

Given the critical, but largely neglected, role of natural immunity in our immune defense against Covid-19 and CoV in general, it is vital that

i) asap the feasibility of a rapid diagnostic fingerprick test that reliably detects the presence of S-specific Abs in the blood is investigated. As such Ag-specific Abs can outcompete natural antibodies (sIgM) for binding to Covid-19, a such rapid diagnostic assay could be instrumental in enabling variant-nonspecific innate immunity in healthy individuals (see previous communication on LinkedIn). It has been documented that S-specific Abs in asymptotically infected subjects are short-lived and are no longer detectable 8 weeks after infection. It may well be that a few weeks after infection, their interference with Nabs becomes negligible. Knowing they are (sufficiently) seronegative would allow healthy people to get back to a normal life, despite the pandemic. It would merely require them to self-test on a regular basis, especially after contact with potential asymptomatic carriers (including vaccine recipients). Normal exposure would allow them to train their innate immune system and hence, to keep it in excellent shape. As already mentioned on several occasions, our innate immune system is capable of eliminating Covid-19, including all its highly infectious variants.

ii) asap monoclonal therapeutic Nab is developed to protect all vulnerable people (i.e., all people with weak innate immunity [e.g., nonvaccinated elderly] or the innate immunity of whom is being bypassed by S-specific antibodies of low affinity [e.g., asymptotically infected subjects or those who only got a single shot of a 2-dose vaccine]).

This approach would have several benefits in comparison to monoclonal conventional antibodies: (i) NAb would be cost-efficient as they could be directly isolated from donor volunteers which would leave the immunisation of mice and other laboratory animals unnecessary. (ii) NAb have been demonstrated to be oligo-specific, so by binding to multiple antigens a single therapeutic NAb could be applied in the treatment of multiple diseases. (iii) NAb that have been investigated so far did not show to bind to healthy tissue or native forms of their target antigens, suggesting less therapeutic side effects. Many individuals possess antibodies directed against common epitopes in highly mutating viral infections, like influenza and HIV.

“These, so-called “broadly neutralizing antibodies” share some characteristics with NAb (20, 21). Antibodies binding previous versions of the viral strain consist of about 0.01% of the antibodies raised after infection or vaccination and react with all variants of the virus and thus appear to be multi-specific. Such antibodies might constitute passive vaccines against non-mutable common structures in otherwise highly mutating viruses. Since their initial discovery early 1960s, NAb were found in every vertebrate species investigated: mammals (2), birds (32, 33), fish (34, 35), and reptiles (36). Nevertheless, NAb have been regarded as contradictive with established immunological dogmas, but gradually receive more attention in main stream immunology.”

Please do read about natural Abs (IgM) en Covid-19. You'll find the references under Topic 1: Natural antibodies (B-1A cells, sIgM, natural Abs & innate immunity to CoV and Covid-19) in [my previous document](#).

Author: Geert Vanden Bossche, DVM, PhD (March 16, 2021)

www.linkedin.com/in/geertvandenbossche - www.geertvandenbossche.org