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.

I cannot comment on the docking experiments except to say that other authors as well as the present investigators have identified potential interacting segments. I would suggest that the in vitro interaction experiments be performed at higher concentrations of the S protein to determine if there is a concentration effect. It is interesting that other authors have not seen elimination of the lag period when they incubated S with AS. It might also be worthwhile to study the amyloidogenicity of the S protein itself under various conditions of incubation and salt concentration since others have suggested such a relationship. If S “seeds” AS aggregation it may have intrinsic amyloidogenicity. Appended are 3 refs that should be examined and cited in your presentation.

A comprehensive mini-review on amyloidogenesis of different **SARS**-**CoV**-**2** proteins and its effect on **amyloid formation** in various host proteins.Seth P, Sarkar N.3 Biotech. 2022 Nov;12(11):322. doi: 10.1007/s13205-022-03390-1. Epub 2022 Oct 13.PMID: 36254263

Moderate Binding between Two **SARS**-**CoV**-**2** Protein Segments and α-Synuclein Alters Its Toxic Oligomerization Propensity Differently.Mesias VSD, Zhu H, Tang X, Dai X, Liu W, Guo Y, Huang J.J Phys Chem Lett. 2022 Nov 17;13(45):10642-10648. doi: 10.1021/acs.jpclett.2c02278. Epub 2022 Nov 10.PMID: 36354180

Effect of an Amyloidogenic **SARS**-**COV**-**2** Protein Fragment on α-Synuclein Monomers and Fibrils.Jana AK, Lander CW, Chesney AD, Hansmann UHE.J Phys Chem B. 2022 May 26;126(20):3648-3658. doi: 10.1021/acs.jpcb.2c01254. Epub 2022 May 17.PMID: 35580331