Dear editor,

Herewith we submit our manuscript entitled, **Persistence of antibodies to SARS-CoV-2** over the first seven months in relation to symptoms in a nationwide prospective study, for publication in Clinical Infectious Diseases.

We present unique data of a representative nationwide cohort with a follow-up time of 7 months post onset of symptoms of infection with SARS-CoV-2. Our data explain why some reports conclude that antibodies to SARS-CoV-2 wane rapidly whereas others report the persistence of antibodies. We provide substantial evidence that 92% of the persons in the general population still have IgG antibodies for at least 7 months after infection. Strikingly, antibody concentrations are higher in persons with significant accompanying symptoms such as fever and dyspnea. Since IgG decay is much slower than it's biochemical half-life, and that the antibodies develop increased binding strength, lead us to conclude that the majority of infected persons, also those with mild symptoms, develop cellular and lasting humoral immunity to SARS-CoV-2. These data help to understand the development of protection in the general population.

All authors have significantly contributed to the manuscript and approve of the manuscript as presented with this submission. None of the data in this manuscript has been presented, published or submitted elsewhere. We will pay for the costs of reproducing figures in color.

We recommended the following independent reviewers:

 5.1.2e
 5.1.2e
 @ohsu.edu, for track record on duration of antibody responses to viruses

 5.1.2e
 @cdc.gov, for expertise in disease transmission and serosurveillance

 5.1.2e
 @mayo.edu, Head of the Vaccinology Research Group, expert on multiple virological infections and serology

- <u>5.1.2e</u>, <u>5.1.2e</u> @redcross.org</u>, authored multiple articles about SARS-CoV-2 and antibodies

- 5.1.2e 5.1.2e , 5.1.2e <u>@bristol.ac.uk</u>, Expert in vaccination and transmission of respiratory viruses

We hope to have informed you sufficiently and that our manuscript is deemed suitable for publication in Clinical Infectious Diseases.

Kind regards on behalf of all authors,







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