Answers for comments from reviewers

11 January 2013

Dear Editor,

Please find enclosed the edited manuscript in Word format (file name: Revised WJG 1727 Resistin.doc).

Title: Resistin mediates the hepatic stellate cell phenotype

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Name of Journal: *World Journal of Gastroenterology*

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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). The data on increase in cell migration, with or without anti-MCP-1 antibodies, should be confirmed in 'Boyden chamber experiments.

We agreed with this comment. This experiment has been done and added to the text. Thus, HSC migration was assessed by wound scratch assay and a modified Boyden chamber assay. Please refer to figure 3B.

(2). Figure 4C-4D shows activation of the NF-kappa B pathway but no information on the functional role of this pathway is provided. Additional experiments should be performed to assess which of the observed biologic actions depend on NF-kappaB activation in HSC or KC.

Yes. Effect of NF-kB on HSC IL-6/MCP-1 expression has been just determined and data showed that NF-kB inhibition (PDTC 100 μM) reversed resistin-induced HSC IL-6/MCP-1 expression. Please refer to figure 4E.

(3). Figure 5 adds little to the paper and should be removed, describing the data in the text.

We agreed. This figure was removed.

(4). It is surprising that TGF-beta1 released by KC did not result in further expression in HSC. Please comment.

It is documented that TGF beta1 could promote HSC TGF beta1 expression and this forms a vicious circle for HSC activation and liver fibrosis. However, in this study, increased TGF beta1 of KCs by resistin didn't further enhance HSC TGF beta1. We propose that resistin may stimulate KCs to release other mediators that down-regulate HSC TGF beta1 expression.

(5). Figure 7 is very poor and should be redrawn.

Yes. This diagram was already redrawn with more detailed illustration.

(6). Possible mechanisms underlying the increase in adipose tissue (and not liver) resistin after BDL.

It has been indicated that in the *in vivo* and *ex vivo* studies, increased TNF α and insulin in BDL cirrhotic rats could stimulate adipose resistin expression. This information was added to the text.

(7). Fig. 1B: please correct the legend to the y axis.

Yes. It has been done. mRNA fold induction was changed to protein fold induction.

(8). There are several typos and syntax errors that should be corrected.

Yes. We have carefully corrected as much as we could.

3 References and typesetting were corrected

Yes.

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

Sincerely yours,

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