

Review Form 1.7

|                          |   |
|--------------------------|---|
| Journal Name:            | Journal of Advances in Medicine and Medical Research                      |
| Manuscript Number:       | Ms_JAMMR_110786   |
| Title of the Manuscript: | Lectin pathway and complement activation in COVID-19: A Systematic Review |
| Type of the Article      | Review Article  |

PART 1: Review Comments

|  |                    |   |
|--|--------------------|---|
|  | Reviewer's comment | Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here) |
|--|--------------------|---|

## Review Form 1.7

|   |  |  |
|---|--|--|
| <p><b><u>Compulsory</u></b> REVISION comments</p> <ol style="list-style-type: none"> <li><b>Is the manuscript important for scientific community?</b><br/>(Please write few sentences on this manuscript)</li> <li><b>Is the title of the article suitable?</b><br/>(If not please suggest an alternative title)</li> <li><b>Is the abstract of the article comprehensive?</b></li> <li><b>Are subsections and structure of the manuscript appropriate?</b></li> <li><b>Do you think the manuscript is scientifically correct?</b></li> <li><b>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></li> </ol> <p><b><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></b></p> | <ol style="list-style-type: none"> <li>Yes, The study is important because it elucidates the role of the lectin pathway in the complement system during COVID-19 infection, offering valuable insights into immunological mechanisms and contributing to the understanding of the uncontrolled inflammatory response observed in severe cases.</li> <li>The title needs to be revised to mention 'Lectin binding' and also at the end 'review on immunology mechanisms or inflammatory response' for visibility and attracting greater set of audience.</li> <li>For the abstract, the authors should consider adding a brief sentence about potential avenues for future research.</li> <li>Yes, the manuscript follows the correct structural outline.</li> <li>Yes, this study is scientifically sound as it follows the rigorous PRISMA guidelines, employs the PICOS strategy, and uses the Checklist Hawker to assess study quality and bias. The findings, based on a systematic review of 11 relevant studies, provide consistent evidence of the association between lectin pathway activation, complement system dysregulation, and the severity of COVID-19, contributing valuable insights into the immunological mechanisms underlying the disease.</li> <li>References looks sufficient.</li> </ol> <p>Other evaluation authors need to do get their manuscript published:</p> <p>Additional figure or table with specified range or quantitative measure of MBL levels observed in patients with COVID-19 to elucidate the direct impact of elevated MBL levels on the activation of the lectin pathway.</p> <p>In introduction: Provide more information on the observed complement component depositions in affected organs, discussing their potential role in tissue injury and their correlation with disease severity.</p> <p>In results and discussion; clarify the nature of complement activation products observed in patients with COVID-19, specifying which components are elevated and discussing their implications in the context of disease severity, supplemental oxygen need, and mortality rates.</p> <p>Also, elaborate on the mechanisms leading to hyperactivation of the complement cascade due to the interaction between SARS-CoV-2 N proteins and MASP-2, providing insights into how this hyperactivation contributes to the severity of the disease.</p> |  |
| <p><b><u>Minor</u></b> REVISION comments</p> <ol style="list-style-type: none"> <li><b>Is language/English quality of the article suitable for scholarly communications?</b></li> </ol>   | <p>Yes, authors keep constant scientific language throughout the manuscript. There are some minor revisions,</p> <ol style="list-style-type: none"> <li>Elaborate on the PRISMA strategy briefly, and mention any specific criteria used in the study selection process.</li> <li>Detail the implications of the interaction between VL recognition proteins and SARS-CoV-2 virus proteins in terms of complement system activation as per Eriksson et al (2020).</li> </ol>   |  |
| <p><b><u>Optional/General</u></b> comments</p>  |  |  |

Review Form 1.7

PART 2:

|  |  |  |
|--|--|--|
|  | Reviewer’s comment   | Author’s comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i> |
| Are there ethical issues in this manuscript? | <i>(If yes, Kindly please write down the ethical issues here in details)</i> |  |

Reviewer Details:

|                                  |                          |
|----------------------------------|--------------------------|
| Name:                            | Aayush Gupta             |
| Department, University & Country | United States of America |