

Peer review report and answers

Reviewer#1:

Specific Comments to Authors: Mukherjee et al have reviewed two hot topics of regenerative medicine: stem cell-based therapies and artificial intelligence algorithms in stem cell-based therapies. The author analyzed in detail some important types of stem cells in clinical treatment, including embryonic stem cells, induced pluripotent stem cells (iPSCs), induced tissue specific stem cells (iTS), and adult stem cells (ASCs). And then, the author focused on the clinical treatment of MSCs and the application of artificial intelligence in iPSC, highlighting their limitations and future prospects. However, the manuscript required minor language and grammar corrections. I suggest, if possible, and where available, the following data: 1. For therapeutic use of stem cells in the second part of the review, is it possible to make a unified summary table which lists the discovery time and source, advantages and disadvantages, current clinical applications and prospects of the various types of stem cells?

Response: *The suggested Table 1 is added in the revised manuscript. (Changes: Page 11-15)*

2. Does AI only play a role in the cell culture stage of stem cell-based therapies? Are there any more available aspects of AI in stem cell-based therapies: such as evaluation of efficacy and disease prognosis?

Response: *The AI based disease prognosis and decision support aspect is now added in the revised manuscript. (Changes: Page no. 24, 25)*

3. A suggestion: “2.4 Fetal stem cells” of the review can be combined with “2.5 Adult stem cells (ASCs)” to avoid redundancy.

Response: *As suggested section 2.4 and 2.5 are combined in the revised manuscript. (Changes: Page 8, para 2)*

4. Having two figure 3.

Response: *Figure numbers are corrected in the revised manuscript. (Changes: Page no. 19)*

Science editor:

1 Scientific quality: The manuscript describes a review of the recent trends in stem cell-based therapies and applications of artificial intelligence in regenerative medicine. The topic is within the scope of the WJSC. (1) Classification: Grade B; (2) Summary of the Peer-Review Report: The author analyzed in detail some important types of stem cells in clinical treatment, including embryonic stem cells, induced pluripotent stem cells, induced tissue specific stem cells, and adult stem cells. The author focused on the clinical treatment of MSCs and the application of artificial intelligence in iPSC, highlighting their limitations and future prospects. The questions raised by the reviewers should be answered.

Response: *The queries/suggestions by the reviewers are now incorporated in the revised manuscript.*

(3) Format: There are 2 tables and 3 figures; (4) References: A total of 184 references are cited, including 44 references published in the last 3 years; (5) Self-cited references: There

are 11 self-cited references. The self-referencing rates should be less than 10%. Please keep the reasonable self-citations (i.e. those that are most closely related to the topic of the manuscript) and remove all other improper self-citations. If the authors fail to address the critical issue of self-citation, the editing process of this manuscript will be terminated.

Response: *We reduced the number of self-citations as suggested. Only those articles are cited which are extremely relevant to the current review (less than 4% of the total cited articles).*

(6) References recommendations: The authors have the right to refuse to cite improper references recommended by the peer reviewer(s), especially references published by the peer reviewer(s) him/herself (themselves). If the authors find the peer reviewer(s) request for the authors to cite improper references published by him/herself (themselves), please send the peer reviewer's ID number to editorialoffice@wjgnet.com. The Editorial Office will close and remove the peer reviewer from the F6Publishing system immediately. 2 Language evaluation: Classification: Grade B. No language editing certificate was provided. 3 Academic norms and rules: No academic misconduct was found in the Bing search. 4 Supplementary comments: This is an invited manuscript. No financial support was obtained for the study. The topic has not previously been published in the WJSC.

Response: *No references are suggested by peer reviewer(s).*

5 Issues raised: (1) The "Author Contributions" section is missing. Please provide the author contributions;

Response: *Author Contributions are now added in the revised manuscript. (Changes: Page 2)*

(2) 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: *Original pictures are now submitted in a single ppt.*

(3) 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: *References are corrected as per journal format. PubMed numbers and DOI citation numbers are now added to the reference list.*

(4) If an author of a submission is re-using a figure or figures published elsewhere, or that is copyrighted, the author must provide documentation that the previous publisher or copyright holder has given permission for the figure to be re-published; and correctly indicating the reference source and copyrights. For example, "Figure 1 Histopathological examination by hematoxylin-eosin staining (200 ×). A: Control group; B: Model group; C: Pioglitazone hydrochloride group; D: Chinese herbal medicine group. Citation: Yang JM, Sun Y, Wang M, Zhang XL, Zhang SJ, Gao YS, Chen L, Wu MY, Zhou L, Zhou YM, Wang Y, Zheng FJ, Li YH. Regulatory effect of a Chinese herbal medicine formula on non-alcoholic fatty liver disease. World J Gastroenterol 2019; 25(34): 5105-5119. Copyright ©The Author(s) 2019. Published by Baishideng Publishing Group Inc[6]". And please cite the reference source in the

references list. If the author fails to properly cite the published or copyrighted picture(s) or table(s) as described above, he/she will be subject to withdrawal of the article from BPG publications and may even be held liable. 6 Recommendation: Conditional acceptance.

Response: *All the figures are drawn by the authors of this manuscript. Therefore, no copyright permissions are required.*