

ESPS PEER-REVIEW REPORT

Name of journal: World Journal of Gastroenterology

ESPS manuscript NO: 31331

Title: The role of hyperplasia and hypertrophy in liver regeneration: tracking single transplanted cells

Reviewer's code: 02861035

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Science editor: Ya-Juan Ma

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CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	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"/> The same title	<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"/> 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

In this paper, Marongiu et al described the mechanism of hepatocyte regenerate the liver after acute liver injury model using partial hepatectomy as model. The authors clearly described hepatocytes undergo hypertrophy and hyperplasia after liver injury, with the occurrence of hypertrophy only observed within the first 24 hours, and hepatocyte hyperplasia is mainly responsible for the remaining liver regeneration event. The findings of this paper show similar results to what have been shown by Miyaoka et al in 2012. The authors use transplantation studies in rats as an alternative method to investigate the mechanism of hepatocyte regenerates the liver after acute liver injury. I think there are several minor points the authors need to address before publishing this paper: 1. The authors could show the dynamics of host hepatocytes regeneration by tracking non-GFP hepatocytes hyperplasia and hypertrophy. This will address that transplanted cells behave similarly as the host hepatocytes, and they do not have an advantage in proliferation. 2. In the second paragraph of discussion, the authors wrote "Our findings indicate that hyperplasia stands as the main biological mechanism sustaining restoration of liver mass following PH in the rat, while hypertrophy does not



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appear to contribute to the process to any measurable extent..” This is a big statement to make as the authors did observed hepatocyte size change at 24 hours. Unless the authors inhibit hypertrophy and proved liver regeneration is unaltered under this circumstances, this statement does not stand. I suggest the authors rephrase this statement or withdraw this statement.