

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Gastroenterology

**Manuscript NO:** 60309

**Title:** Effect of berberine on hyperglycaemia and gut microbiota composition in type 2 diabetic Goto-Kakizaki rats

**Reviewer's code:** 03477900

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Associate Professor

**Reviewer's Country/Territory:** Turkey

**Author's Country/Territory:** China

**Manuscript submission date:** 2020-10-24

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2020-10-25 20:32

**Reviewer performed review:** 2020-10-27 09:45

**Review time:** 1 Day and 13 Hours

<b>Scientific quality</b>	<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 Grade E: Do not publish
<b>Language quality</b>	<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
<b>Conclusion</b>	<input type="checkbox"/> Accept (High priority) <input checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
<b>Re-review</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>Peer-reviewer statements</b>	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



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## **SPECIFIC COMMENTS TO AUTHORS**

Acceptable

## PEER-REVIEW REPORT

**Name of journal:** World Journal of Gastroenterology

**Manuscript NO:** 60309

**Title:** Effect of berberine on hyperglycaemia and gut microbiota composition in type 2 diabetic Goto-Kakizaki rats

**Reviewer's code:** 05403223

**Position:** Peer Reviewer

**Academic degree:** MD

**Professional title:** Professor

**Reviewer's Country/Territory:** China

**Author's Country/Territory:** China

**Manuscript submission date:** 2020-10-24

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2020-10-24 14:16

**Reviewer performed review:** 2020-10-28 12:38

**Review time:** 3 Days and 22 Hours

<b>Scientific quality</b>	<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
<b>Language quality</b>	<input type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input checked="" type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
<b>Conclusion</b>	<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
<b>Re-review</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Peer-reviewer statements</b>	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**

1. The major concern is the significance of this study. Little innovation was found in this article since there were too many studies on the regulative effect of berberine on diabetes and intestinal microbiota. In this study, the changes of intestinal microbiota, serum glucose, lipid, etc. were observed after the treatment of berberine, and a simple correlation analysis was conducted. However, it is impossible to prove a causal link between the intestinal microbiota and the above metabolic parameters or to illustrate the mechanism behind the whole events. Besides, how do you estimate the credibility of the correlation analysis?

2. There is a bug in study design: a normal control group was absent. As a result, you could not tell the characteristic of intestinal microbiota in normal rats, making it hard to evaluate those changes after the treatment good or bad. So additional experiments are needed to make up for this defect, if the lab and funds permit.

3. The study also detected the levels of serum fasting GLP-1 and the histological change of pancreatic islets. However, that was just a simple overlay of different parameters to make this article seems colorful, since the logical link between them and the whole events was obscure. It is suggested that, further experiments are needed to prove the relationship between the intestinal microbiota and GLP-1, or just delete this part.

4. The manuscript needs to be revised to improve the English and correct grammar errors, which exist throughout the manuscript.