, Dalhousie University; Principal Investigator, CIRN; member of the CITF Leadership Group and Chair of the CITF Vaccine Surveillance Working Party.
- **Jeff Kwong, MD, MSc, CCFP, FRCPC**, Senior Scientist, ICES; Scientist, Public Health Ontario; Professor, Department of Family & Community Medicine and Dalla Lana School of Public Health, University of Toronto; CITF-funded researcher.
- **Karina Top, MD, MSc, FRCPC**, Associate Professor, Dalhousie University; Principal Investigator, Special Immunization Clinic (SIC) Network at CIRN; and co-PI, Canadian Immunization Monitoring Program, ACTIVE (IMPACT) Project; CITF-funded researcher.

**And hosting on behalf of the CITF:**

- **Timothy Evans, MD, PhD**, Executive Director, COVID-19 Immunity Task Force

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## CITF-Funded Research Results

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**Transmission of SARS-CoV-2 infection within households**

In a study published in the *Canadian Medical Association Journal*, CITF-funded researcher Dr. Marc-André Langlois from the University of Ottawa and colleagues found that half of those residing in a household in which someone became infected with SARS-CoV-2 became infected as well. While adults were more likely to spread infection than children, children transmitted infection to roughly one-third of their household members. Children and adults were equally likely to be infected by the infected adult or child in their home.

[Read more](#)

## **Effectiveness of COVID-19 vaccines against hospitalization and death across Canada**

CITF-funded researchers Drs. Jeff Kwong from the University of Toronto, Gaston de Serres from l'Institut national de santé publique du Québec, and Mel Krajden of the University of British Columbia, found that two doses of mRNA or viral vector (Astra Zeneca) vaccines provide excellent protection against severe outcomes (hospitalization or death) from COVID-19. In a pre-print, not yet peer-reviewed, the study included more than 2.5 million community-dwelling adults in Ontario, Quebec, British Columbia, and Manitoba, and covered the period before the emergence of the Omicron variant.

[Read more](#)

## **Antibody trends in the first 11 months of 2021: Canadian Blood Services**

In a paper published in *Microbiology Spectrum*, researchers with Canadian Blood Services (CBS) point to the changing patterns of infection-acquired and vaccine-induced seroprevalence, observed between January and November 2021. Seropositivity from infection remained low overall, albeit disproportionately higher among racialized donors and those aged 17-24. Antibodies targeting the spike protein (against which vaccines were designed) increased dramatically in July, following widespread vaccine roll-out, and started to wane come September. The study is led by Drs. Sheila O'Brien, Chantale Pambrun, and Steven Drews. CBS has routinely tested samples from blood donors to provide data about COVID-19 immunity, which have been used to inform public health policy at the national and provincial levels.

[Read more](#)

## Evaluation of immunity after COVID-19 vaccines – the PREVENT-COVID study

Research from the CITF-funded **PREVENT-COVID** study by Drs. Agatha Jassem and Manish Sadarangani from the University of British Columbia confirms the findings of other studies and reinforces the effectiveness of dried blood spot (DBS) tests as a simple and accurate alternative to blood tests. The non-peer-reviewed results, in a poster presented at the annual meeting of the *Canadian Association for Clinical Microbiology and Infectious Diseases (CACMID)*, found high levels of spike-specific SARS-CoV-2 IgG antibodies in adults up to four months following a two-dose vaccine regimen.

[Read more](#)



## Preprint to Publication

### Vaccination is more effective than prior infection at neutralizing variants of concern

This paper, published in *Med*, characterizes the ability of antibodies acquired via vaccination, infection, or both, to neutralize Omicron. CITF-funded researchers from the Wellness Hub study in long-term care, Drs. Sharon Straus, Allison McGeer, and Anne-Claude Gingras, all at the University of Toronto, show that previous infection alone does not create sufficient levels of neutralizing antibodies to protect against Omicron *in vitro*. Triple vaccination, however, was associated with greater levels of neutralizing antibodies against several variants of concern, including Omicron.

[Read more](#)



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