

December, 2023

Name of journal: World Journal of Transplantation (WJT)

Manuscript ID: 89674

Title: Current status and future perspectives on stem cell transplantation for spinal cord injury

Dear Editor-in-Chief of the World Journal of Transplantation (WJT),

On behalf of the other authors and myself, I would like to extend my gratitude for the efforts and time spent reviewing our submission. The Reviewers make excellent points and offer valuable suggestions to improve the manuscript. **Please find the point-by-point responses in bold font under each of the comments made by the reviewer below, which can also be found with yellow color in the revised manuscript with track changes:**

Science Editor and Company Editor-in-Chief:

The manuscript has been peer-reviewed, and it is ready for the first decision.

Company editor-in-chief: I have reviewed the Peer-Review Report, full text of the manuscript, and the relevant ethics documents, all of which have met the basic publishing requirements of the World Journal of Transplantation, and the manuscript is conditionally accepted. I have sent the manuscript to the author(s) for its revision according to the Peer-Review Report, Editorial Office's comments and the Criteria for Manuscript Revision by Authors. Before its final acceptance, please provide and upload the following important documents: Biostatistics Review Certificate, a statement affirming that the statistical review of the study was performed by a biomedical statistician. 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. In order to respect and protect the author's intellectual property rights and prevent others from misappropriating figures without the author's authorization or abusing figures without indicating the source, we will indicate the author's copyright for figures originally generated by the author, and if the author has used a figure published elsewhere or that is copyrighted, the author needs to be authorized by the previous publisher or the copyright holder and/or indicate the reference source and copyrights. Please check and confirm whether the figures are original (i.e. generated de novo by the author(s) for this paper). If the picture is 'original', the author needs to add the following copyright information to the bottom right-hand side of the picture in PowerPoint (PPT): Copyright ©The Author(s) 2023. Authors are required to provide standard three-line tables, that is, only the top line, bottom line, and column line are displayed, while other table lines are hidden. The contents of each cell in the table should conform to the editing specifications, and the lines of each row or column of the table should be aligned. Do not use carriage returns or spaces to replace lines or vertical lines and do not segment cell content. When revising the manuscript, it is recommended that the author supplement and improve the highlights of the latest cutting-edge research results, thereby further improving the content of the manuscript.

As requested by the Editor, the Biostatistics Review Certificate has been uploaded. The Figures are all original. As requested, we have provided the images in PPT with the copyright information requested. The tables have been formatted as requested.

To this end, authors are advised to apply PubMed, or a new tool, the RCA, of which data source is PubMed. RCA is a unique artificial intelligence system for citation index evaluation of medical science and life science literature. In it, upon obtaining search results from the keywords entered by the author, "Impact Index Per Article" under "Ranked by" should be selected to find the latest highlight articles, which can then be used to further improve an article under preparation/peer-review/revision. Please visit our RCA database for more information at: <https://www.referencecitationanalysis.com/>, or visit PubMed at: <https://pubmed.ncbi.nlm.nih.gov/>.

We have found the RCA tool to be quite useful in preparing the modified manuscript. The following has been added:

"The systematic review was performed ... and Reference Citation Analysis (RCA) (<https://www.referencecitationanalysis.com/>)."

Reviewer 1 (number ID: 05247020)

This manuscript is a systematic review of clinical trials on stem cell therapy for spinal cord injury (SCI). The review highlights the potential benefits and limitations of stem cell therapy in improving neurological function in SCI patients. It discusses the challenges and uncertainties associated with the translation of stem cell therapy from animal studies to clinical

practice. The review emphasizes the need for well-designed clinical trials with larger sample sizes, control groups, and long-term follow-up to establish the safety and efficacy of stem cell therapy for SCI. The article also mentions the potential adverse events associated with stem cell transplantation. SCI constitutes an inestimable public health issue. The injured spinal cord is difficult to repair and regenerate. The most crucial phase in the pathophysiological process of SCI concerns the well-known secondary injury, which is the uncontrolled and destructive cascade occurring later with aberrant molecular signaling, inflammation, vascular changes, and secondary cellular dysfunctions. Because of their neuroregenerative and neuroprotective properties, stem cells are a promising tool for the treatment of SCI. Many types of stem cells have been used for transplantation, and each has its own advantages and disadvantages. Overall, the manuscript is more comprehensively summarized, but the authors could have done a better job of categorizing and summarizing the clinical transplantation of different stem cells rather than listing all of them in one table. Some English errors in format and grammar need to be corrected.

Many thanks for the thorough review of our paper. In accordance with the suggestion made by the Reviewer, the table has been divided in several different tables based on category. Additional information has been added. The English errors have been checked and corrected by a native English doctor.

The valuable comments and assistance with our paper are greatly appreciated. We look forward to your final decision regarding our modifications, with the hopes that all concerns have been addressed appropriately.

Kind regards,

Marco Zeppieri *(on behalf of the other authors)*