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

Hongwei Li[1]

1 Xiamen University

Potential competing interests: No potential competing interests to declare.

This is an interesting study, and the researchers looked at the effects of LFV on the intestinal metabolome from a novel perspective. However, as the author puts it

“it is difficult to assess the extent to which baseline diets may have impacted microbiome and metabolome results, apart from LFV consumption”.

“this study was associative in nature and built upon pre-established LFV consumption patterns. This precluded us to make inferences on how fixed amounts of LFV consumed were associated with the specific microbiome and metabolome patterns observed. We also do not present any evidence of specific host physiological functions, beyond the fecal microbiome and metabolome. As such, it is unknown if increased LFV consumption impacts health in this study.”

As a result, the reviewer argues:

1. The proportion of LFV in total food consumption is small, so it is difficult to analyze the influence of LFV consumption on the gut microbiome and metabolism, and it is difficult for readers to obtain valuable conclusions or health suggestions from this study.

2. There are also many types of LFVs, and the characteristic microorganisms existing in LFVs have not been described.

3. There are many other factors that can affect i gut microbiome and metabolism, such as the proportion of total plant food consumption and the consumption of other fermented food (wine, vinegar, bread, etc.), which are not analyzed in detail by the author.

4. Failure to correlate LFV with any health outcome results in insufficient scientific significance of the study.