Reviewer's report

Title: Salivary Secretory Immunoglobulin A secretion increases after 4-weeks ingestion of chlorella-derived multicomponent supplement in humans: a randomized cross over study

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Reviewer: Takayuki Akimoto

Reviewer's report:

The authors examined effect of chlorella-derived multi-component supplementations on salivary SIgA levels in humans using a blind, randomized, crossover design. The major and only finding is an increase in SIgA after 4-weeks of the supplementation.

General Comments

A recurring motif that runs through the entire length of the paper is the lack of adequate discussion, and the writing is quite poor. My major concern is how much impact does the chlorella have on mucosal immune function. Indeed, the authors showed significant increase in salivary SIgA after 4-weeks chlorella ingestion, however absolute levels of SIgA look not very different form that of placebo group (And the SE looks very wide). I do not think this small difference makes any biological effects in general.

Specific comments:

There are substantial amount of grammatical errors in the manuscript.

In general, SIgA values are not stable in the morning, especially before breakfast. The reviewer suspects the authors found wide-variation of the value. If this is not the case, how do the author control the subjects or condition of sample collection. There is a lack of the descriptions of details in the method section.

Do you have any data showing SIgA values are stable in the morning?

The author should add adequate references to the second paragraph, line 3.

The reviewer does not think the 3rd paragraph in the discussion helps to understand the results of the study because the author never showed any data regarding with.

Generally speaking, lack of protein leads decreased immune functions. However, there are very few studies showing normal nutrition with supplements increase immune function. If you would prove this, the authors have to show evidences that subjects took enough energy intake (especially protein intake).

Level of interest: An article whose findings are important to those with closely
related research interests

**Quality of written English:** Needs some language corrections before being published

**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