Reviewer’s report

Title: Effects of short-term fructooligosaccharide intake on equol production in Japanese postmenopausal women consuming soy isoflavone supplements: A pilot study

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Reviewer: Taro Kishida

Reviewer’s report:

I thank you to give me a chance to review this very interesting paper.

In this paper, the authors examined interactive effect of soy isoflavone and fructoligosaccharide (FOS) on equol production in Japanese postmenopausal women. Contrary to expectations based on animal studies, they found that FOS intervention (5 g/day for 2 weeks) does not significantly modulate the capacity of intestinal microflora to produce equol in postmenopausal Japanese women who were classified as equol producers and non-producers. The experimental design is appropriate and the authors measured appropriate parameter.

- Major Compulsory Revisions

The authors used 3-way ANOVA with repeated measures (factors of FOS intervention, time, and equol status) to determine the effect of dietary FOS intervention on urinary equol to daidzein concentrations (Table 2). They analyzed separately, perhaps Baseline vs After 1 week and Baseline vs After 2 week. I think it should be analyzed together; Baseline vs After1 week vs After 2week. In addition, statistical method in Figure2 is not clear. Same as Table 2 ? The authors should describe clearly.

- Discretionary Revisions

The finding that FOS does not modulate equol production is very interesting. It should be clearly described in title.

FOS dose in this study should be compared with No-Observable-Effect Level.

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:

I declare that I have no competing interests