

Dear Editor,

**We have revised our paper carefully following reviewers' useful suggestions. Revised parts are highlighted in yellow in the text. In the present form we hope that our paper could be accepted for publication.**

Reviewer #1:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Minor revision

Specific Comments to Authors: Journal: World Journal of Gastroenterology Manuscript ID: 88656 Authors: Giuseppe Marano et al. Title: "Microbiota in women: the secret of psychological and physical well-being" The scope and topic of this paper are interesting. However, one crucial aspect to consider for enhancing the quality of the paper and improving its readability is the need to restructure the main text. This restructuring should focus on making the role of microbiota in psychological and physical well-being more apparent, particularly during different stages of a woman's life (e.g., puberty, pregnancy, pre/post-menopause). To achieve this goal, creating specific subsections (and their subheadings) may be beneficial. Additionally, the text should emphasize the differences in the impact of microbiota on women compared to men. Furthermore, it is essential to highlight the pathophysiological mechanisms and clinical implications. These changes will enhance the text's flow, facilitate better navigation for readers, and underscore the paper's scope.

**Thank you for your useful suggestion. Specific subsections have been added with different stages of a woman's life and differences between women and men have been stressed. Please consider that we must remain within the length limits of an editorial and cannot be exhaustive on the topic.**

Some additional points that should be considered: 1. Given the authors' focus on gut microbiota, the authors should consider whether it would be more appropriate to update the title to more accurately reflect this emphasis.

**The title has been changed following your suggestion.**

2. In the abstract, the authors mention "gut microbiota"; however, in other parts, only the term "microbiota" is used (e.g., "from the intertwining of biological mechanisms between the microbiota and the female genital system). Therefore, it would be helpful if the authors could clarify whether they are referring to the gut only or to other specific types of microbiota such as the vaginal microbiota or the microbiota in general. Likewise in the main text.

**Thank you for noting this. We have revised the entire text and we had specified the types of microbiota (for example gut microbiota or vaginal microbiota). When you read microbiota it refers to microbiota in general.**

3. Please include the appropriate reference for the statement: "Its strength lies in diversity: a microbiota with high diversity can maintain certain functions and is usually a guarantee of a healthy immune system, while a low diversity microbiota can more easily undergo deficiencies and can cause impaired immune defences." Similarly, for the statement: "In the first years of life, a real genetic "imprinting" of the

microbiota takes place, which then determines the state of health in the rest of existence: there it is written whether or not there is predisposition toward certain diseases”.

**Appropriate references have been cited.**

Other comments: 1. I believe that there are some opportunities to refine the language in the manuscript, which could further enhance overall clarity.

**The manuscript has been revised by a native English.**

Reviewer #2:

Scientific Quality: Grade B (Very good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Major revision

Specific Comments to Authors: This manuscript addresses a timely topic and makes a relevant contribution to the field which elaborates the important role of microbioata in disease and cited several regulatory mechanisms to intervene for possible therapeutic purpose. However, some major revisions are needed before it can be published. 1. The manuscript tries to achieve too many things for the beneficial role of microbioata in women. The author only describes several points related to the beneficial role of microbioata but fails to justify any with proper molecular mechanism. It is very obvious that when subjected to external changes, the balance of microbiota community can be affected, leading to dysregulation of bodily functions and diseases. The authors must provide a table mentioning summary of pathogenic microbiota and the related signaling pathways.

**Thank you for your kind comments. As this is an Editorial paper, our goal was to stress the importance of this topic and to recommend further research on main controversial points. Following your useful suggestions, along with similar suggestions raised by reviewer #1, we have added requested information in the paper. We have also added table 1.**

2. The figures seem to be incomplete, there is absolutely no need for two separate figures which could have been easily merged (Fig1 and Fig 2) citing more details about the factors affecting microbiota-associated chronic inflammation in healthy and disease state.

**Figures have been merged and modified as suggested (Figure 2).**

3. The author should discuss about the human microbiota composition in different locations as it is known that compared with gut, microbiota is also localized in other regions including the oral cavity, lung, vagina, and skin. The author must mention those in brief by providing proper reference.

**Thank you for this suggestion. It has been briefly explained in the Introduction section.**

4. To strengthen the paper, the author can provide a figure by illustrating gut-brain axis interactions and the common factors contributing to the gut–brain activity.

**Figure has been provided as suggested (Figure 1).**

5. It is known that several diseases may be regulated by the microbiota in a sex-specific manner. Does microbiota modulate gender or SRY genes?

**Sex-specific interaction between host and microbe has been described in the Discussion Section.**

6. The author may rewrite the discussion part by elaborating the crosstalk between microbiota localization in different regions and also mentioning summary of pathogenic microbiota and the related signalling pathways.

**The Discussion has been largely revised following your useful suggestion. Please consider that we must remain within the length limits of an editorial and cannot be exhaustive on the topic.**

7. There are some repetitive and overlapping contents in introduction and conclusion section which could have been avoided.

**Overlapping contents have been deleted.**

8. There are some typos which could have been corrected before the final submission.

**Thank you. Typos have been corrected.**