

# Spotlight on CITF-FUNDED RESEARCH



### **CITF Events**



Seminar Series | Research Results & Implications

COVID-19 vaccine safety





Thank you for making our seventh *Research Results & Implications* seminar with CanCOVID such a success

Last week, more than 200 people attended our seminar, *COVID-19 vaccine* safety.

Thanks to all who participated and a big **thank you** to our presenters: **Dr.** 

Julie Bettinger of the University of British Columbia; Dr. Scott Halperin of Dalhousie University; Dr. Jeff Kwong of the University of Toronto; Dr. Karina Top of Dalhousie University; and Dr. Timothy Evans, Executive Director of the COVID-19 Immunity Task Force.

See the presentation



#### **CITF-Funded Research Results**

# More than a quarter of Quebec adults had recently acquired, infection-related antibodies to SARS-CoV-2 by mid-March: Latest data from Héma-Québec

A recent serosurvey conducted by Héma-Québec estimates that 27.4% of adults in the province developed infection-acquired antibodies to SARS-CoV-2 between January and mid-March 2022, during the first Omicron wave. Based on testing of plasma from donors enrolled in the CITF-funded PLASCOV project, infection-acquired seropositivity rose steadily throughout the sampling period: from 9.7% in mid-January to 27.4% by mid-March. Donors aged 18 to 24 had the highest levels of infection. These latest blood donor data reveal the full extent of SARS-CoV-2 infections, which are more than double that reported by PCR-confirmed case counts.

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**Preprint to publication** 

## mRNA vaccines generate antibodies in saliva

A paper now published in *Mucosal Immunology* examines whether mRNA vaccines induce antibodies in saliva. The study, partially funded by the CITF and led by University of Toronto researcher Drs. Jennifer Gommerman and Sharon Straus from Unity Health Toronto, suggests that vaccinated individuals elicit a modest immunoglobulin A (IgA) response in the saliva, but a robust immunoglobulin G (IgG) response, which mirrors what is found in blood. Low levels of serum IgA against SARS-CoV-2 in vaccinated individuals, which correlates with saliva IgA, was found to be associated with breakthrough infections. As the respiratory tract is the first site of contact for airborne pathogens such as SARS-CoV-2, the presence of protective IgA antibodies in the saliva helps in fighting off infection.

Read more

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

A paper now published in *JCI Insight* by CITF-funded researchers Drs. Anne-Claude Gingras, Tania Watts, and Vinod Chandran of the University of Toronto provides evidence of the need for a third dose of mRNA vaccine in patients with immune-mediated inflammatory diseases (IMID). The team studied antibody and T-cell responses to SARS-CoV-2 mRNA vaccines in patients with a variety of IMIDs 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 had significantly decreased three months after the second dose.

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