Dear editor-in-chief and peer reviewers,

I like to thank the reviewers for their valuable comments towards improving the quality and readability of our manuscript. I have responded to all comments, point-to-point, and revised the text. All changes made in the revised manuscript are highlighted in RED and uploaded along with the figures file.

Reviewer #1:

**Scientific Quality:** Grade B (Very good)

**Language Quality:** Grade A (Priority publishing)

**Conclusion:** Accept (General priority)

**Specific Comments to Authors:** In this manuscript the authors describe the structure of virions, which is an important characteristic for understanding the mechanisms of capsid assembly, disassembly, antigenicity, cell-receptor interaction, and for the development of drugs and vaccines against viruses. The manuscript is well written and informative, therefore, it is acceptable for publication.

Response: Thank you very much for your appreciation and positive comments.

Reviewer #2:

**Scientific Quality:** Grade B (Very good)

**Language Quality:** Grade B (Minor language polishing)

**Conclusion:** Accept (General priority)

**Specific Comments to Authors:** The manuscript "The geometric architecture of Viruses" by Khalid Parvez is original and interesting, however, I think that for the sake of usefulness some examples, or even a tentative list of relations between viral architecture and either viral antigenicity, infectivity or pathogenicity could be added to the text. For instance, these correlations for SARS-COV-2 (P16, p2,L1-5). Also, the use of colloquial expressions look odd in scientific texts.(e.g. "have become... corner" on P2,p1,L1-2).

Response: Thank you very much for your appreciation. As suggested, information on the SARS-CoV-2 capsid architecture in relation to viral antigenicity or infectivity has been now incorporated in the abstract as well as text, including two references (no. 65 and 66). Also, the phrase 'have become...corner' is removed from the text.

- (1) Science Editor: 1 Scientific quality: The manuscript is a minireview of the geometric architecture of viruses. The topic is in the scope of WJV. (1) Classification: Grade B and B. (2) Summary of the peer-review report: The manuscript is well written and informative. However, for the sake of usefulness some examples, or even a tentative list of relations between viral architecture and either viral antigenicity, infectivity or pathogenicity could be added to the text. For instance, these correlations for SARS-COV-2 (P16, p2, L1-5). Also, the use of colloquial expressions look odd in scientific texts.(e.g. "have become... corner" on P2, p1, L1-2). (3) Format: 6 figures. 69 references were cited, including 7 references published in the last three years. No self-citation. 2 Language evaluation: Grade A and B. Language editing certificate by King Saud University Investigators English Language Review Service was provided.
- 3 Academic norms and rules: The conflict-of-interest disclosure form and Copyright License Agreement were provided. No academic misconduct was found in the Bing search and the similar index in the CrossCheck search is 37%, the repeated sentences should be rephrased.

Response: Some of the sentences are now rephrased.

- 4 Supplementary comments:
- (1) Unsolicited manuscript.

Response: Please note that while acknowledging my submitted review reports, the BPG editors always offered full waiver on my future publications, especially 'Review Articles'. The present review article was therefore submitted for publication with the clear understanding that I (a BPG editorial/review board member) do not have to pay any publication fee.

- (2) Without financial support.
- (3) Corresponding author has published 1 article in BPG.

Response: Please correct- I have published two articles in BPG; one review article in WJH and second, a research article in WJG. Both were published without any fee.

5 Issues raised: (1) The authors did not provide original pictures. Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor;

Response: As suggested, all figures are now submitted in PowerPoint.

- (2) PMID and DOI numbers are missing in the reference list. Please provide the PubMed numbers and DOI citation numbers to the reference list and list all authors of the references. Please revise throughout; Response: The references are now revised accordingly.
- (3) The "Author Contributions" section is missing. Please provide the author contributions. Response: "Author contribution" section is now included.

6 Re-Review: Not required.

I do hope that I have answered all questions satisfactorily, and look forward to hear your positive decision. Nonetheless, I would be happy to revise the manuscript again, if needed.

Sincerely, Mohammad K. Parvez