

PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 53950

Title: Current and future uses of skeletal stem cells for bone regeneration

Reviewer's code: 00505593

Position: Peer Reviewer

Academic degree: PhD

Professional title: Adjunct Professor

Reviewer's Country/Territory: United States

Author's Country/Territory: China

Manuscript submission date: 2020-01-01

Reviewer chosen by: AI Technique

Reviewer accepted review: 2020-01-04 19:38

Reviewer performed review: 2020-01-04 19:41

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 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



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E-mail: bpgoffice@wjgnet.com
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Great review. Please add the reference number at the end of each sentence so the reader can search for the article if interested

INITIAL REVIEW OF THE MANUSCRIPT

Google Search:

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

BPG Search:

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PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 53950

Title: Current and future uses of skeletal stem cells for bone regeneration

Reviewer's code: 03471268

Position: Editorial Board

Academic degree: PhD

Professional title: Associate Professor

Reviewer's Country/Territory: Japan

Author's Country/Territory: China

Manuscript submission date: 2020-01-01

Reviewer chosen by: Le Zhang

Reviewer accepted review: 2020-02-15 06:42

Reviewer performed review: 2020-02-17 06:18

Review time: 1 Day and 23 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 checked="" type="checkbox"/> Grade B: Minor language	(High priority)	<input checked="" type="checkbox"/> Anonymous
<input checked="" 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 checked="" 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

This review has summarized several stem cells which may have the ability for regeneration of the skeletal system ,and highlighted SSCs , MSCs and Circulating progenitor cells. In introduction, it introduced the physiological properties of bone and indicated the character of stem cells in bone repair process. It illustrated the different differentiation capacity of different stem cells include totipotent, pluripotent, multipotent and unipotent. In body part of the passage, it depicted several cells which are contribute to bone regeneration, such as OCR stem cells, pre-BCSP and BCSP, PTHrP-positive chondrocytes, PCs, BMSCs, BMMSCs, ADSCs, EPCs. Their functions were generally divided into two part ,secretion of nutritional or immunomodulatory factors and direct effect on the formation of the bone callus ,although there are no clear line of demarcation among those cells. In Circulating progenitor cells part, page9 line 30, "hematopoietic cells do not contribute to osteogenesis in fracture healing or heterotopic ossification" seems too absolute in expression, it had said in introduction that "hematopoietic stem cells (HSCs)[17], which are the source for all kinds of blood cells, and bone marrow mesenchymal stem cells (BMMSCs), also known as the bone marrow stromal cells (BMSCs)[18]" ,it may have indirect contribution to fracture healing or heterotopic ossification. In page10 line 16, "circulating osteogenic connective tissue progenitors (GFP+ cells) "have been confirmed "contribute to osteogenic differentiation in the early stage of fracture healing",but it have not indicated whether these progenitors are some or several progenitors mentioned above. In conclusion part, it has depicted some prospect of clinical application.BMMSCs and ADSCs are easily access for regenerative medicine, SSCs and/or BMMSCs have positive differential and therapeutic potentials. Some single plural form of words should be careful ,like the page1 line3 and line4 "tissue" should be "tissues". It is a good writing but relatively simple and discussed not so deeply. For a publishable manuscript, it is suggested to add the more information on such as the limitation and/or disadvantage.



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