

ANSWERING REVIEWERS



April 12, 2013

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: 2333-manuscript.doc).

Title: The role of activin A in carbon tetrachloride-induced acute liver injury

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Name of Journal: *World Journal of Gastroenterology*

ESPS Manuscript NO: 2333

The manuscript has been improved according to the suggestions of reviewers:

1 Format has been updated

2 Revision has been made according to the suggestions of the reviewer

(1) This paper language was edited by professional editing company (please refer to the Certificate), and further corrected by collaborator in Benaroya Research Institute, USA.

(2) The other errors were corrected according to Reviewer's comments.

(3) Activin signaling transduction was simply introduced in Discussion part. It was discussed that activin A participated in the process of CCl₄-induced liver injury via inhibiting proliferation and DNA synthesis of hepatocytes. So activin A aggravated the CCl₄-induced liver injury.

(4) Not only Smads but also ARIPs are the signal transduction molecules of activin. In this study, we focused on the Smad3 because it is a key molecule in the smads-dependent pathway of activin. In the further studies, the other relative molecules expressions in signal transduction of activin will be evaluated as well to elaborate the mechanism of activin in liver injury.

(5) By administration of CCl₄ and anti-activin A antibody, round necrotic lesions was mainly around the hepatic lobule portal area.

(6) n=12 (each group) means 12 mice in each group, not 3 mice in each group for 1, 3, 5, 7 days. Total mice were 48 for 1, 3, 5, 7 days.

(7) In Fig 3, CCl₄ directly induced necrotic death of hepatocytes in large area. The necrotic hepatocytes can not release cytokines, but the decomposition product of necrotic tissues as inflammatory stimulator could induce hepatocytes activation to secrete activin A. Thus, activin A protein was expressed in hepatocytes around the necrotic area and the activated hepatocytes have larger clear nuclei.

3 References and typesetting were corrected

Thank you again for publishing our manuscript in the *World Journal of Gastroenterology*.

Sincerely yours,

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