

Review of: "Regular Consumption of Lacto-fermented Vegetables has Greater Effects on the Gut Metabolome Compared with the Microbiome"

Shiguo Chen

Potential competing interests: No potential competing interests to declare.

The authors studied the health benefit of lacto-fermented vegetables and its effect on human gut microbiome and metabolome. My major concern was the study design. It's better to provide volunteers with a certain amount of LFV (preferably the same food) every day. Another concern was about the results of fecal microbiome, I did not think the changes in gut microbiota was minor, compared with gut metabolome.

1. In the section of "Data Collection", I was worried about the influence of the uncontrolled variety and intake of LFV on the results.
2. The microorganism and metabolite on LFV should be concerned.
3. Please provide a clearer Figure 1.
4. In Figure 1, I was worried about the effect of different dietary patterns on the results of gut metabolome.
5. Although there was no significant difference on microbiome diversity, there were 17 bacteria which were significantly different between consumer and non-consumer (Figure S5), so the minor changes in fecal microbiome should be carefully considered.
6. The authors should discuss the significantly enriched metabolites (3-octenal, pentanal, etc.), not only discuss the effect of SCFAs.