

Dear Editors and Reviewers:

Thank you for your letter and for the reviewers' comments concerning our manuscript entitled "Gut Microbiota in Obesity" (ID:65608). Those comments are all valuable and very helpful for revising and improving our paper. We have studied comments carefully and have made correction which we hope meet with approval. The main corrections in the paper and the responds to the reviewers and editors' comments are as flowing:

Reviewer #1:

Scientific Quality: Grade C (Good)

Language Quality: Grade A (Priority publishing)

Conclusion: Major revision

Specific Comments to Authors: My main concern is related to the methods and results sections. In the discussion section, a study limitation paragrah should be included. Please, see the uploaded file.

1. There is no methods section. Since it is a review, a methods section should be included. Search terms, search databases and search time period should be included. They should estimate the numbers of clinical trials (if any) and preclinical studies published from XXXX through XXXX (years).

✓ **Response: The Methods section has been added in the manuscript.**

2. A table with preclinical and clinical data should be included. A description of the most relevant results should be included in this section.

✓ **Response: Table1 with preclinical and clinical data has been included. The Results section has been added in the manuscript.**

3. The authors should highlight the limitations of their review.

✓ **Response: The Study Limitations section has been added in the manuscript.**

4. The legend of figure 1 is poor. Additional information is required. For a better visualization of table 1, I would recommend placing it horizontally rather than vertically.

✓ **Response: The legend of figure 1 is modified. Table 1 (now, it is Table 2) is**

placed horizontally now.

Reviewer #2:

Scientific Quality: Grade B (Very good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Minor revision

Specific Comments to Authors: In this review, authors comprehensively analyzed the role of gut microbiota in the occurrence and development of obesity. But there are some details that need to be improved.

1. "More than 90% of...body itself" is irrelevant to refs 7.

✓ Response: It was modified to "Up to 100 trillion symbiotic microbes live in the gut, called the gut microbiota, which comprises 10 times the number of cells in the body itself^[7]". the refs 7 was replaced by the following reference: Bäckhed F, Ley RE, Sonnenburg JL, Peterson DA, Gordon JI. Host-bacterial mutualism in the human intestine. Science 2005; 307(5717): 1915-1920 [PMID: 15790844 DOI: 10.1126/science.1104816]

2. Some references need to be updated (refs 14) or added (Strict statistical analysis showed that...and progression. \ Butyrate is the colon's main energy source...butyrate-SESN2/CRTC2 pathway\ More than 12...identified.).

✓ Response: These references have been updated or added.

3. "Transplanting gut microbes from obese mice...in the host" is inconsistent with research of refs 19, in which the donors were conventionally raised animals, not obese mice.

✓ Response: It has been amended to "conventionally raised mice"

4. It is suggested to use a table to summarize the association between gut microbiomes and obesity.

✓ Response: Now, we use Table 1 to summarize the association between gut microbiomes and obesity.

Reviewer #3:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Major revision

Specific Comments to Authors: The review written by Bing-Nan Liu et al. summarizes the current understanding of the association of gut microbiota and obesity. The review is comprehensive and is well written. However, there are a couple of concerns that need to be addressed. Major points.

1. The definition of obesity is different among various countries. The authors should consider and state on that point.

✓ Response: It has been added in the Introduction. The World Health Organization defines obesity as having a Body Mass Index (BMI) greater than 30, but the definition varies from country to country. In China, for example, a BMI of 28 or greater is considered obese.

2. The persons with obesity can be divided into two different types of obesity, subcutaneous obesity and visceral obesity. The authors should review the gut microbiota in association with the different types of obesity.

✓ Response: We have reviewed the gut microbiota in association with the different types of obesity in the Section "ASSOCIATION OF THE GUT MICROBIOTA WITH OBESITY".

Editorial Office's comments and suggestions

1. Scientific quality: The manuscript describes a minireview of the gut microbiota in obesity. The topic is within the scope of the WJG. (1) Classification: Grade B and two Grades C; (2) Summary of the Peer-Review Report: The review summarizes the current understanding of the association of gut microbiota and obesity. The review is comprehensive and is well written. The questions raised by the reviewers should be answered; (3) Format: There is 1 table and 1 figure; (4) References: A total of 87 references are cited, including 28 references published in the last 3 years; (5) Self-cited references: There is no self-cited

reference; and (6) References recommendations: The authors have the right to refuse to cite improper references recommended by the peer reviewer(s), especially references published by the peer reviewer(s) him/herself (themselves). If the authors find the peer reviewer(s) request for the authors to cite improper references published by him/herself (themselves), please send the peer reviewer's ID number to editorialoffice@wjgnet.com. The Editorial Office will close and remove the peer reviewer from the F6Publishing system immediately.

✓ **Response: Thanks for the comments. Questions raised by the reviewers have been answered above.**

2. Language evaluation: Classification: Grade A and two Grades B. A language editing certificate issued by AJE was provided.

3. Academic norms and rules: No academic misconduct was found in the Bing search.

4. Supplementary comments: This is an invited manuscript. The study was supported by Dalian Science and Technology Bureau, Department of Education of Liaoning Province. The topic has not previously been published in the WJG.

5. Issues raised:

(1) The authors did not provide the approved grant application form(s). Please upload the approved grant application form(s) or funding agency copy of any approval document(s);

✓ **Response: We provide the approved grant application forms now.**

(2) The authors did not provide original pictures. Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor;

✓ **Response: We provide the original figure in PPT now.**

and (3) If an author of a submission is re-using a figure or figures published elsewhere, or that is copyrighted, the author must provide documentation that the previous publisher or copyright holder has given

permission for the figure to be re-published; and correctly indicating the reference source and copyrights. For example, “Figure 1 Histopathological examination by hematoxylin-eosin staining (200 ×). A: Control group; B: Model group; C: Pioglitazone hydrochloride group; D: Chinese herbal medicine group. Citation: Yang JM, Sun Y, Wang M, Zhang XL, Zhang SJ, Gao YS, Chen L, Wu MY, Zhou L, Zhou YM, Wang Y, Zheng FJ, Li YH. Regulatory effect of a Chinese herbal medicine formula on non-alcoholic fatty liver disease. World J Gastroenterol 2019; 25(34): 5105-5119. Copyright ©The Author(s) 2019. Published by Baishideng Publishing Group Inc[6]”. And please cite the reference source in the references list. If the author fails to properly cite the published or copyrighted picture(s) or table(s) as described above, he/she will be subject to withdrawal of the article from BPG publications and may even be held liable. 6 Recommendation: Conditional acceptance.

- ✓ Response: The tables and figures are original, and there are no such problems.