

PEER-REVIEW REPORT

Name of journal: World Journal of Diabetes

Manuscript NO: 63858

Title: Mechanisms linking gut microbial metabolites to insulin resistance

Reviewer's code: 03270754

Position: Editorial Board

Academic degree: MD, PharmD, PhD

Professional title: Assistant Professor, Associate Professor

Reviewer's Country/Territory: China

Author's Country/Territory: South Korea

Manuscript submission date: 2021-02-10

Reviewer chosen by: AI Technique

Reviewer accepted review: 2021-02-11 09:53

Reviewer performed review: 2021-02-18 07:04

Review time: 6 Days and 21 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 Grade E: Do not publish
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 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

Reviewers' comments:: Major revision

1. This research focused on mechanisms linking microbial metabolites to insulin resistance, after check the pubmed, there are 10 articles about Gut Microbiota and Type 2 Diabetes, this manuscript focus on insulin resistance, also important.
2. But I think some places need further revise.
3. Firstly, the structure of the article needs to be optimized, such as the principal phenomena of insulin resistance this part need simplify, because this knowledge was acknowledged by us. After the Effects of gut bacterial metabolites on the pathogenesis of insulin resistance this part, I think must conclusion the mechanism most good add a Figure, also give some treatment method now from the references.
4. Figure 1 cannot represent the meaning, insulin result muscle normal insulin action and resistance? In which condition? Very confused.
5. English I think need further polish although looks good.

PEER-REVIEW REPORT

Name of journal: World Journal of Diabetes

Manuscript NO: 63858

Title: Mechanisms linking gut microbial metabolites to insulin resistance

Reviewer's code: 03465463

Position: Editorial Board

Academic degree: FCPS, PhD

Professional title: Adjunct Professor, Professor

Reviewer's Country/Territory: Taiwan

Author's Country/Territory: South Korea

Manuscript submission date: 2021-02-10

Reviewer chosen by: Ya-Juan Ma

Reviewer accepted review: 2021-02-25 09:20

Reviewer performed review: 2021-02-25 09:46

Review time: 1 Hour

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
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
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



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SPECIFIC COMMENTS TO AUTHORS

This review article conducted the mechanisms linking gut microbial metabolites to insulin resistance (IR). It is an interesting title. Please take care of the concerns below. 1. Hepatokines were ignored in this report. Why? 2. The intestinal gluconeogenesis (IGN) is participated. What is the functional stimulator in addition to food? Please add into the discussion. 3. The potential gut microbiota involved in IR did not mention in clear. Are they associated with the metabolites only for IR? 4. Chronic application of antibiotics in relation with IR is important. Please conduct it in detail. 5. In this report, dietary microbial metabolites were the major targets. Please add it in the title. 6. SCFAs were the major metabolites and mainly produced from what kinds of microbiota in gut? It was not indicated in the conclusion.