

Peer Review

Review of: "Long Covid, the Gut, and Autoimmune Skin Diseases: A Novel Therapeutic Approach"

Anju Kaushal¹

1. Independent researcher

These recommendations are for the manuscript version received on 27 Dec 2023.

Very well and thoroughly written, the manuscript provides clarity of the context of autoimmune disorders and Long COVID. However, there are some points where the criticality of the subject is not explained, except by providing dual meanings. Please check the recommendations below:

- Abstract: Line "This review suggests..... Steroids."

Avoid using words having "no meanings" like: etiologic, pre-biotic ?

- Figure 2 is directly taken from the published article-
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4633446/>.

Is there any other way to make it more explanatory while keeping Long COVID-19 as the subject of interest? Alternatively, authors should generate their own diagram depicting the effects of these monoclonals, and COVID-19 will add more value.

- CD147 should be denoted as an antigen / or subunit determinant that acts as a receptor is used for Plasmodium falciparum entry.
- Prevention and Therapy: D-Mannose- 1st paragraph: Authors might like to rework the line: " This is important as the immune function..... impacts cytokine prominence in LC."
- D-Mannose: Immune dysfunction in COVID-19 can't be explained without CD147. Most of the studies were performed in cells (in vitro).
- D- Mannose section: Doesn't explain its functions and contributing properties! The written text is a kind of drift from the actual objective. There are 3-4 paragraphs that are not related to the subtitle D-

Mannose.

- D-Mannose- Contradictory statements in paragraph 2 : “ All $\alpha\beta$ T cells express surface CD147. $\gamma\delta$ T cells do not [76] . When CD147+ T cells decrease (AIDS, Covid-19), absolute numbers of CD147- $\gamma\delta$ T cells increase [77]” . Avoid such affirmative text not explaining the specificity for a particular antigenic determinant.
- Figure 1: Needs more explanations of the abbreviated components.
- Increase and decrease in the metabolite quantity in AD should be mentioned as higher or lower in ratio, being responsible for developing that particular syndrome. For example, Kynurenine and Tryptophan.
- Figure 3: Vitamin D regulates the T-cells by boosting innate and adaptive responses. Authors should make their own diagram and also present the scenario of autoimmune disorders to be controlled by providing the references. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5787678/>

This reference is taken from the article revealing that no vitamin D deficiency was observed in predicting hepatic fibrosis, or can explain contradictory statements.

- Figure 4: Explain the figure abbreviations.

Declarations

Potential competing interests: No potential competing interests to declare.