

## PEER-REVIEW REPORT

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

**Manuscript NO:** 75763

**Title:** Associations of gut microbiota with dyslipidemia based on sex differences in subjects from Northwestern China

**Provenance and peer review:** Invited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 02537353

**Position:** Editorial Board

**Academic degree:** BSc

**Professional title:** Associate Professor

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

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

**Manuscript submission date:** 2022-02-18

**Reviewer chosen by:** AI Technique

**Reviewer accepted review:** 2022-02-18 07:46

**Reviewer performed review:** 2022-02-23 12:55

**Review time:** 5 Days and 5 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 Grade E: Do not publish
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

<b>Peer-reviewer statements</b>	Peer-Review: [ <input type="checkbox"/> ] Anonymous [ <input checked="" type="checkbox"/> ] Onymous Conflicts-of-Interest: [ <input type="checkbox"/> ] Yes [ <input checked="" type="checkbox"/> ] No
-------------------------------------	---

## SPECIFIC COMMENTS TO AUTHORS

The aim of the authors was to investigate the associations of GM characteristics with serum lipid profiles under sexual dimorphism in a Chinese population. The topic could be interesting but the manuscript presents different critical points Major revisions 1) The authors use the characteritazion of metabolic profile of microbiota the dated database FAPROTAX. Actually there is the PICrust 2 that makes predictions starting from the reads themselves and this brings the prediction closer to reality. 2) Usually and rightly to define the metabolic profile the microbiota studies evaluate the fecal SCFA, why the authors did not define the SCFA signature in stool of patients 3) The discussion is very long and verbose, please short it and focused on very important points 4) The number of enrolled patients is low for the conclusions of the authors Minor Revisions 1) Please specify in the section Study Design "206 adult individuals " the number of patients and Healthy controls. In addition, please define how you have enrolled the Healthy controls 2) Please replace subjects with patients

## PEER-REVIEW REPORT

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

**Manuscript NO:** 75763

**Title:** Associations of gut microbiota with dyslipidemia based on sex differences in subjects from Northwestern China

**Provenance and peer review:** Invited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 02623966

**Position:** Editorial Board

**Academic degree:** MD, MSc, PhD

**Professional title:** Attending Doctor, Research Scientist

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

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

**Manuscript submission date:** 2022-02-18

**Reviewer chosen by:** Xin Liu

**Reviewer accepted review:** 2022-04-13 12:15

**Reviewer performed review:** 2022-04-13 12:16

**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 checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No



**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

<b>Peer-reviewer statements</b>	Peer-Review: [ <input type="checkbox"/> ] Anonymous [ <input checked="" type="checkbox"/> Y ] Onymous Conflicts-of-Interest: [ <input type="checkbox"/> ] Yes [ <input checked="" type="checkbox"/> Y ] No
-------------------------------------	---

#### **SPECIFIC COMMENTS TO AUTHORS**

It is an interesting manuscript. Authors succeed to present their data in a clear way adding information to the existing literature. Therefore, I have no corrections to do and the manuscript can be published unaltered.

## PEER-REVIEW REPORT

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

**Manuscript NO:** 75763

**Title:** Associations of gut microbiota with dyslipidemia based on sex differences in subjects from Northwestern China

**Provenance and peer review:** Invited Manuscript; Externally peer reviewed

**Peer-review model:** Single blind

**Reviewer's code:** 00053786

**Position:** Editorial Board

**Academic degree:** FAASLD, MD, PhD

**Professional title:** Research Scientist

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

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

**Manuscript submission date:** 2022-02-18

**Reviewer chosen by:** Xin Liu

**Reviewer accepted review:** 2022-04-11 13:26

**Reviewer performed review:** 2022-04-20 16:45

**Review time:** 9 Days and 3 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
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 checked="" type="checkbox"/> Accept (General priority) <input type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<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

Guo L et al. present a retrospective study concerning the association between gut microbiota and dyslipidemia in male and female subjects from Northwestern China. The study may be of interest to the medical-hepatologist community in regards to the sex differences shown in the features of the gut microbiota community and dyslipidemia. However, there are several concerns that need to be amended.

1) The term sex dimorphism is not correct. Commonly, sex dimorphism is about traits that are only seen in one sex but not in the other. In general, any dyslipidemia was not exclusive to one sex or the other, and dysbiosis is present in both sexes. Therefore, the title and other parts of the text should read: sex differences or gender differences where the term sex dimorphism was originally written. For example, the new title can be: Sex differences in the association of gut microbiota with dyslipidemia in subjects from Northwestern China.

2) a) Add the time of patient recruitment when this study was carried out. b) The total number of patients was 142 subjects, 81 subjects and 61 controls. Please clarify this data in the text of the methodology section

3) Discussion: In regards to the functional analysis of the metabolic pathways that were differentially activated in the study patients, it would be of great value that the authors discuss the influence of diet in the subjects vs controls, and between genders because diet composition influences GM diversity. These findings have implications for the management of obesity-related chronic diseases. Can the authors add some information about the local diet or changes in the local diet that may lead to the prevalence of dyslipidemia?