

PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 42870

Title: Applications of Stem Cells and Bioprinting for Potential Treatment of Diabetes

Reviewer's code: 03478635

Reviewer's country: Japan

Science editor: Jin-Lei Wang

Date sent for review: 2018-10-19

Date reviewed: 2018-10-22

Review time: 2 Days

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

This is an important review article describing the bioprinting technique of cell-based therapies. MSCs used for clinical trials in diabetes mellitus type 1 in Table 1 may be specified whether it was human MSCs or not. The three bioprinting methods which are ink jet bioprinting, extrusion bioprinting and laser assisted bioprinting in Figure 2 may



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be labeled and explained briefly in the figure lended.

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: 42870

Title: Applications of Stem Cells and Bioprinting for Potential Treatment of Diabetes

Reviewer's code: 03370303

Reviewer's country: Japan

Science editor: Jin-Lei Wang

Date sent for review: 2018-10-19

Date reviewed: 2018-10-22

Review time: 2 Days

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 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 is interesting, showing us the present state and the future possibility of the bioprinting technique in the application to regenerative medicine for the treatment of diabetes. Since I am not a specialist of the bio-printing technique, I cannot give specific comments from that standpoint. The only concern I have is about Figure 1, which is



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rather misleading from the following two points. First, insulin does not bind to glucose but binds to its receptor on the target cells to augment their glucose uptake. Secondly, the pathophysiology of T2DM starts with insulin resistance, which promotes beta cell hyperplasia and upregulates insulin secretion to compensate high blood glucose levels. After sustained insulin resistance for years, pancreatic beta cells begin to exhaust, and insulin secretion becomes deficient. To avoid the misunderstanding of the readers who do not specialize in diabetes, Figure 1 should be modified. Below is an example. I am happy if it is of use to authors to up-grade Figure 1.

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PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 42870

Title: Applications of Stem Cells and Bioprinting for Potential Treatment of Diabetes

Reviewer's code: 02446215

Reviewer's country: Italy

Science editor: Jin-Lei Wang

Date sent for review: 2018-10-19

Date reviewed: 2018-10-24

Review time: 4 Days

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
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		<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 minireview is focused on the application of stem cells and bioprinting for the treatment of degenerative diseases and, in particular, of diabetes. the paper is well written and of interest.



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