



19th of July 2013

Dear Editor,

Please find enclosed the edited manuscript in Word format (with highlight changes: file names: **3484-Review-revision-hg.doc**).

Title: Changes of phasic and tonic smooth muscle function of jejunum in Type 2 Diabetic GK Rats

Author: Jingbo Zhao, Pengmin Chen, Hans Gregersen

Invited article: ID, 02526196

Name of journal: *World Journal of Diabetes*

ESPS Manuscript NO: 3484

Columns: Basic Research

Responses to the comments from Editor:

1, For manuscripts submitted by non-native speakers of English, please provided language certificate by professional English language editing companies.

If you believe that the language of your manuscript has reached or exceeded Grade A and would like to sign a guarantee. However, if we later find that the language of your manuscript has not reached Grade A, your paper will be rejected

Reply: The paper has been carefully read by Professor Hans Gregersen who is the previous director of our research Center; he made a lot of changes of English language and grammar. Now the English language has been approved considerably.

Please highlight the changes made to the manuscript according to the peer-reviewers' comments

Reply: We have highlighted the changes made to the manuscript according to the peer-reviewers' comments.

2, Please provide the zip code

Reply: zip code has been added.

3, Telephone and fax should consist of +, country number, district number and telephone and fax number. The format for telephone and fax numbers should be like this: Telephone: +44-121-4142972 Fax: +44-121-6272384

Reply: Denmark doesn't have district number. The format for telephone and fax numbers have been corrected.

4, Please revise the format like this *p*, Please check across the text.

Reply: The format is revised throughout the text.

5, no more than 26 words in the conclusion of the abstract

Reply: The words are reduced to 24 now.

6, Please write a summary of less than 100 words to outline the most innovative and important arguments and core contents in your paper to attract readers

Reply: Core tip was added.

7, Please delete the extra space, So are the followings

Reply: The extra space is deleted throughout the paper.

8, Please put "Figure 1" in the text, non appear in the subtitle

Reply: Done.

9, So many references cited one time is not allowed. Please revised less than 7 references

Reply: References were reduced to 6 in here.

10, Please give main title of figure 2A-B

Reply: The main title was added.

Point to point response to the reviewer (02446617)'s comments

The main goal of this paper was to examine whether the function of jejunal smooth muscle was altered during diabetes. To do this, the authors proposed to generate phasic and tonic stress-strains curves in WT and diabetic rats before and after parasympathetic stimulation with carbachol. The experimental plan seems to be sound and follows a logical progression.

Reply: We appreciate the positive comments. Following we provide a point-to-point response to each specific comment.

There are some concerns however, that the authors should address before the paper is acceptable for publication.

Specific comments:

1-The reported increase in the thickness of the villous and c-muscle layers are questionable.

Examination of the amalgamate in Figure 3 suggests no differences, in the case of c-muscle, and a slight decrease, in the case of the villous. A t-test analysis should be done to compare the differences in each layer between groups.

Reply: The circumferential muscle layer and villous height are thicker in GK rats than in normal rats. Both t-test and one-way analysis have been done for each layer between two groups, and the significant difference is found for circumferential muscle layer and villous height.

2- A table showing body weight and glucose levels data should be included.

Reply: A table showing body weight and glucose levels data has been added.

3- Based on the presented data in Figure 7, one can hardly say that there is a difference between groups. Error bars should be shown in both directions. It is not clear what groups are being compared in page 10, paragraph 2, last sentence.

Reply: We agree with the comments. Now the detail data of both GK and Normal groups at maximum contraction points were provided in the text in relation to Figure 7. These make clearer for looking at a difference between two groups. Furthermore, the Figure 7 was revised with showing error bars in both directions according to the suggestions. We also added the error bars in both directions for Figure 8.

The revision was also made in page 10, paragraph 2, and last sentence. Now it is clear to indicate that GK and Normal groups are being compared.

4- The n value for each experiment is unclear. Did the authors were able to obtained data from all 7 GK and 9 WK rats? Are all figures constructed using 7 GK and 9 WK jejunal segments? If not, what is the n value for all experiments? If n values are less than 5, then, more experiments are needed.

Reply: All data were obtained from 7 GK and 9 WK rats.

5- Acronyms should be defined when first used.

Reply: Now the acronyms are defined when first used.

6- In the last sentence of the abstract, why would the authors thought that this response could have been lost in GK rats?

Reply: Because previous study in the diabetic colon (Kim et al., 2011) has shown that the contractility of the proximal colon in response to carbachol was significantly weaker in diabetic rats.

7- It seems that sentence 3 in the Results section of the Abstract is similar to the previous sentence.

Reply: Now we have deleted second sentence in the Results section of the Abstract.

8- The grammar of the paper should be thoroughly revised.

a-Correct syntax of the second to last sentence in the Conclusions section of the Abstract.

Reply: Conclusion section of the Abstract has been rewritten now.

b-Consider "The hypothesis of the present study was..." and "The aim of this study was to compute stress-strain data..." in the last paragraph of the Introduction.

Reply: According to the suggestions, these two sentences have been revised.

c-Revise the first sentence of the Mechanical Data Analysis Section in the Materials and Methods.

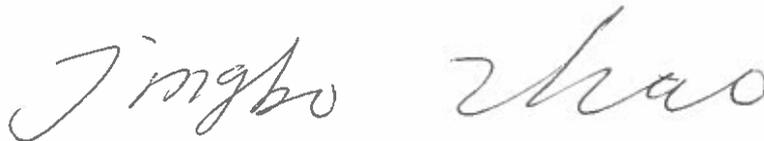
Reply: The first sentence was revised to "*Seven inherited type 2 diabetic rats (Goto-Kakizaki rats, GK group), 12 weeks old, and weighting about 330g,) were purchased from Taconic Europe DK-8680 Ry, Denmark.*"

d-Consider "as function of strains is shown in Figure 8." In the last paragraph of the Results.

Reply: According to the suggestions, this sentence has been revised.

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

Sincerely yours,

A handwritten signature in cursive script that reads "Jingbo Zhao".

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Mech-Sense,

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