

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.

Chakrabarti and co-authors reported that SARS-CoV-2 Spike protein could interact with alpha synuclein in vitro, and implying that alpha synuclein aggregation mediating neurodegenerative syndromes after COVID-19 vaccination. I have some questions, that should be addressed.

1. The authors say that there have also been reports of worsening of Parkinsonian symptoms, new onset movement disorders and even rapidly progressive dementia following COVID-19 vaccination using different vaccine types. So, whether incubated α -synuclein (10 μ M) with different types of COVID-19 vaccination in vitro, the aggregation phenomenon could also be observed? This is very important.
2. The first sentences in Abstract and Introduction are same, please avoid this cases as possible.
3. The statistical analysis is missing in Fig. 2. Please add the F, P value, and the statistical method used.
4. Why the concentration of α -synuclein (10 μ M) is used, is there any reference?
5. "-synuclein" should be " α -synuclein" in Discussion section, Paragraph 3.