

PEER-REVIEW REPORT

Name of journal: World Journal of Hepatology

Manuscript NO: 59138

Title: Adult human liver slice cultures: Modelling of liver fibrosis and evaluation of new anti-fibrotic drugs

Reviewer's code: 02444986

Position: Editorial Board

Academic degree: MD

Professional title: Academic Research, Doctor, Professor, Research Scientist

Reviewer's Country/Territory: Turkey

Author's Country/Territory: France

Manuscript submission date: 2020-08-27

Reviewer chosen by: Ya-Juan Ma

Reviewer accepted review: 2020-09-22 09:29

Reviewer performed review: 2020-09-25 10:27

Review time: 3 Days

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" 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 Grade E: Do not publish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 type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

Authors developed 3d human liver tissue slice (HLS) culture for 21 days from patients with F0-1 vs. F2-4 fibrosis, created fibrosis model (FLS) for hepatitis C (HCV) and alcoholic hepatitis (ALD) or HCV and steatohepatitis (NASH), and then evaluated the anti-fibrotic effects of ursodeoxycholic acid (UDCA) and/or alpha-tocopherol. My comments:

- Since fibrosis was induced by HCV infection in HLS, what is the rationale for developing HLS from patients with F0-1 vs. F2-4. Is there any data that shown that HLS obtained from patients with different levels of fibrosis (F0-4) differ in their fibrosis score on HLS cultures?
- Fibrosis is a response to chronic inflammation, therefore HLS culture for 21 days is not a suitable model for studying fibrosis in chronic hepatitis.
- Color label of each group should be same all through the figures. Use of line charts and bar graphs in an intermingled way is confusing. If line charts were preferred, the figures would be simplified and become much more easy to understand.
- This manuscript has too much data from several studies; data for development of HLS cultures for 21 days from patients with F0-1 vs. F2-4 fibrosis; creating a fibrosis on HLS model with HCV, ethanol (ALD) and palmitic acid (NASH), evaluation of anti-fibrotic effects of UDCA and alpha-tocopherol on HCV fibrosis model of HLS culture.
- Why were not ethanol and palmitic acid used alone as a fibrosis model of HLS culture, instead of combining with HCV infection?
- Table 3 and 4 should be omitted since the data was given Figure 8-11.
- If there was any data supporting the notion that precision medicine could be based on HLS culture for evaluating effectiveness of different drugs, it must be emphasized within the result and discussion sections.