Author's response to reviews

Title: Knockout of MIMP protein in Lactobacillus plantarum lost its regulation of intestinal permeability on NCM460 epithelial cells via the zonulin pathway

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Author's response to reviews: see over
Dear Dr. Magdalena Morawska,

Thank you for your encouraging letter and valuable advice. We also greatly appreciate the positive comments from the reviewers.

We would like to re-submit our manuscript, which has been revised according to the comments of the reviewers. We have addressed each comment raised by the reviewers and revised the paper accordingly. All amendments are highlighted in red font in the revised manuscript. Point-by-point replies are included below. Furthermore, this manuscript has been edited and proofread by a medical English teacher of Sun Yat-sen University. We hope that the revised manuscript is now acceptable for publication in your journal.

We look forward to hearing from you soon.

Sincerely yours,

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Response to Reviewers’ Comments:

Editorial comments:

1) requesting copy editing

We recommend that you copyedit the paper to improve the style of written English. If this is not possible, you may need to use a professional language editing service. For authors who wish to have the language in their manuscript edited by a native-English speaker with scientific expertise, BioMed Central recommends Edanz (www.edanzediting.com/bmc1). BioMed Central has negotiated a 10% discount to the fee charged to BioMed Central authors by Edanz. Use of an editing service is neither a requirement nor a guarantee of acceptance for publication. For more information, see our FAQ on language editing services at http://www.biomedcentral.com/authors/authorfaq/editing.

Answer: Thank you for your comments. Our manuscript has been edited and proofread by a medical English teacher of Sun Yat-sen University. We hope that the revised language is now acceptable for publication.

2) requesting 'authors contributions' section

In order to give appropriate credit to each author of a paper, the individual contributions of authors to the manuscript should be specified in this section.

According to ICMJE guidelines, An 'author' is generally considered to be someone who has made substantive intellectual contributions to a published study. To qualify as an author one should 1) have made substantial contributions to conception and design,
or acquisition of data, or analysis and interpretation of data; 2) have been involved in
drafting the manuscript or revising it critically for important intellectual content; 3)
have given final approval of the version to be published; and 4) agree to be
accountable for all aspects of the work in ensuring that questions related to the
accuracy or integrity of any part of the work are appropriately investigated and
resolved. Each author should have participated sufficiently in the work to take public
responsibility for appropriate portions of the content. Acquisition of funding,
collection of data, or general supervision of the research group, alone, does not justify
authorship.

We suggest the following kind of format (please use initials to refer to each author's
contribution): AB carried out the molecular genetic studies, participated in the
sequence alignment and drafted the manuscript. JY carried out the immunoassays. MT
participated in the sequence alignment. ES participated in the design of the study and
performed the statistical analysis. FG conceived of the study, and participated in its
design and coordination and helped to draft the manuscript. All authors read and
approved the final manuscript.

All contributors who do not meet the criteria for authorship should be listed in an
acknowledgements section. Examples of those who might be acknowledged include a
person who provided purely technical help, writing assistance, or a department chair
who provided only general support.

Answer: Thank you for your comments. We have added the 'authors contributions'
section at the last of the manuscript as following:
Zhi-Hua Liu carried out the molecular biological studies, participated in the binding assay and drafted the manuscript. Liang Kang and Chao Li carried out the clinical verification and revised the manuscript. Mei-Jin Huang and Xing-wei Zhang participated in the permeability determination. Nan-Qi Huang and Huan-Long Qin performed the mice study. Zhi-Hua Liu and Jian-Ping Wang participated in the design of the study and performed the statistical analysis. Mary Pat Moyer participated in its design and coordination and helped to draft the manuscript. All authors read and approved the final manuscript.

3) requesting 'competing interests' section

A competing interest exists when your interpretation of data or presentation of information may be influenced by your personal or financial relationship with other people or organizations. Authors must disclose any financial competing interests; they should also reveal any non-financial competing interests that may cause them embarrassment were they to become public after the publication of the manuscript.

Authors are required to complete a declaration of competing interests. All competing interests that are declared will be listed at the end of published articles. Where an author gives no competing interests, the listing will read 'The author(s) declare that they have no competing interests'.

**Answer:** We have made the declaration. Thank you!
The current paper from Liu et al. is dedicated to functional analyses of micro integral membrane protein (MIMP) of Lactobacillus plantarum. Based on the presented results the authors conclude that MIMPS plays an important protective role in intestinal permeability in vitro and in vivo. The data are sound and methods are well described. Overall the discussion and conclusion are in accordance with results.

**Answer:** Thank you for your positive comments. We have revised the manuscript according to your advice, and all amendments are highlighted in red in the revised manuscript. Point-by-point replies are included below.

Minor comments:

1) Abstract needs editing: more detailed information in results, improve language, typos and abbreviations, conclusions may be at least partially moved to results.

**Answer:** We have revised the abstract according to your advice. Please check! Thank you!

2) The authors may wish to speculate/discuss potential implication of their observations.

**Answer:** We have added a paragraph to discuss the implication of our observation in the discussion part. Please check! Thank you!

3) Legends to Figures 2 and 3 are not sufficiently descriptive and need to be revised (labeling, description, statistical analyses). Number of animals used etc.
**Answer:** We have made the corresponding revision as your suggestion. Please see the figure legends part and check! Thank you!

4) Figures: labeling needs revision for example - letters should not be inside of the figures. Signs for statistical analyses should be clearly labeled similarly in all figures (for example next to the group).

**Answer:** We have modified the figures as your advice. Please check! Thank you!

5) Some language editing is needed.

**Answer:** We have asked a medical English teacher of Sun Yat-sen University to edit and proofread the manuscript. Thank you!

Reviewer #2:

The manuscript "Knockout of MIMP protein in Lactobacillus plantarum lost its regulation of intestinal permeability on NCM460 epithelial cells via the zonulin pathway" needs to be totally revised when it comes to the language. The study is very interesting, methods are appropriate and the data are sound. But, the manuscript is very hard to read and to understand even for me that is in the field.

**Answer:** Thank you for your positive comments. We have asked a medical English teacher of Sun Yat-sen University to edit and proofread the manuscript. Please check. Thank you!