Name of journal: *World Journal of Stem Cells*

Manuscript NO: 74798

Title: Bone marrow mesenchymal stem cell treatment improves post-stroke cerebral function recovery by regulating gut microbiota in rats

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer’s code: 05684808

Position: Peer Reviewer

Academic degree: MD

Professional title: Associate Chief Physician

Reviewer’s Country/Territory: China

Author’s Country/Territory: Iran

Manuscript submission date: 2022-01-06

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-01-06 19:41

Reviewer performed review: 2022-01-07 12:36

Review time: 16 Hours

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SPECIFIC COMMENTS TO AUTHORS

1. This letter would be good to improve the original manuscript.
Name of journal: World Journal of Stem Cells

Manuscript NO: 74798

Title: Bone marrow mesenchymal stem cell treatment improves post-stroke cerebral function recovery by regulating gut microbiota in rats

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer’s code: 03913828

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer’s Country/Territory: China

Author’s Country/Territory: Iran

Manuscript submission date: 2022-01-06

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-01-09 12:21

Reviewer performed review: 2022-01-13 14:47

Review time: 4 Days and 2 Hours

Scientific quality

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SPECIFIC COMMENTS TO AUTHORS

• The manuscript has reviewed Zhao L-N et al.'s paper and proposed amendments for improving. The suggestions made sense for the improvement. However, there were some problems in this manuscript. 1). The title was ambiguous and could not reflect the main subject of the manuscript. Also, the abstract did not reflect the core meaning described in the manuscript. 2). The manuscript did not describe the paper it commented adequately. Zhao L-N et al.'s research should be explained more detailedy. So that the readers can get a clear picture of the background. 3). The author recommended that more methods should be used to assessed the volume of infarction. In addition to MRI, ELISA assessment and some other behavioral function tests were mentioned. However, the assessment were not all used for the evaluation of volume. The author should clarified the specific purpose of each assessment. 4) The manuscript has grammatical and spelling mistakes. The language needs polishing.
**Name of journal:** World Journal of Stem Cells  

**Manuscript NO:** 74798  

**Title:** Bone marrow mesenchymal stem cell treatment improves post-stroke cerebral function recovery by regulating gut microbiota in rats  

**Provenance and peer review:** Invited Manuscript; Externally peer reviewed  

**Peer-review model:** Single blind  

**Reviewer’s code:** 03812467  

**Position:** Peer Reviewer  

**Academic degree:** PhD  

**Professional title:** Research Fellow  

**Reviewer’s Country/Territory:** China  

**Author’s Country/Territory:** Iran  

**Manuscript submission date:** 2022-01-06  

**Reviewer chosen by:** AI Technique  

**Reviewer accepted review:** 2022-01-07 01:50  

**Reviewer performed review:** 2022-01-15 12:43  

**Review time:** 8 Days and 10 Hours  

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SPECIFIC COMMENTS TO AUTHORS
The authors analyzed the interactions among gut microbiota and BMSCs based on the recent article by Zhao et al in World Journal of Stem Cells on Bone marrow mesenchymal stem cell therapy regulates gut microbiota to improve post-stroke neurological function recovery in rats. The article proposes the need to examine possible changes in volume of infarction and other behavioral function test after BMSC treatment. The logic is relatively clear, but only further supplementary suggestions are made on the basis of the previous literature, and there is no particularly innovative content and significance.
Name of journal: World Journal of Stem Cells

Manuscript NO: 74798

Title: Bone marrow mesenchymal stem cell treatment improves post-stroke cerebral function recovery by regulating gut microbiota in rats

Provenance and peer review: Invited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer’s code: 06240191

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer’s Country/Territory: India

Author’s Country/Territory: Iran

Manuscript submission date: 2022-01-06

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-01-07 05:35

Reviewer performed review: 2022-01-15 12:45

Review time: 8 Days and 7 Hours

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| Conclusion                               | Accept (High priority) | Accept (General priority) |
|                                          | [ ]                   | [ Y]                     |
|                                          | Minor revision        | Major revision           |

| Re-review                               | [ Y] Yes               | [ ] No                   |


Overview: In the present study, Sheykhhasan M aimed to review the study done by Zhao et al. “Bone marrow mesenchymal stem cell therapy regulates gut microbiota to improve post-stroke neurological function recovery in rats”. The author have highlighted the major points claimed by the authors of the original study. Sheykhhasan M have suggested relatable parameters that could support the authors claim. In conclusion, Sheykhhasan M stated that additional evaluations used in previous studies could help in providing substantial evidence for this study and find a possible association between stroke recovery and gut microbiota regulation after BMSC treatment. Comments to the authors 1. Author need to check spellings and English throughout the manuscript. 2. Author have discussed about all the parameters done in the original work, it would be better that author should also discuss about the “Microbiome 16S rDNA sequencing and analysis”. 3. It is suggested to include only the latest references in the manuscript.
**RE-REVIEW REPORT OF REVISED MANUSCRIPT**

**Name of journal:** World Journal of Stem Cells  
**Manuscript NO:** 74798  
**Title:** Bone marrow mesenchymal stem cell treatment improves post-stroke cerebral function recovery by regulating gut microbiota in rats  
**Provenance and peer review:** Invited Manuscript; Externally peer reviewed  
**Peer-review model:** Single blind  
**Reviewer’s code:** 06240191  
**Position:** Peer Reviewer  
**Academic degree:** MD  
**Professional title:** Doctor  
**Reviewer’s Country/Territory:** India  
**Author’s Country/Territory:** Iran  
**Manuscript submission date:** 2022-01-06  
**Reviewer chosen by:** Han Zhang  
**Reviewer accepted review:** 2022-07-04 17:10  
**Reviewer performed review:** 2022-07-04 17:48  
**Review time:** 1 Hour

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**Conclusion**  
- [ ] Accept (High priority)  
- [ ] Accept (General priority)  
- [Y] Minor revision  
- [ ] Major revision  
- [ ] Rejection

**Peer-reviewer**  
Peer-Review: [Y] Anonymous  
[ ] Onymous
SPECIFIC COMMENTS TO AUTHORS
Out of three comments, authors successfully incorporated the two comments (i.e. 1 and 3), however, second comment i.e. "2. Authors have discussed about all the parameters done in the original work, it would be better that authors should also discuss about the “Microbiome 16S rDNA sequencing and analysis” still needs elaboration. In the revised manuscript, authors have mentioned, "Microbiome 16S rDNA sequencing and analysis" should be included in the author's discussion." without discussing the results obtained in the original work.