COVID-19 IMMUNITY TASK FORCE

Research Roundup

Your weekly review on COVID-related research

International Research Review

SARS-CoV-2 variants get colourful names

Despite its unique proofreading mechanism, errors can occur every time the SARS-CoV-2 genome is copied, and mutations arise. New variants are reported almost every day. With a universally agreed upon naming system, scientists are conceiving new creative and original names. These vary from complex nomenclature to catchy names like Nelly or Pelican. We dissect their origins in this blog post.

Read Summary

Study finds several new coronaviruses with mutations in the same position

Numerous newly identified coronavirus variants have amino acid substitutions in the same position of its Spike protein. Variants identified in the US were named after American birds. These US-derived variants were proposed to arise independently but were also found in very distant countries such as Egypt to Australia. This raises the possibility that they provide some evolutionary advantage to the virus, but the significance of this change is not yet clear.

Read Summary

What we learned from Sweden's decision to keep schools open during the first wave of the COVID-19 pandemic

Going against the grain last spring, Sweden did not close schools for students in grades 9 and lower. In fact, in-class learning continued without any major intervention to control the spread of SARS-CoV-2 such as mask wearing or quarantine. Swedish researchers have found that their country's decision to keep schools open doubled teachers' risk of infection and significantly increased their partners' risk as well. Meanwhile, a modelling study conducted in France suggests that a phased reopening approach and adequate PPE are the best avenues to ensure a safe return to in-class instruction. Although distinct, both studies indicate that the impact of school closures is not symmetric across educational settings.

Read Summary

Spotlight on CITF-funded Research

The power of IgM in the immune response against SARS-CoV-2

Researchers from Université de Montréal and Héma-Québec are highlighting the importance of antibodies made early on in the infection in SARS-CoV-2 neutralization. Their results reveal the need to reassess antibody-based COVID-19 therapies, as some of the current ones could impair IgM production.

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Variability among assays complicates serological surveys interpretation

Researchers from Public Health Ontario and the University of Toronto found that there was a drop in the number of samples with detectable antibodies over time using the Abbott Architect SARS-CoV-2 IgG assay, but not when using the Ortho-Clinical Diagnostics VITROS Anti-SARS-CoV-2 IgG test. The study provides evidence that there exists potentially significant variability in assays, which may give the impression of waning protection against COVID infection.

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SARS-CoV-2 seroprevalence among blood donors after the first COVID-19 wave in Canada

Canadian Blood Services (CBS) has been conducting a monthly nationwide study since May 2020 to detect antibodies that recognize SARS-CoV-2. Results from CBS's initial survey, conducted between May 9th and July 21st, 2020 and published in the journal Transfusion, showed 552 of the 74,642 donors tested had detectable antibodies, which gave an adjusted seroprevalence of 7 per 1000 donors.

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Request for Applications

Successful applicants are being notified by

Wednesday

In this fast-tracked process, Canada's Vaccine Surveillance Reference Group, in partnership with the CITF, and with the support of the Public Health Agency of Canada, has invited the Canadian research community to apply for funding to assess the safety and effectiveness of current and future SARS-CoV-2 vaccines deployed in Canada. The deadline to submit your interest was last Monday and we received a number of excellent step one proposals. We are holding a proposal preparation workshop on Thursday for all those invited to continue the application process in step two.

Learn More

Share your Research

Have a publication we should review or know about? Please share with us at **research@covid19immunitytaskforce.ca**