Reviewer's report

Title: Randomised, double-blind, placebo-controlled clinical trial of the effects of L-ornithine on stress markers and sleep quality in healthy workers

Version: 1 Date: 25 March 2014

Reviewer: Victoria Bunik

Reviewer's report:

• Major Compulsory Revisions

1. In Fig. 1 – why concentrations/ratio at zero time are zeros? What are p values on the graph? If they refer to the final point (8 weeks) as indicated, then why the asterisk is lacking in C?

2. Tables 2 and 4 would be better to substitute for figure panels, similar to fig. 1. Important is to start with the non-zero difference in the parameters at zero time. If I understood correct, those are given in Table 1.

3. Please, pay attention to the biphasic curves in Fig. 1 upon prolonged ornithine supplementation. That is, Fig 1 shows a trend of increasing the cortisol levels and ratios after initial decreases. Why there is a trend of increasing DHEA-S and initial drop of cortisol in the control group? Graphical presentation of the results of the Tables shall enable to better correlate these trends.

• Minor Essential Revisions

1. Please, discuss the introduced dose with those which may be present in the ornithine-rich food.

2. Lines 112-113 - Check mg of ornithine - it is different from that in line 166 - and the added mg of cellulose. Is it necessary to repeat the information in lines 112-113 and 166-167?

3. Line 153. Do you mean “… full time jobs which did not involve shift work, physically”? Correct.

4. Please decipher all abbreviations, including HPA, CHR (line 227) etc.


The author can be trusted to make these. For example, missing labels on figures, the wrong use of a term, spelling mistakes.

• Discretionary Revisions

1. What is the metabolic connection between GABA and ornithine?

2. You may consider doing functional approximations of the time-dependences (e.g., in Fig.1, or of the time dependence presented in Table 2). The difference in the approximation function/parameters strengthens significance of the differences, even if separate points do not give statistically significant results.
3 You may consider to reduce the title. The running title without technical details sounds more effective

**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