

ESPS Peer-review Report

Name of Journal: World Journal of Diabetes

ESPS Manuscript NO: 5539

Title: Identification and differentiation of PDX1 β -cell progenitors within the human pancreatic epithelium

Reviewer code: 02148395

Science editor: Song, Xiu-Xia

Date sent for review: 2013-09-13 15:02

Date reviewed: 2013-09-16 20:09

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"/> Existed	<input 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)		BPG Search:	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

COMMENTS TO AUTHORS

The manuscript "Identification and differentiation of PDX1 β -cell progenitors within the human pancreatic epithelium" by K.L. Seeberger et al. describes a new culture system that promotes pancreatic epithelial cell survival and minimizes MSC overgrowth. The authors propose that β -cell progenitors could reside within the human pancreatic epithelium. This is a descriptive manuscript. Yet the methods are well described and the results are convincingly demonstrated. I have only one concern. The authors describe in the introduction and the discussion their previous findings as well as opposing or fitting findings by other groups. This reads tiring and the description should not be repeated in the Discussion, where only the results of the new culture approached should be presented. After shortening the Discussion, the manuscript appears suited for publication in the World Journal of Diabetes.

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Name of Journal: World Journal of Diabetes

ESPS Manuscript NO: 5539

Title: Identification and differentiation of PDX1 β -cell progenitors within the human pancreatic epithelium

Reviewer code: 00625524

Science editor: Song, Xiu-Xia

Date sent for review: 2013-09-13 15:02

Date reviewed: 2013-11-07 18:28

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"/> Existed	<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)		BPG Search:	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E (Poor)	<input type="checkbox"/> Grade D: rejected	<input type="checkbox"/> Existed	<input type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

COMMENTS TO AUTHORS

In the present study, the authors have reported, proliferation of epithelial cells during in vitro pancreatic mesenchymal stem cell expansion. These enriched epithelial cells express developmental transcription factors indicative of β cell progenitors such as PAX4 and RFX6. The authors have developed a tissue culture medium which will maintain epithelial cell phenotype and allow long term study of these cells. This medium minimized epithelial cell de-differentiation and MSC overgrowth. The authors further confirmed the epithelial nature of cells using lentiviral reporters. This is a novel medium and will have important implications in the treatment of diabetes using β cell transplant. Manuscript is well written, title is appropriate, the abstract is well written and given clear picture of the methods used. The authors have provided enough experimental evidence to show that β cells remain in differentiated state in newly designed culture media for more than 25 days and thus have a potential to be used for transplant in future. The authors have been working in this area for a long time and have published number of papers. The current investigation is the extension of their ongoing research and has made significant contribution to diabetic research.