

Review of: "Proposal to Explain the Cause of Long COVID Based on the Concept of Host Factor Variants"

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Potential competing interests: No potential competing interests to declare.

The paper aims to describe the cause of long Covid by considering some host cellular immune variants such as major histocompatibility complex polymorphisms. It deals with a relevant topic and makes a contribution to the understanding of the physiopathology of long Covid syndrome.

Anyway, the manuscript should be better organized as it contains some confused aspects that may need to be improved and strengthened by added minor reviews as follows:

INTRODUCTION

The paper seems to be a narrative review.

Thus, criteria for the selection of included papers should be clarified in the text.

THE ROLE OF MACROPHAGES AND DENDRITIC CELLS AS THE ANTIGEN-PRESENTING CELLS.

- "There are reports target cells of particular viruses": please include a reference.
- "does not need...of the particular viruses": what do you mean? Please explain better.
- "with more phenotypic forms, so far DCs The other two forms...are pDCs and mo-DCs": The physiologic role of M1, M2, CD1 pDCs and moDCs, respectively, is not clear. Please explain. Also, explain the possible role of the different cellular subpopulations in Covid-19 infection.

CONCLUSION

- "In conclusion...": you should describe your conclusions in a separate paragraph.
- "This article proposes": the proposal coming from this review and its main point is that MHC gene alleles and their polymorphisms, rather than the SARS-COV-2 genome in peripheral blood or white blood cells, are predictable for long Covid-19 infection. Please expand this statement.