

February 28,2016

Dear Editor,

Thank you very much for your kind e-mail and advice regarding the review. We have tried to revise our manuscript entitled " *Faecalibacterium prausnitzii* supernatant ameliorates dextran sulfate sodium induced colitis by regulating Th17 cell differentiation". I am sending the revised manuscript. Our responses to reviewers were added in this letter.

Please find enclosed the edited manuscript in Word format (file name: 24364-revised manuscript.doc).

Title: *Faecalibacterium prausnitzii* supernatant ameliorates dextran sulfate sodium induced colitis by regulating Th17 cell differentiation

Authors: xiaoli huang, xin zhang, xianyan fei, zhaogui chen, yanping hao, shu zhang, mingming zhang, yanqiu yu and chenggong yu

Name of Journal: *World Journal of Gastroenterology*

ESPS Manuscript NO: 24364

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.
- 3.We added one author (Ming-ming Zhang)missed.

(1) **Comment:** How was colon histopathologic grading calculated?

Response: The histopathologic grading of colon damage was scored by two blinded pathologists under microscope based on Neurath Scoring criteria ,so we changed the word “caculated” to “scored”.

(2) **Comment:** How many samples per animal were considered?

Response: One sample per animal were considered. One sample detected three times by PCR, ELISA and FACS.

(3) **Comment:** How was colon length measured?

Response: The distance from cecum to anus was measured.

(4) **Comment:** The protocol for isolation of mononuclear cells from mouse spleen should be added, or at least a reference. the protocol for isolation of mononuclear cells from mouse spleen should be added, or at least a reference.

Response: The protocol and a reference for isolation of mononuclear cells from mouse spleen had been added and marked in red in our revised manuscript .

(5) **Comment:** Quantification for immunohistochemistry should be briefly explained.

Response: Cells stained with the antibodies were calculated by random selection of five fields under microscope at 200x magnification.

(6) **Comment:** In the Results, the statistical analyses are not always clear, I think Authors should add in the figures some horizontal lines, showing between which samples the comparison was made.

Response: We have added the comparison sample in each figure comment . we also added some figures in the article and marked in red.

(7) **Comment:** Discussion is too long and should be reduced.

Response: Discussion has been reduced.

(8) **Comment:** TITLE: 'DSS' should be written in full 'cell' and not 'cells' . ABSTRACT: Need to mention that UC (in full) was induced by DSS. INTRODUCTION: Needs to be written more scientifically and concisely. Need to avoid subjective comparisons such as

'supernatant was better than....'. A hypothesis or specific aim is required. **METHODS:** Well explained but past tense is required. **RESULTS:** English grammar attention is required in virtually every sentence. However, the data are clear and well presented. **DISCUSSION:** There should be some discussion of the potential influence of the F prau growth medium and also some reference to other studies (eg Studies by Wang-H and also Prisciandaro-L).

Response: Thanks for the reviewer's kind suggestion. We have revised according to these comments and marked in red in the article.

(9) **Comment:** Responses on the treatment should be different in males and females ?

Response: Male mice have strong body, the result of experiments are not easy to influence by environment factors. However, the immunological functions of female mice would be affected by some factors such as pregnant and illumination.

(10) **Comment:** IL-4 plasma level: written in the text "IL-17A, IL-6 and IL-4 were significantly higher in the model group." While on the Figure 3., the plasma level of IL-4 is in decrease when compared to the controls.

Response: We are very sorry for these mistakes and have corrected and marked in red in the paper. Thanks for your careful guidance.

(11) Comment: How the mucosa was separated, what was the amount and protein content?

Response: We got some mucosa from mid-colon samples to extract RNA by ophthalmic scissors. The intestinal mucosa has a lot of epithelial cells, lymphocytes, macrophages, etc., which can secrete abundant secreted immunoglobulin A(S Ig A) and various cytokines to form an intestinal immune barrier.

I hope that these revisions are satisfactory and the revised version will be acceptable for publication in *World Journal of Gastroenterology*.

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

Yours sincerely,

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