

## ESPS PEER-REVIEW REPORT

**Name of journal:** World Journal of Gastroenterology

**ESPS manuscript NO:** 29259

**Title:** Clinical translation of bioartificial liver support systems with human pluripotent stem cell-derived hepatic cells

**Reviewer's code:** 02551224

**Reviewer's country:** Italy

**Science editor:** Ze-Mao Gong

**Date sent for review:** 2016-08-05 13:21

**Date reviewed:** 2016-11-10 16:25

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	Google Search:	<input checked="" type="checkbox"/> Accept
<input checked="" type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<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"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

Dear Authors, I have a minor observation regarding the chapter "Needs for bioartificial liver systems in clinical practice", line four. It is not clear in the text which liver transplant list it refers to. You need to refer to Reference 4 for that. Anyway, I think your article is clear and well written, and can be published without changes.

## ESPS PEER-REVIEW REPORT

**Name of journal:** World Journal of Gastroenterology

**ESPS manuscript NO:** 29259

**Title:** Clinical translation of bioartificial liver support systems with human pluripotent stem cell-derived hepatic cells

**Reviewer's code:** 02860897

**Reviewer's country:** Japan

**Science editor:** Ze-Mao Gong

**Date sent for review:** 2016-08-05 13:21

**Date reviewed:** 2016-11-17 18:16

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	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 checked="" type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input type="checkbox"/> Grade C: Good		<input type="checkbox"/> Duplicate publication	
<input checked="" type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Plagiarism	<input checked="" type="checkbox"/> Rejection
<input type="checkbox"/> Grade E: Poor	<input type="checkbox"/> Grade D: Rejected	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Minor revision
		BPG Search:	<input type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

Shortage of donated organ is a world-wide health problem in transplantation. In the field of the liver disease, artificial liver support (ALS) is temporary alternative method and it can maintain patient to maintain favorable condition until liver transplantation or regeneration of liver. ALS is divided into non-biological type and biological type. Non-biological type comprises plasma exchange and another blood purification method such as hemodiafiltration. This method has been established and widely used in Japan whose number of transplantation is very small. This method can easily replenish depleted clotting factors and arouse patient with deep coma. On the contrary, the role of biological artificial liver support is not clear. Efficacy in elimination of toxic substance is not clear and clinical effect is questionable. Author's statement is reasonable; however, these are already known matters. High time to publish review article is just after settlement of these clinical problems.

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**Name of journal:** World Journal of Gastroenterology

**ESPS manuscript NO:** 29259

**Title:** Clinical translation of bioartificial liver support systems with human pluripotent stem cell-derived hepatic cells

**Reviewer's code:** 03213892

**Reviewer's country:** 0

**Science editor:** Ze-Mao Gong

**Date sent for review:** 2016-08-05 13:21

**Date reviewed:** 2016-11-15 08:50

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input checked="" type="checkbox"/> Grade A: Priority publishing	Google Search:	<input checked="" type="checkbox"/> Accept
<input checked="" type="checkbox"/> Grade B: Very good	<input type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<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"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

This is an interesting topic and a clinically relevant treatment type. The authors have introduced clinical translation of bioartificial liver support systems with human pluripotent stem cell-derived hepatic cells. The manuscript described in detail "Needs for bioartificial liver systems in clinical practice", "Sources of hepatocytes for BAL systems" and "Successes and challenges of developing clinical BAL systems". Indeed I find the work compelling and worthy of publication pending minor revisions. 1. I am hampered by a lack of about BAL's introduction, eg. different types of BAL and their respective characteristics? Which type is more suitable for hPSC-derived hepatic cells culture? Which type is more suitable for clinical uses? 2. Are there any problems in the proliferation and differentiation of hPSC-derived hepatic cells in the BAL support system? How to solve these problem?

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**Name of journal:** World Journal of Gastroenterology

**ESPS manuscript NO:** 29259

**Title:** Clinical translation of bioartificial liver support systems with human pluripotent stem cell-derived hepatic cells

**Reviewer's code:** 00069130

**Reviewer's country:** United States

**Science editor:** Ze-Mao Gong

**Date sent for review:** 2016-08-05 13:21

**Date reviewed:** 2016-11-16 04:14

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	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"/> The same title	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good		<input type="checkbox"/> Duplicate publication	
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input type="checkbox"/> Minor revision
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		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

## COMMENTS TO AUTHORS

It will be nice if you can discuss on bioreactors which are essential for iPSC-hepatocyte like cell production in large scale.