

ESPS PEER REVIEW REPORT

Name of journal: World Journal of Stem Cells

ESPS manuscript NO: 12790

Title: ADVANCES IN CELLULAR TECHNOLOGY IN THE HEMATOLOGY FIELD: WHAT HAVE WE LEARNED SO FAR?

Reviewer code: 00646241

Science editor: Xiu-Xia Song

Date sent for review: 2014-07-26 23:09

Date reviewed: 2014-07-27 23:25

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> Existing	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	BPG Search:	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input type="checkbox"/> Existing	<input type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

COMMENTS TO AUTHORS

In their paper, "ADVANCES IN CELLULAR TECHNOLOGY IN THE HEMATOLOGY FIELD: WHAT HAVE WE LEARNED SO FAR?", the authors present an overview of in vitro techniques to cultivate or manipulate hematological progenitor cells or embryonal stem cells in order to achieve differentiated cells that might be of clinical (erythrocytes, granulocytes, and others) or probably rather theoretical use (mast cells). They collected a number of protocols and descriptions on the in vitro differentiation of such cells, both from murine or human sources. In the introduction, a number of problems related to the present use of blood products - immune reactions, infections, shortage of blood products - are mentioned. Possible dangers of cells processed in-vitro - e.g. malignant transformation or again induction of immune reactions - are not considered. Production or processing of effector cells from monocytes or lymphocytes - clinically relevant for example the ex-vivo generation of dendritic cells or lymphokine activated killer cells - is not mentioned. Otherwise the work may represent a useful collection of protocols that may, after substantial corrections, be published. The language of the work is not quite perfect and might in general profit from corrections by a native speaker. In many parts it is difficult to read. The spelling is in part American (hematology) and in part British (haematology), this should be clarified. Some sentences that must be corrected are (only some examples out of a much larger number): p. 2 instead of the determining the haematological and immune status better write determination of the



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haematological and immune status p.2 instead of epitopes enzymatic digestion better write epitopes by enzymatic digestion p. 7 instead of Megakaryocytes are polyploidy cells, which underwent successive DNA replications without suffering mitosis. better write Megakaryocytes are polyploid cells that underwent successive DNA replications without mitosis. p.7 instead of requirements for direct differentiating ESC to megakaryocytes better write requirements for direct differentiation of ESC to megakaryocytes. p.11 instead of could successfully differentiated into cells write could successfully be differentiated into cells

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Name of journal: World Journal of Stem Cells

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Title: ADVANCES IN CELLULAR TECHNOLOGY IN THE HEMATOLOGY FIELD: WHAT HAVE WE LEARNED SO FAR?

Reviewer code: 00630200

Science editor: Xiu-Xia Song

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Date reviewed: 2014-08-15 05:16

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> Existing	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good	<input checked="" type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input checked="" type="checkbox"/> Grade D: Fair		BPG Search:	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Existing	<input checked="" type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

COMMENTS TO AUTHORS

The review prepared by de Souza et al. focuses on the utility of using pluripotent stem cells for the production of cellular transfusion products. They discuss the production of various hematopoietic cell types with a greater focus on the generation of erythrocytes and platelets. The topics discussed are appropriate and of likely interest for readers of the World Journal of Stem Cells. The manuscript would be significantly improved with attention to the following points: 1) The manuscript requires significant editing by a native speaker of English. Although most parts of the manuscript are understandable, the number of grammatical errors is too great for me to list. 2) The manuscript also needs to be edited for style and general focus. For instance, single sentence paragraphs, which could well be added to the preceding or following paragraph, should be avoided. The introduction focuses the paper on transfusion, but then many cell types are discussed that have very little clinical utility. The Introduction and scope of the manuscript should be re-written to match the contents. 3) I count 15 authors, which is a lot for a review paper. Have they all really made a significant contribution? 4) The manuscript does a good job at stating protocols that have been shown to be effective in generating the various cell types, but the difficult and negative aspects of using stem cells are not much discussed. A balanced review should also present aspects of what is not known and point to what the authors think are the next steps in the field.

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Title: ADVANCES IN CELLULAR TECHNOLOGY IN THE HEMATOLOGY FIELD: WHAT HAVE WE LEARNED SO FAR?

Reviewer code: 01021289

Science editor: Xiu-Xia Song

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CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> Existing	<input checked="" type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> No records	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	BPG Search:	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input type="checkbox"/> Existing	<input type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

COMMENTS TO AUTHORS

This review summarizes the update of the production of various blood cells using the embryonic stem cells and iPS. Minor comments 1. On page 4, line 8 from the bottom, the production is redundant. Please fix. 2. On page 11, line 11 from the top, please put the appropriate space in between "reprogramming" and readily. The same for "encouraged" and "considerable".