

To: Editorial Office  
World Journal of Clinical Cases

Re: Manuscript NO: 80384

Title: Impact of Gut-Brain Interaction in Emerging Neurological Disorders

October 30, 2022

Dear Editor,

Thank you for your consideration of our manuscript and the very valuable comments of the reviewers. We are pleased to know that our work was rated as potentially acceptable for publication. We have read their comments carefully, and revised our manuscript accordingly.

A copy of the manuscript with revised changes highlighted in red color is prepared. Below we have included the comments and our point-by-point responses. Figure 1 is also revised to be more comprehensive. Besides, this manuscript has been edited again by a native English-speaking professional medical/scientific writer. A new formal certification for English editing is provided for your references.

Thank you again for your interest in our work. We hope we have addressed all the concerns and you would consider our manuscript for publication. If you have any further questions, please let us know, we will try our best to address that. We look forward to your continued correspondence.

Sincerely,  
Woon-Man Kung, M.D. M.Sc.  
Corresponding Author  
Associate Professor  
Academic Editor, World Journal of Clinical Cases

## Point-by-point responses to reviewers' comments

### Reviewer #1 Comments:

**Reviewer comment 1:** This is an interesting and well written manuscript on the impact of gut-brain interaction in emerging neurological disorders. The topic is rather new and really interesting. The authors well describe the different function of the brain cells and the relevance of the blood-brain barrier and its breackdown caudsed by microbiota, I have some minor questions for the authors.

**Author Response:** Thank you for your encouraging comments.

**Reviewer comment 2:** Which kind of clinically relevant diseases are caused by alterations of microbiota?

**Author Response:** Thank you for your kind reminds. We have added the corresponding comments in our “INTRODUCTION” section to address this point as follows.

Refined treatment schemes for gut disorders and related microbiota environments may be beneficial in improving the prognosis of neurological disorders such as Alzheimer's disease, Parkinson's disease, multiple sclerosis, and diabetic neuropathy [3, 4].

**Reviewer comment 3:** Additionally, which conditions may cause neurological disorders caused by dismicrobiota: age? organ transplantation? doseases related to gastrointestinal organs?

**Author Response:** Thank you for pointing out this important issue. We have amended our “VICIOUS NEUROINFLAMMATORY CIRCUIT IN THE BRAIN AUGMENTED BY BOTTOM-UP INTERFERENCE OF THE MICROBIOME-GUT-BRAIN AXIS” section to clarify this point with new citations as below.

Dysbiosis, an abnormal composition in microbiota, may be caused by conditions such as aging [17], gastrointestinal diseases [18], and renal transplantation [19, 20].

Thank you so much for your inspiring comments and for your time to review this manuscript. Hope that these revisions meet the requirements for publication.

### **Reviewer #2 Comments:**

**Reviewer comment 1:** Neurological disorders are gaining increasing recognition in the global population owing to the disruption of the gut-brain axis. The impact of dysbiosis on the gut microbiota often plays a crucial role in disease pathogenesis. A thorough understanding of this complex situation is essential for the development of new management strategies against various neurological disorders. The topic is interesting, it is clear which is the purpose of the paper.

**Author Response:** Special thanks to your evaluation, recognition, and inspiring feedback of the article. We really appreciate your rigorous review attitude. According to reviewer's suggestions, we have rearranged and enriched the contents of our manuscript. Contents of the revised section have been greatly modified to shape this paper more concrete and substantial. We have made significant adjustments of the revised version. We believe that the quality of the revised version is in a better state now.

Thank you so much for your inspiring comments and for your time to review this manuscript. Hope that these revisions meet the requirements for publication.