

## ESPS PEER-REVIEW REPORT

**Name of journal:** World Journal of Stem Cells

**ESPS manuscript NO:** 17168

**Title:** Simplified three-dimensional culture system for long-term expansion of embryonic stem cells

**Reviewer's code:** 02446101

**Reviewer's country:** China

**Science editor:** Yue-Li Tian

**Date sent for review:** 2015-02-22 17:37

**Date reviewed:** 2015-03-14 22:21

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 checked="" 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 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
	<input type="checkbox"/> Grade D: Rejected	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

In your study , you designed a simplified and efficient system which mimics the microenvironment in vivo for long-term culture and maintenance of embryonic stem cells.And the culture system is efficient and reproducible.For this study, I am interested.Further studies are expected.

## ESPS PEER-REVIEW REPORT

**Name of journal:** World Journal of Stem Cells

**ESPS manuscript NO:** 17168

**Title:** Simplified three-dimensional culture system for long-term expansion of embryonic stem cells

**Reviewer's code:** 00742043

**Reviewer's country:** China

**Science editor:** Yue-Li Tian

**Date sent for review:** 2015-02-22 17:37

**Date reviewed:** 2015-03-21 11:29

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 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 checked="" 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

The aim of this study is to develop a 3-D culture system for propagation and maintenance of mouse embryonic stem cells (ESCs) using Dex-SH and PEG-4-Acr. The authors observed ESCs grown in the 3-D scaffolds proliferated for extended periods of time with characteristics of self-renewal and pluripotency. The data are interesting. Comment: 1. The statistical analysis and P value should be shown in the Fig.4C, Fig 5B and Fig 7B. 2. Fig.6; The 3-D grown ESCs formed teratomas in mice should be shown by immunohistochemistry with the stainings of 3 germ layer markers. 3. Fig. 7; The differentiation of 3-D grown ESCs into selected lineages such as muscle cell and neuron should be shown in specific markers at protein level.

## ESPS PEER-REVIEW REPORT

**Name of journal:** World Journal of Stem Cells

**ESPS manuscript NO:** 17168

**Title:** Simplified three-dimensional culture system for long-term expansion of embryonic stem cells

**Reviewer's code:** 00504335

**Reviewer's country:** Czech Repoublic

**Science editor:** Yue-Li Tian

**Date sent for review:** 2015-02-22 17:37

**Date reviewed:** 2015-04-12 13:47

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 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 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 type="checkbox"/> No	

## COMMENTS TO AUTHORS

The authors described a novel system for a long term propagation of ESC. According to the authors, the system enables to growth ESC for more that 3 weeks without regular passaging, without changing medium, etc. It is new and very good. Authors claim that colonies of ESC progresively increased in size over time. It is not sufficient as a prove that the cells proliferated, nor PB staining is conclusive. The authors should clearly demonstrate the increase in the number of living cells per ml and compare the number of ESC after one or two weeks in their 3D system with classical 2D system. If it is true that the cells progressively grow for more that 3 weeks, without passaging and without any care, it is very new and should be published.. However, one wonder why cell in such a high starting concentrations/ml can grow for such a long period of time. The medium should be exhausted. What was concentration of cells per ml after 3 weeks, if the original cell concentration was 1 or even  $4 \times 10^6$ /ml?