

PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 47706

Title: Enhancing osteogenic potential of mesenchymal stem cells. The holy grail of bone tissue regeneration?

Reviewer's code: 02446101

Reviewer's country: China

Science editor: Jin-Lei Wang

Reviewer accepted review: 2019-05-17 06:22

Reviewer performed review: 2019-05-17 08:12

Review time: 1 Hour

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 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

This review summarizes several of the most recent approaches, providing an up to date view of the main developments in MSC-based regenerative techniques. This review can reflect the main research progress of this research direction and has reference value for



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the readers. The writing is fluent, logical and readable. In conclusion, acceptance should be recommended for the manuscript.

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: 47706

Title: Enhancing osteogenic potential of mesenchymal stem cells. The holy grail of bone tissue regeneration?

Reviewer's code: 02566952

Reviewer's country: Romania

Science editor: Jin-Lei Wang

Reviewer accepted review: 2019-05-22 07:02

Reviewer performed review: 2019-05-22 07:30

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 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 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

A well organized , interesting work focusing on the direct contribution of mesenchymal stem cells in regenerating bone tissue. A large part of the manuscript is dedicated to describing general methods of improving culture condition and/or delivery and only a



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relatively small part presents about proposed methods of enhancing osteogenesis. Maybe the title/abstract/core tip of the manuscript should reflect this situation accordingly or readjust the importance and length of respective chapters if the title needs to be maintained. An important question regarding osteogenic potential of MSCs is their intended use. Constructing bone grafts in vitro for transplanting them into bone defects is one challenge that needs to address specific requirements (such as interfaces problems, graft vascularization among many) while treating delayed fracture consolidation or non union is another problem. To add to this already distinct matters, groups are trying to treat systemic bone loss (osteoporosis). It is important to acknowledge that for each and every specific application one or another of the contribution of MSCs is preferred (engraftment and motility is crucial for example for treating osteoporosis but has no relevance whatsoever when one tries to build bone grafts in vitro)

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

- ☐ The same title
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- ☐ Plagiarism
- ☐ [Y] No

BPG Search:

- ☐ The same title
- ☐ Duplicate publication
- ☐ Plagiarism
- ☐ [Y] No