

PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 46865

Title: Enhanced hepatic differentiation in the subpopulation of human amniotic stem cells under 3D multicellular microenvironment

Reviewer's code: 02549888

Reviewer's country: India

Science editor: Ying Dou

Reviewer accepted review: 2019-02-27 13:18

Reviewer performed review: 2019-02-27 13:32

Review time: 1 Hour

SCIENTIFIC QUALITY	LANGUAGE QUALITY	CONCLUSION	PEER-REVIEWER STATEMENTS
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	<input checked="" type="checkbox"/> Accept	Peer-Review:
<input checked="" type="checkbox"/> Grade B: Very good	<input 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 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

Title: Apt. Abstract: Gives a good preview of the intended study model. Introduction: Gives a satisfactory idea of the topic. Basic concepts are well explained. Materials and methods: Elaborate description of the cell types and tests to evaluate. Very good



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description of the methodology. Results are well described, Discussion: Very good.
Conclusion is satisfactory . Futuristic strategies well documented.

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: 46865

Title: Enhanced hepatic differentiation in the subpopulation of human amniotic stem cells under 3D multicellular microenvironment

Reviewer's code: 02595776

Reviewer's country: South Korea

Science editor: Ying Dou

Reviewer accepted review: 2019-04-26 11:38

Reviewer performed review: 2019-05-01 23:48

Review time: 5 Days and 12 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 checked="" type="checkbox"/> Advanced
		<input type="checkbox"/> Rejection	<input 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 authors raised questions of possibility using amniotic epithelial cells (AECs) as a cell source for regenerative medicine. This manuscript well-described the characteristics of AECs. Some correction may enhance the novelty of this manuscript. 1. The term



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‘organoid’ should be replaced as “spheroid”. As a perspective of my knowledge, organoid means the small organ-like structure that mimics the physiology of specific organ and derived from a pluripotent stem cell. Although AECs considered as a kind of multipotent stem cells, not as a pluripotent stem cell. Therefore, the spheroid more suitable term for use. 2. In Figure 2, providing of larger magnification picture of A, B, C, D, E surely enhanced the understanding of readers. 3. In Figure 4 legend, the authors missed the explanation of D. It should be provided.

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: 46865

Title: Enhanced hepatic differentiation in the subpopulation of human amniotic stem cells under 3D multicellular microenvironment

Reviewer's code: 02445571

Reviewer's country: China

Science editor: Ying Dou

Reviewer accepted review: 2019-04-25 03:33

Reviewer performed review: 2019-05-08 06:48

Review time: 13 Days and 3 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 checked="" 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 checked="" type="checkbox"/> No expertise
			Conflicts-of-Interest:
			<input type="checkbox"/> Yes
			<input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

In this paper, the authors investigated the role of amniotic stem cells in the regeneration of hepatic cells. They used 3D co-culture and a combination of supportive somatic stem cells to simulate an in vivo microenvironment. The selected subpopulation of adherent



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amniotic stem cells self-organized ex vivo and generated functional organoids. In general, this study is interesting and helpful to better understand the effects of amniotic stem cells on liver regeneration. The results from this study may provide the guide for stem cell therapy. The manuscript was well designed and the results were presented correctly. Some minor grammatically issues need to be corrected or use standard words, such as 1 d, two-step, multiple-step.....

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

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BPG Search:

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- ☐ Plagiarism
- ☒ No