Dear Editor,

Thank you very much for considering our LETTER TO THE EDITOR manuscript entitled "Bone marrow mesenchymal stem cell therapy regulates gut microbiota to improve post-stroke neurological function recovery in rats", which we submitted to World Journal of Stem Cells. We have taken your advice into consideration, as well as the comments of the reviewers, in preparing a revised version. The responses to the editorial and reviewers' comments are addressed in a point-by-point style in the attached pages in which our comments and responses are inserted in blue text into the context of the reviews.

In summary, we have addressed each of the points raised by the reviewers and you in the revised manuscript, and the responses are further elaborated upon below in the specific comments to the reviewers and editor. We hope that these revisions have addressed all the comments, and that the revised manuscript will now be acceptable for publication in Current Drug Targets.

If there still any questions, please do not hesitate to contact us.

Best wishes,

Mohsen Sheykhhasan

Research Center for Molecular Medicine, Hamadan University of Medical Sciences, Hamadan, Iran; Department of Mesenchymal Stem Cell, the Academic Center for Education, Culture and Research, Qom.

Responses to reviewer's comments

Dear Reviewer, 1

- **1. Reviewer comment 1:** 1. Author need to check spellings and English throughout the manuscript. Spelling and English has been throughout checked.
- 2. Microbiome 16S rDNA sequencing and analysis
- 3. latest references in the manuscript Latest reference has been included in the draft

Reviewer 2:

1. Innovative content and significance – revised the manuscript and added innovative content and significance.

Reviewer 3:

- 1. Title reflect the main subject of the manuscript Title has been rewritten to reflect the main subject of the manuscript
- 2. Thank you for your suggestions.
- 3. We like to thanks the review highlighting the problem with some part of the letter. This has been included in the manuscript as requested by reviewer.
- 4. Thank you for your suggestions, we have made revisions according to your valuable comment.

Reviewer 4: Thank you for your valuable comment.

In light of above news, we added 7 references to paper text.

Answering reviewers for re-review

Responses to reviewer's comments:

Dear science editor science editor comment: 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. -Thank you for your suggestions, we have made revisions according to your valuable comment (discuss about the "Microbiome 16S rDNA sequencing and analysis"). A Non-Native Speakers of English Editing Certificate from an editing company is required. Please be sure to have an editing company edit the manuscript for grammar, sentence structure, word usage, spelling, capitalization, punctuation, format, and general readability, so that the manuscript's language will meet our direct publishing needs. - Due to the unprecedented and dramatic increase in the value of the dollar in Iran (the value of each U.S. dollar climbed to 430000 Iranian rials), as well as the increase in other costs and 2019-nCoV outbreak and lack of funds, we and our institute are not able to pay the editing company Charges. Grammar, sentence structure, word usage, spelling, capitalization, punctuation, format, and general readability has been throughout checked by a native Speakers of English. In light of above news, we added 3 reference to paper text.