

Review of: "Effects of the SARS-CoV-2 Spike protein on in vitro aggregation of alpha synuclein- probable molecular interactions and clinical implications"

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Potential competing interests: No potential competing interests to declare.

This is an interesting work. I am not sure however if it can be called an article. It contains only one in silico and one in vitro experiment which was supported by basic statistical analysis. To make conclusions, authors should perform wider research. At present, many important information is missing. For example, the source of the protein. Were they expressed and purified in house? Were the samples homogeneous or could they contain some contamination? The authors performed control experiments, but in my opinion another control is necessary. Aggregation should also be evaluated in the presence of neutral protein. Now it is not known whether the observed effect is Spike protein- specific or whether the aggregation kinetic is altered by presence of any polypeptide chain. On top of that, I would at least expect to see if the potential effect is dependent on the concentration of Spike protein.

Finally, I would like to comment on the form of the work. It is true that the abstract and the introduction sound very similar, while they should not. Also fragments like the beginning of section 2.1 are very similar to what can be found on the [10.1038/s41596-020-0312-x](https://doi.org/10.1038/s41596-020-0312-x). Authors should put more effort to prepare this work according to art.