

## **SHAWL STUDY - CHANGE FROM MANUAL TO AUTOMATED ANTIBODY TESTING**

We are writing to let you know that we will be moving from manual to automated antibody testing in the SHAWL study.

The **UPSIDE OF THIS CHANGE** is that the automated platform tests for three different markers of infection and provides more information to researchers and study participants. **We will use the automated platform to analyze ALL previously submitted samples AND ALL future samples.**

The **DOWNSIDE OF THIS CHANGE** is that it may take up to 1 month to obtain and post your blood results. **We will still collect samples on the same schedule.**

## **UNDERSTANDING YOUR AUTOMATED BLOOD RESULTS**

Your blood samples will be analyzed for IgG antibodies to SARS-CoV-2, the virus that causes COVID-19, using a research-grade test. The test consists of **THREE different assays** testing for antibodies to the (1) spike protein (S), (2) the receptor binding domain (RBD) of spike and (3) the nucleocapsid protein (N). **In general, the testing is considered positive if at least 2 of 3 assays show antibodies are present. However, other patterns may appear and the study team will be happy to help you interpret your results.**

**Antibody response after vaccination (Pfizer, Moderna, Astra Zeneca):** Vaccines currently administered in Canada contain only the spike protein so a positive antibody response is expected for the spike (S) and receptor binding domain (RBD) assays, but NOT for the nucleocapsid (N) assay. In general, after vaccination you should expect antibodies to S and RBD to appear a few weeks after your first vaccination (antibodies to S may appear earlier than those to RBD).

**Antibody response after COVID-19 infection:** After COVID-19 infection, antibodies to the three proteins appear a few weeks after infection; antibodies to the N protein only occurs after a COVID-19 infection (as opposed to vaccination).

### **Other patterns of antibody response:**

- (i) A positive result for only one of the three antigens is considered negative overall because it is rare to mount a response to only one of the antigens. This may reflect cross-reactivity with pre-existing antibodies to other viruses or other possible causes.
- (ii) It is not known how long antibodies persist after infection or vaccination – negative results may occur if antibody levels have fallen from previous higher levels.

This antibody testing in the SHAWL study is intended for research purposes only and is not performed for the purposes of diagnosis, prophylaxis or treatment. We do not yet know the extent to which the presence of antibodies means you have immunity to future SARS-CoV-2 infection so we recommend you follow public health recommendations, including physical distancing, use of personal protective equipment and hand washing even if antibodies are identified in your blood.

## **THANK-YOU FOR PARTICIPATING IN THE SHAWL STUDY!**