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

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Potential competing interests: No potential competing interests to declare.

I would like to thank the authors for their work evaluating the impact of the consumption of Lacto-fermented Vegetables on the gut microbiome and the metabolite production. The methodology is clearly described and allows a good understanding of the article.

Methods:

It is stated that subjects can have a BMI of 30 to 35. However, obesity is characterised by a BMI of over 30 and numerous studies have shown a gut dysbiosis associated with obesity. It would have been interesting not to include obese patients because this may bias the results.

Blood glucose may also be related to changes in microbiota, it would be interesting to include this parameter.

Results:

It would be interesting to know whether there is a significant difference between the two groups studied for general characteristics (age, gender, and ethnicity). It would also be interesting to know the smoking habits and physical activity of the participants, because these can largely modify the intestinal microbiota.

Have you statistically studied the impact of the increased consumption of plant-based foods (raw avocado, cooked carrots, cooked garlic, and almond butter) on the observed modifications in microbiota? Does higher consumption of these plant-based foods coincide with some modifications?

Describe the set of bacteria (genus, family) significantly reduced in non-consumers: ruminococcaceae, copprococus.

It could be interesting to examine whether there is an association between the observed bacterial and metabolome modifications and BMI

It would be interesting to examine association between dietary diversity and fecal metabolome modifications.

Discussion:

P14: Lachnospiraceaefamily → Lachnospiraceae family