

PEER-REVIEW REPORT

Name of journal: *World Journal of Diabetes*

Manuscript NO: 87685

Title: Depletion of gut microbiota facilitates fibroblast growth factor 21-mediated protection against acute pancreatitis in diabetic mice

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05842572

Position: Editorial Board

Academic degree: MD

Professional title: Full Professor

Reviewer's Country/Territory: Ukraine

Author's Country/Territory: China

Manuscript submission date: 2023-08-22

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-08-29 03:54

Reviewer performed review: 2023-09-04 16:22

Review time: 6 Days and 12 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input checked="" type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" 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 type="checkbox"/> Grade B: Good <input checked="" 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 type="checkbox"/> Grade B: Good <input checked="" type="checkbox"/> Grade C: Fair <input type="checkbox"/> Grade D: No scientific significance
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" 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 type="checkbox"/> Minor revision <input checked="" type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input type="checkbox"/> Yes <input checked="" 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

In this study entitled “Depletion of gut microbiota facilitates the effect of FGF21 on alleviating acute pancreatitis in diabetic mice” authors conducted comprehensive assessment the prophylactic effect of FGF21 used alone and in combination with antibiotic cocktail in db/db mice with concomitant acute pancreatitis. I have the following comments to make: 1. Article title (and results description as a whole). Article title does not quite correctly reflect the study design and findings. According to the manuscript, authors used FGF21 and Abx in a prophylactic mode (before the induction of pancreatitis). Therefore, FGF21 and depletion of gut microbiota PREVENT (or decrease sensitivity to) rather than alleviate ceruletide-induced AP in diabetic mice. Authors should correct the interpretation of obtained results: it was prevention rather than treatment. 2. Introduction. The phenomenon of 'a substantial upregulation of FGF21 in AP' revealed by the authors in preliminary research (Have the results of this research been published?) contradicts with commonly accepted hypothesis considering pancreatitis as an FGF21-deficient state. Please, comment the contradiction. 3. Methods. Authors should provide citation in the AP model description, and separate section



**Baishideng
Publishing
Group**

7041 Koll Center Parkway, Suite
160, Pleasanton, CA 94566, USA
Telephone: +1-925-399-1568
E-mail: bpgoffice@wjgnet.com
https://www.wjgnet.com

'Study design' is strongly recommended in order to clarify animal groups description. E.g., what is normal control group (NC)? Are these healthy wild-type mice or db/db mice without AP? Which strain of mice was actually used as a normal control: C57BLKS/J, db/m, or some other? db/db mice without AP cannot be referred as normal control at least because these animals have dysbiosis (decreased Firmicutes abundance, lactobacilli and bifidobacteria count etc). If there was no normal control, please compare groups of manipulated animals (AP group, FGF21-group and FGF21+Abx-group) with db/db animals, and don't refer db/db mice as normal control. 4. Figures. Figure 2 duplicates data from Figure 3. It is appropriate to use only Figure 3. Conclusion: The manuscript requires major revision. Nevertheless, the article can be recommended for publication after eliminating the shortcomings indicated in the review.

PEER-REVIEW REPORT

Name of journal: *World Journal of Diabetes*

Manuscript NO: 87685

Title: Depletion of gut microbiota facilitates fibroblast growth factor 21-mediated protection against acute pancreatitis in diabetic mice

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05226098

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Director, Professor

Reviewer's Country/Territory: Japan

Author's Country/Territory: China

Manuscript submission date: 2023-08-22

Reviewer chosen by: AI Technique

Reviewer accepted review: 2023-09-05 22:48

Reviewer performed review: 2023-09-06 03:38

Review time: 4 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input checked="" type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Novelty of this manuscript	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Good <input checked="" 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 type="checkbox"/> Grade B: Good <input checked="" 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 type="checkbox"/> Grade B: Good <input type="checkbox"/> Grade C: Fair <input checked="" type="checkbox"/> Grade D: No scientific significance
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" 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 type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input checked="" 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

The rat caerulein acute pancreatitis model has a low incidence of pancreatic necrosis and produces relatively mild pancreatitis. Clinically, overuse of antibiotics in acute pancreatitis has been shown to lead to the development of resistant bacteria and is not beneficial. It is necessary to explain in detail the significance of adding antibiotics in the treatment of acute pancreatitis in this study.

RE-REVIEW REPORT OF REVISED MANUSCRIPT

Name of journal: *World Journal of Diabetes*

Manuscript NO: 87685

Title: Depletion of gut microbiota facilitates fibroblast growth factor 21-mediated protection against acute pancreatitis in diabetic mice

Provenance and peer review: Unsolicited Manuscript; Externally peer reviewed

Peer-review model: Single blind

Reviewer's code: 05226098

Position: Editorial Board

Academic degree: MD, PhD

Professional title: Director, Professor

Reviewer's Country/Territory: Japan

Author's Country/Territory: China

Manuscript submission date: 2023-08-22

Reviewer chosen by: Cong Lin

Reviewer accepted review: 2023-10-05 09:42

Reviewer performed review: 2023-10-05 09:59

Review time: 1 Hour

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input checked="" type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" 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
Peer-reviewer	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous



**Baishideng
Publishing
Group**

7041 Koll Center Parkway, Suite
160, Pleasanton, CA 94566, USA
Telephone: +1-925-399-1568
E-mail: bpgoffice@wjgnet.com
<https://www.wjgnet.com>

statements

Conflicts-of-Interest: [] Yes [Y] No

SPECIFIC COMMENTS TO AUTHORS

Please explain the mechanism by which the effect of FGF21 is enhanced by the addition of antibiotics in this study. Also please consider the disadvantages of disrupting the intestinal flora with antibiotics.