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

**Version:** 1  **Date:** 14 April 2011

**Reviewer:** Nicolette C Bishop

**Reviewer's report:**

This manuscript aimed to determine whether chlorella supplementation enhances measures of SlgA in saliva. The rational itself was clear and apparently well founded, based on previous encouraging findings with regard to antibody titers against flu and IgA levels in breast milk. However, I have some serious concerns about the appropriateness of the methodology used to answer this research question. The authors themselves state in the discussion that other components in the supplement influence IgA levels, and therefore the whole premise that it is the chlorella that is the reason for the apparent beneficial effect (as outlined in the introduction) can simply not be confirmed. The authors themselves say in the discussion that this is the case, and also (rather worryingly) say that the participants themselves may have been of unequal nutritional status, i.e. the protein or vitamin content of the tablets may have acted to correct some underlying deficiency and hence the positive outcome (so why not check this beforehand?). As the authors were clearly aware of these confounding influences, it would have been prudent to use a placebo that differed only to the multi-component supplement in the chlorella content (incidentally there are no details of the placebo in the paper). The study design is not well controlled and this is of major concern and renders the findings somewhat meaningless with regard to the initial research question posed.

**Level of interest:** An article of limited interest

**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