

PEER-REVIEW REPORT

Name of journal: *World Journal of Diabetes*

Manuscript NO: 83989

Title: Alteration of intestinal microbiota is associated with diabetic retinopathy and its severity: samples collected from southeast coast Chinese

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 06520427

Position: Peer Reviewer

Academic degree: MD

Professional title: Assistant Professor, Research Fellow

Reviewer's Country/Territory: United States

Author's Country/Territory: China

Manuscript submission date: 2023-03-09

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-03-10 03:29

Reviewer performed review: 2023-03-20 01:47

Review time: 9 Days and 22 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
Creativity or innovation of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation

Scientific significance of the conclusion in this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
Language quality	<input checked="" type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

Different intestinal microbiota may be relevant to same diseases among different persons from different areas and with different dietary habits. The association between intestinal microbiota and DR remains unclear. This study revealed that alteration of gut microbiota was associated with diabetic retinopathy and its progression, and further, this association was mediated by multiple mechanisms. Manuscript is sufficiently novel and very interesting to warrant publication. The Results are presented clearly and authors made a detailed and informative discussion of the results. Furthermore, minor comment that I would like to propose: - Title reflected the main subject of the manuscript. - The abstract summarized and reflected the described in the manuscript. - Key words reflected the focus of the manuscript. - The manuscript adequately described the background, presented status and significance of the study. - The manuscript described methods (e.g., Study Population and Sample Collection, DNA extraction and amplification, Library construction and sequencing, Bioinformatic analysis and Statistical Analysis, etc.) in adequate detail. - The research objectives are achieved by the experiments used in this study. Authors explored the differential bacteria between diabetic patients with DR and

without DR, as well as diabetic patients with PDR and NPDR in south Zhejiang and north Fujian in China - The manuscript interpreted the findings adequately and appropriately, highlighting the key points concisely, clearly and logically. - Manuscript included sufficient, good quality Figures and Tables. Please add the explanation of "NS" to the comments on the table. - The manuscript cited a huge of appropriately the latest, important and authoritative references in the introduction and discussion sections. - The manuscript is well, concisely and coherently organized and presented and the style is accurate and appropriated. I recommend accepting this manuscript for publication after a minor language and grammar editing.

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Title: Alteration of intestinal microbiota is associated with diabetic retinopathy and its severity: samples collected from southeast coast Chinese

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 06521182

Position: Peer Reviewer

Academic degree: MD, PhD

Professional title: Associate Professor, Research Associate

Reviewer's Country/Territory: United States

Author's Country/Territory: China

Manuscript submission date: 2023-03-09

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-03-13 01:31

Reviewer performed review: 2023-03-20 09:52

Review time: 7 Days and 8 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input checked="" type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No novelty
Creativity or innovation of this manuscript	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No creativity or innovation

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Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous
	Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

Reconstruction of gut microbiota might be a promising strategy for prevention of diabetic retinopathy. In this interesting study, 16S rRNA gene sequencing was used to evaluate the differences of intestinal flora between DM patients and healthy subjects, diabetic patients with DR and without DR, respectively. In addition, the analysis of the correlation between the gut flora differences and clinical indexes was taken. The manuscript is well-written and gives new information to the DR field. The discussion is adequate and points that the study lacked the detection at species level, as well as the measurement of microbial metabolites and related clinical indicators. Further studies are needed to explore the causal relationship between intestinal microbiota and the development of DR. I am very grateful that the authors cite a very large number of references to explain the association between the gut microbiota and diabetic retinopathy. However, I have noticed that there are relatively few articles in the past two years, and some excellent articles have been published recently in related fields. It would be better if it could be increased.