

# THE INSIDER

## A MESSAGE FROM YOUR STUDY DOCTORS

This pandemic has turned the world upside down. Returning to the life we once knew will require answers to the most pressing questions on COVID-19. That's our primary motivation in the McGill Clinical Genomics program helping to create the largest Biobank in Canada and second largest across the globe. We want to enable Canadian researchers - and others around world - to better understand the disease, how it spreads, and why it seems that some people are more susceptible to it than others. Questions about immunity also continue to weigh on the medical community as we brace ourselves for a potential second wave.

Clearly, this is no small task. We recognize that none of this would be possible without you - your willingness to help and contribute to science. On behalf of the entire research team - thank you. Although we're in this for the long haul, if we remain focused on our goals and capitalize on our momentum, we will get through this sooner rather than later. Together, we will beat COVID-19.

Be well,



Dr. Brent Richards Dr. Jonathan Afilalo

SCIENTIFIC DATA >

## CURRENTLY INVESTIGATING: OAS1

Recently, data from patients in the JGH COVID-19 biobank were used to make an exciting discovery! Our team found that patients with more of a certain protein their blood were less likely to become very ill with COVID-19.

We looked at the genetics of thousands of people to see if certain genes played a role in COVID-19 outcomes. One gene in particular, called OAS1, does seem to play a role in the body's ability to fight COVID-19. If you have more OAS1 gene expression you are more strongly protected against severe COVID-19 outcomes including death, invasive ventilation, hospitalization and susceptibility.

What does the protein that the OAS1 gene creates, do? This protein helps the body to defend against RNA viruses (like COVID-19), by causing the breakdown of RNA and also by preventing the virus from replicating.

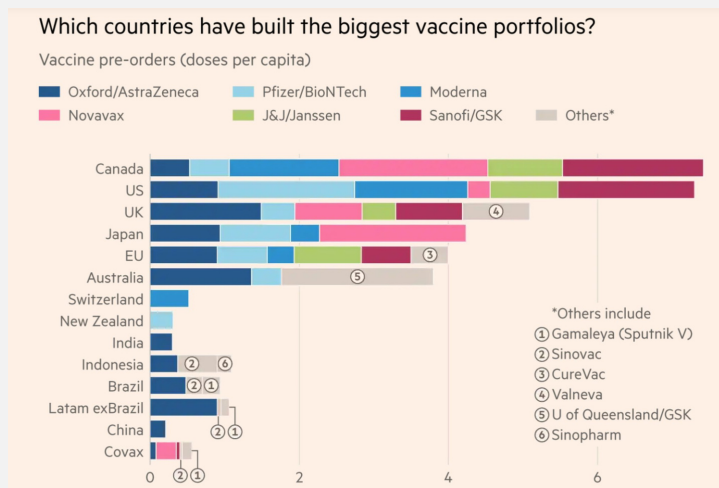
What can we do with this information? There are medicines that can increase the amount of the OAS1 protein. These drugs should now be tested to see if they can help in the treatment of COVID-19!

A more detailed version of article can be found here: <https://tinyurl.com/y2vvegbf>

NEWS >

## VACCINES, VACCINES, VACCINES!

Finally some good news! As of mid-November there are three vaccines that have shown very promising results in preventing COVID-19 infection. Vaccines from AstraZeneca, Moderna, and Pfizer/BioNTech all seem to be effective vaccines. All have applied or will shortly apply for FDA emergency use authorization and will start to become available in the coming months. Canada has ordered enough of these vaccines for every Canadian. These vaccines will likely be first offered to society's most venerable populations (The elderly, those with pre-existing conditions, etc.) as well as healthcare workers. Also encouraging is that the Pfizer/BioNTech vaccine showed an encouraging 94% efficacy in those aged 65 years and older!



STATS >

## THE JGH NUMBERS AT-A-GLANCE

