

ESPS PEER REVIEW REPORT

Name of journal: World Journal of Stem Cells

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Title: Alternative splicing: An important mechanism in stem cell biology

Reviewer code: 00292735

Science editor: Xiu-Xia Song

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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 checked="" 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 type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Existing	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input type="checkbox"/> No records	<input checked="" type="checkbox"/> Major revision

COMMENTS TO AUTHORS

This is a nice and timely review about the role of alternative splicing in pluripotency maintenance and stem cell reprogramming. The text is concise and provides useful information about recent developments for an audience familiar with stem cell biology. However, the text does not provide any details of the methods to actually study alternative splicing data. The text is also very brief about how alternative splicing is regulated, so some of the results described might not be evident. Since the review has more to do with biological mechanisms than with methodologies, perhaps the review would benefit from having more information about how alternative splicing is regulated and not so much about the technology used. In any case, the text needs extensive work. Some sentences seem disconnected or incomplete, and the text does not read well in some parts. I have suggested some corrections (too many to enumerate here), which I have uploaded as a scanned copy. Apologies in advance if some of the corrections are out of place. Besides this, there are some other things that the authors may consider: Gene name convention is not clear sometimes. In some cases it is explicitly said whether the system is human (capitals) or mouse (lower case), but sometimes it is not clear by the context. The formula in figure 2B is incorrect. The factor 2 only multiplies the skipping reads (#E1E2). The review will benefit a lot if a new figure (fig. 3) could be added with an illustration of some of the mechanisms described in the text. Since the review focuses more on the biological aspect rather than the methodological aspect, these illustrative graphics will be of great value. The authors use old references for some of the topics, but there are newer ones with more up-to-date data.



BAISHIDENG PUBLISHING GROUP INC

8226 Regency Drive, Pleasanton, CA 94588, USA

Telephone: +1-925-223-8242

Fax: +1-925-223-8243

E-mail: bpgoffice@wjgnet.com

<http://www.wjgnet.com>

Also, the authors should indicate some references for some of the concepts mentioned. Some are suggested in the scanned copy. The section about the similarity of iPSC reprogramming and ESCs is centered on Ohta et al. 2013, but should be more balanced with the data presented in Han et al. 2013 and Venables et al. 2013, which appeared around the same time, if not earlier, and provide complementary information.