

PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 52207

Title: C-C chemokine receptor type 2-overexpressing exosomes alleviated experimental post-stroke cognitive impairment by enhancing microglia/macrophage M2 polarization

Reviewer's code: 03197771

Position: Editorial Board

Academic degree: PhD

Professional title: Full Professor

Reviewer's country: Spain

Author's country: China

Reviewer chosen by: Ying Dou

Reviewer accepted review: 2019-11-03 23:52

Reviewer performed review: 2019-11-05 14:06

Review time: 1 Day and 14 Hours

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input checked="" type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input checked="" type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input checked="" type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

The manuscript entitled : “Exosomes Secreted from CCR2-Overexpressing Mesenchymal Stem Cells Promote Cognitive Function by Enhancing Microglia/Macrophage M2 Polarization and Remyelination via the Suppression of Macrophage Infiltration Following Transient Middle Cerebral Artery Occlusion”, presents evidence supporting therapeutic effects of exosomes from HUC-MSCs to treat PSCI after stroke, in a rat model (tMCAO), with improved results if exosomes were obtained from CCR2 overexpressing cells. The article seems well structured and the data appears concordant with authors’ claims in general. However, it is considered that the following minor issues need to be addressed:

- Figure 2A is mentioned in first place in the document. Please fix so that Figures appear ordered from the beginning of the document.
- The methods section “Transfection of HUC-MSCs...” needs to be improved. Authors refer cells “infected” “transfection” transfected” The protocol described is not clear in its current form, neither the osteogenesis and lipogenesis inductions referred at the end of the section.
- Please review text in sections of methods “Exosome...” and “Western blotting” The connector “First” is used in both parts without being followed by “Secondly or other. Please review grammar in this sense.
- Readers would appreciate a short explanation to justify marker selection in some parts, i.e CD13, CD29...NG2+ cells, iba-1; CD68 etc (some arguments provided in the discussion section for iba-1 could be replaced in the text to help readers understand the selection of markers in the results section).
- Catalogue numbers in addition to providers for all materials are needed. The authors miss to provide these details for several important components such as the antibodies used, cell line RAW 264.7. Please review all materials in this sense. The concentration or dilutions of antibodies used should also be indicated in each case.
- Journal name for reference 17 is missing
- Replace the term “thrice” for: three times.
- On page 6 Morris appears in lower case letters (morris).
- On page 8, mNSS appears once with the “m” in capital letters (MNSS), which is confusing.
- “et al” should appear with a final dot and in italics “et al.”



**Baishideng
Publishing
Group**

7041 Koll Center Parkway, Suite
160, Pleasanton, CA 94566, USA
Telephone: +1-925-223-8242
E-mail: bpgoffice@wjgnet.com
https://www.wjgnet.com

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ No

BPG Search:

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ No

PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 52207

Title: C-C chemokine receptor type 2-overexpressing exosomes alleviated experimental post-stroke cognitive impairment by enhancing microglia/macrophage M2 polarization

Reviewer's code: 03671529

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Assistant Professor, Senior Lecturer

Reviewer's country: Russia

Author's country: China

Reviewer chosen by: Ying Dou

Reviewer accepted review: 2019-11-06 18:17

Reviewer performed review: 2019-11-08 14:19

Review time: 1 Day and 20 Hours

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	<input type="checkbox"/> Accept	Peer-Review:
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language	(High priority)	<input type="checkbox"/> Anonymous
<input type="checkbox"/> Grade C: Good	polishing	<input type="checkbox"/> Accept	<input type="checkbox"/> Onymous
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of	(General priority)	Peer-reviewer's expertise on the
<input type="checkbox"/> Grade E: Do not	language polishing	<input type="checkbox"/> Minor revision	topic of the manuscript:
publish	<input type="checkbox"/> Grade D: Rejection	<input type="checkbox"/> Major revision	<input type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input type="checkbox"/> General
			<input type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

The presented work was performed at a high methodological level. In the course of the study, the authors obtained new data on the mechanisms of the therapeutic activity of MSCs and their effect on a specific population of central nervous system macrophages - microglia. To study the mechanisms of therapeutic activity of MSCs, a model of cerebral ischemia was used. The authors used Cd206 as a marker of M2 macrophages, which corresponds to the classical concept of the M1 / M2 paradigm. Currently, the markers of the corresponding phenotypes are Arg1, iNOs, transcription factors STAT1, STAT3, STAT6. Murray P.J., Allen J.E., Biswas S.K., Fisher E.A., Gilroy D.W., Goerdts S., Gordon S., Hamilton J.A., Ivashkiv L.B., Lawrence T., et al. Macrophage Activation and Polarization: Nomenclature and Experimental Guidelines. *Immunity*. 2014;41:14–20. doi: 10.1016/j.immuni.2014.06.008.

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ No

BPG Search:

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ No