

ESPS Peer-review Report

Name of Journal: World Journal of Gastroenterology

ESPS Manuscript NO: 3619

Title: THE ROLE OF STEM CELLS IN REPAIR OF LIVER INJURY: EXPERIMENTAL AND CLINICAL BENEFIT OF TRANSFERRED STEM CELLS ON LIVER FAILURE

Reviewer code: 00011994

Science editor: Zhai, Huan-Huan

Date sent for review: 2013-07-03 15:08

Date reviewed: 2013-07-04 14:34

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 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)		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

This review overviews the transplantation of mature hepatocytes, hepatic progenitor cells, mesenchymal stem cells and so on. The review seems to give important information to the readers but extensive corrections are necessary before acceptance. There are so many typographical and grammatical errors in the text. The author should add the description about iPS cell-derived hepatocytes. Recent progress on iPS cell technology is remarkable and the differentiation method into hepatocyte-like cells has been established. Takebe et al. has published excellent paper on transplantation of iPS cell-derived organ bud this month in Nature.

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Title: THE ROLE OF STEM CELLS IN REPAIR OF LIVER INJURY: EXPERIMENTAL AND CLINICAL BENEFIT OF TRANSFERRED STEM CELLS ON LIVER FAILURE

Reviewer code: 01560464

Science editor: Zhai, Huan-Huan

Date sent for review: 2013-07-03 15:08

Date reviewed: 2013-07-05 16:34

CLASSIFICATION	LANGUAGE EVALUATION	RECOMMENDATION	CONCLUSION
<input type="checkbox"/> Grade A (Excellent)	<input type="checkbox"/> Grade A: Priority Publishing	Google Search:	<input checked="" type="checkbox"/> Accept
<input type="checkbox"/> Grade B (Very good)	<input checked="" 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

1) The author review hepatic cell types involving liver regeneration and cell transplantation therapies for liver failure , and the article is important significance to know about the role of stem cells in repair of liver injury . 2) I suggest that the article can be published in the form of review in world J Gastroenterology.

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ESPS Manuscript NO: 3619

Title: THE ROLE OF STEM CELLS IN REPAIR OF LIVER INJURY: EXPERIMENTAL AND CLINICAL BENEFIT OF TRANSFERRED STEM CELLS ON LIVER FAILURE

Reviewer code: 00006353

Science editor: Zhai, Huan-Huan

Date sent for review: 2013-07-03 15:08

Date reviewed: 2013-07-09 06:15

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 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"/> Existed	<input type="checkbox"/> Major revision
		<input type="checkbox"/> No records	

COMMENTS TO AUTHORS

This manuscript reviewed liver stem cells and regeneration. Although the author described previous work on liver stem cells, this review did not cite recent studies. 1. English proofreading is required. 2. The author should include recent findings on liver stem cells and discuss them. Foxl1 is a marker of bipotential hepatic progenitor cells in mice. Sackett SD, Li Z, Hurtt R, Gao Y, Wells RG, Brondell K, Kaestner KH, Greenbaum LE. Hepatology. 2009 Mar;49(3):920-9. Potential hepatic stem cells reside in EpCAM+ cells of normal and injured mouse liver. Okabe M, Tsukahara Y, Tanaka M, Suzuki K, Saito S, Kamiya Y, Tsujimura T, Nakamura K, Miyajima A. Development. 2009 Jun;136(11):1951-60. Foxl1-Cre-marked adult hepatic progenitors have clonogenic and bilineage differentiation potential. Shin S, Walton G, Aoki R, Brondell K, Schug J, Fox A, Smirnova O, Dorrell C, Erker L, Chu AS, Wells RG, Grompe M, Greenbaum LE, Kaestner KH. Genes Dev. 2011 Jun 1;25(11):1185-92. Continuous cell supply from a Sox9-expressing progenitor zone in adult liver, exocrine pancreas and intestine. Furuyama K, Kawaguchi Y, Akiyama H, Horiguchi M, Kodama S, Kuhara T, Hosokawa S, Elbahrawy A, Soeda T, Koizumi M, Masui T, Kawaguchi M, Takaori K, Doi R, Nishi E, Kakinoki R, Deng JM, Behringer RR, Nakamura T, Uemoto S. Nat Genet. 2011 Jan;43(1):34-41. Fate tracing of mature hepatocytes in mouse liver homeostasis and regeneration. Malato Y, Naqvi S, Schürmann N, Ng R, Wang B, Zape J, Kay MA, Grimm D, Willenbring H. J Clin Invest. 2011 Dec;121(12):4850-60. FGF7 is a functional niche signal required for stimulation of adult liver progenitor cells that support liver regeneration. Takase HM, Itoh T, Ino S, Wang T, Koji T, Akira S, Takikawa Y, Miyajima A. Genes Dev. 2013 Jan 15;27(2):169-81. In vitro expansion of single Lgr5+ liver stem cells induced by Wnt-driven regeneration. Huch M, Dorrell C, Boj SF, van Es JH, Li VS, van de Wetering M, Sato T, Hamer K,

Sasaki N, Finegold MJ, Haft A, Vries RG, Grompe M, Clevers H. *Nature*. 2013 Feb 14;494(7436):247-50. 3. There is no description on iPS cells. 4. The author needs to describe recent papers showing direct reprogramming to hepatocytes. Induction of functional hepatocyte-like cells from mouse fibroblasts by defined factors. Huang P, He Z, Ji S, Sun H, Xiang D, Liu C, Hu Y, Wang X, Hui L. *Nature*. 2011 May 11;475(7356):386-9. Direct conversion of mouse fibroblasts to hepatocyte-like cells by defined factors. Sekiya S, Suzuki A. *Nature*. 2011 Jun 29;475(7356):390-3. 5. Page 3. Peak of DNA synthesis after PHx is different among species. It is better to show both mouse and rat. 6. Page 3. Ref 4 shows 69 cell divisions, but it remains unclear whether mature hepatocytes or progenitor cells exhibit such potential. 7. The author can draw figures showing different stem cells in the liver. 8. Please check abbreviations. No need to abbreviate CFU-E. Some abbreviations are duplicated. 9. Use either cholangiocytes or biliary epithelial cells. 10. Page 10. The author needs to describe factors for liver stem/progenitor cells, not for regeneration induced by PHx.