

October 13, 2018

Dear Editor.

Please find my revised manuscript in a Word format (file name: Shimizu minireview, 41795-revised).

Title: The gut microbiota in common elderly diseases affecting activities of daily living

Author: Yukihiro Shimizu

Name of Journal: World Journal of Gastroenterology

Manuscript No: 41795

The manuscript has been revised according to the suggestions of the reviewers.

Reviewer #1; Thank you for your comment on my manuscript.

Reviewer #2;

1. Two references are added as suggested.

The first one is a report by Nguyen TTT et al. and the description of the literature was now added on page 6 as followings.

“Recently, four cultivable butylate-producing bacteria were isolated from fecal samples from Japanese AD patients, all of which are considered to be unique operational taxonomic units. The analysis for biochemical mechanism of butylate production from those bacteria may contribute the novel approach to stimulate the butylate production in the gut, possibly leading to the improvement of the memory function in patients with AD<sup>[23]</sup>”.

The second one is a report by Spsychala MS et al. and the description of the literature was now added on page 12-13 as followings.

“A recent report using a mouse model of experimental transient cerebral ischemia induced by occlusion of middle cerebral artery showed that the composition of microbiota in young mice changed to that similar to uninjured aged mice after stroke, and transplantation of fecal gavage from young mice into those mice demonstrated beneficial effect on the outcome of stroke with

less infarct size and less mortality. One possible mechanism of the effect could be due to increased SCFA production from youthful microbiota, which was accompanied by lower inflammatory cytokine levels in the plasma. The report clearly indicate that gut microbiota could modify the outcome of stroke, and intervention with youthful microbiota may have a therapeutic potential for the disease<sup>[66]</sup>.

The other two reference are not added in the manuscript, because my review does not deal with vascular cognitive impairment and the preferential effects of butylate for suppressing the development of various age-related diseases are mentioned in some parts of the manuscript.

In addition, I have revised many small points as indicated by the reviewer including the title of the manuscript.

The whole manuscript was revised according to the “guideline” and “format”, and color images of the figures are provided.

The revised parts are now underlined.

I hope that the revised manuscript can be acceptable to the reviewers.

With best regards,

Yukihiro Shimizu, MD, PhD

Japan