

PEER-REVIEW REPORT

Name of journal: *World Journal of Hepatology*

Manuscript NO: 78965

Title: Long-term and non-invasive in vivo tracking of DiD-labeled human hepatic progenitors in chronic liver disease models

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 02446101

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Professor, Surgeon

Reviewer's Country/Territory: China

Author's Country/Territory: India

Manuscript submission date: 2022-07-26

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-07-27 06:49

Reviewer performed review: 2022-07-28 09:41

Review time: 1 Day and 2 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Peer-reviewer statements	Peer-Review: [<input checked="" type="radio"/>] Anonymous [<input type="radio"/>] Onymous Conflicts-of-Interest: [<input type="radio"/>] Yes [<input checked="" type="radio"/>] No
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SPECIFIC COMMENTS TO AUTHORS

In this study, lipophilic fluorescent dye DiD-labeled fetal hepatic progenitor cells (fHPCs) were transplanted into chronic liver disease (CLD) mice livers. The results showed that DiD labeling of cells enabled long-term and non-invasive tracking of transplanted cells in vivo up to 80 days. This manuscript provides a new method to understand the homing, distribution, and differentiation into the desired cell types contributing to the organ regeneration. However, there're still two issues which should be addressed. 1. "DiD labeling" Section: Why did the authors choose 1×10^5 cells (100 μ L) to inject? Did you try other dosages? 2. Why did you choose human fetal liver cells instead of animal cells? So, revision should be recommended for this manuscript.

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Title: Long-term and non-invasive in vivo tracking of DiD-labeled human hepatic progenitors in chronic liver disease models

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05185768

Position: Editorial Board

Academic degree: MD, MSc, PhD

Professional title: Associate Professor

Reviewer's Country/Territory: Thailand

Author's Country/Territory: India

Manuscript submission date: 2022-07-26

Reviewer chosen by: AI Technique

Reviewer accepted review: 2022-08-13 16:49

Reviewer performed review: 2022-08-14 04:19

Review time: 11 Hours

Scientific quality	[<input checked="" type="radio"/>] Grade A: Excellent [<input type="radio"/>] Grade B: Very good [<input type="radio"/>] Grade C: Good [<input type="radio"/>] Grade D: Fair [<input type="radio"/>] Grade E: Do not publish
Language quality	[<input checked="" type="radio"/>] Grade A: Priority publishing [<input type="radio"/>] Grade B: Minor language polishing [<input type="radio"/>] Grade C: A great deal of language polishing [<input type="radio"/>] Grade D: Rejection
Conclusion	[<input checked="" type="radio"/>] Accept (High priority) [<input type="radio"/>] Accept (General priority) [<input type="radio"/>] Minor revision [<input type="radio"/>] Major revision [<input type="radio"/>] Rejection
Re-review	[<input checked="" type="radio"/>] Yes [<input type="radio"/>] No



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Peer-reviewer statements	Peer-Review: [<input checked="" type="radio"/>] Anonymous [<input type="radio"/>] Onymous Conflicts-of-Interest: [<input type="radio"/>] Yes [<input checked="" type="radio"/>] No
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SPECIFIC COMMENTS TO AUTHORS

Thank you very much for the opportunity to review this manuscript. In this manuscript, the authors evaluated DiD labeling of cells and found this staining could be enable long-term and non-invasive tracking of transplanted cells in vivo up to 80 days. DiD might be the promising staining and further evaluation is needed. The topic is interesting and the manuscript is well written. I have few comments as following; the author should discuss the novelty of DiD in liver transplanted cell more in introduction part. The full name of DiD and SCID should be added in the abstract part. The number/values at the figures are too small and it will be better to increase the font size.