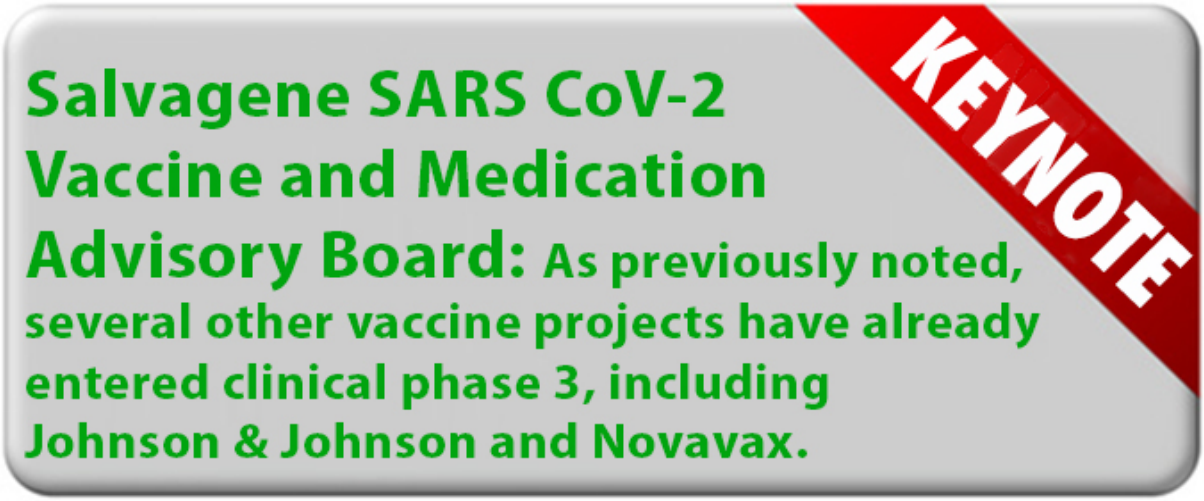
Salvagene GROUP

Business Unit: SARS-CoV-2 Task Force
Keynote: #59

January 2021



Dear Premium Customers,

More information on vaccine projects is expected in the coming weeks, in particular from Novavax, which has just published its efficacy data. In a British trial, Novavax showed an efficacy of 89.3%. The vaccine was tested on around 15,000 volunteers, which is significantly fewer than the sample for BioNTech. The most important detailed data have not yet been published, so we prefer to reserve judgment for the moment.

As we have indicated on our Salvagene Vaccine and Medication Advisory Board timeline and in our most recent Keynote (#58), we do not expect any further projects to be registered for approval in the next few weeks. Consequently, we expect the Novavax vaccine to be submitted for approval during the summer or, at the latest, before the anticipated October wave.

The announcement from Novavax was quickly followed by a release of preliminary data from Johnson & Johnson showing that their single-shot vaccine had a lesser efficacy.

In terms of the technology involved, Novavax is a highly interesting project. Unlike the mRNA vaccines from BioNTech and Moderna and the vector-based vaccines such as AstraZeneca, this one is protein based. It consists of a genetically engineered variant of the virus's spike protein combined with a special vaccine booster. From a purely scientific perspective, this is a novel approach. It has one small disadvantage compared to its mRNA counterparts in that it is a more time-consuming process to adapt it to mutant variants.

The main advantage of the vaccine projects that will reach maturation in the next few months is that their clinical phase 3 will include testing against the mutants already detected. This is one of the reasons why we have so far been reluctant to endorse vaccination across-the-board. We are working on the assumption that the first vaccines to emerge may eventually turn out not to have been the best available. If the individual circumstances of our clients permit, we think it is better to wait and see how the new vaccines and the modified versions of the existing vaccines perform against mutants that are beginning to appear. In the case of Novavax, we can reasonably assume that it has a good efficacy against the B.1.1.7 variant but less so against the South African variant. We cannot make any conclusive pronouncement at the moment because the latest vaccine candidates will continue to be tweaked in clinical phase 3, and the virus will also continue to develop new mutant forms.

Interestingly, the trial in South Africa which recruited 4,000 volunteers produced an efficacy rate of around 50% which was not all that different from the rate for people who had already endured one infection.

We regret to say that having a history of SARS-CoV-2 offers relatively little protection against reinfection with the new mutants. This is why we have introduced a log system for recording the details of any infection caught by our clients in order to be sufficiently prepared for potential multiple infections, which may still occur even after vaccination.

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Unfortunately, it is a biological fact that the more vaccinations are given, the more likely it is that further virus variants will appear. We do not know for certain whether individuals who have had a previous infection or have been vaccinated can still be infected by the new virus variants that have appeared. It also remains unclear whether mutation of the virus will necessitate revaccination, how long immunity lasts and whether or when revaccination will be required.

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