

Review of: "Implications of the SARS-CoV-2 spike protein interaction with type-1 macrophages via $\alpha 7$ -nAChR."

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Potential competing interests: The author(s) declared that no potential competing interests exist.

The current preprint introduces an interesting hypothesis although based almost solely on the author's own *in silico* data. The interactions between a conserved cryptic epitope of SARS-CoV-2 spike glycoprotein protein and $\alpha 7$ -nicotinic receptor on type-1 macrophages are proposed to suppress the production of pro-inflammatory cytokines and modulate the immune response. The authors also provide a recommendation of stimulating with receptor agonists along with administration of antibodies and targeting epitope instead of the entire S-protein.

From my point, this manuscript falls into a short commentary rather than a full-size review.

The title sounds quite a vague and somewhat speculative. Abstract is exceedingly long.

The manuscript needs to be structured and each section named accordingly. For instance, first paragraph is supposed to belong to the introduction, while paragraphs 2-3 mostly cover the immunological aspects of COVID-19 infection.

The number of references used is redundant, with some of them simply reiterating each other.

The discussion part is very limited and in fact, looks more of the concluding remarks with some guidelines for vaccine optimization.

The more details on biochemistry of the specific receptor along with the antibodies discussed should be provided.

In summary, I cannot recommend the manuscript for publication as a review or mini-review. It can be considered as a commentary upon resolving all the aforementioned issues.