Reviewer’s report

Title: Antioxidant Activity of Selenium-enriched Chrysomyia megacephala (Fabricius) Larvae Powder and Its Impact on Intestinal Microflora in D-Galactose Induced Aging Mice

Version: 1 Date: 05 Jun 2020

Reviewer's report:

In their study, the authors evaluated the antioxidative activity of selenium-enrich Chrysomya Megacephala (Fabricius) larvae powder (SCML) and its impact on the diversity and structure of intestinal microflora in vivo, using a mouse model of D-galactose (D-gal)-induced oxidative damage. The main topic of the manuscript is interesting and the authors have deeply investigated it; nevertheless there are some observations that need to be addressed.

1. The Introduction section should be revised. I suggest to summarize this paragraph.

2. Some indications should be given about the rationale of using the SCML selected doses. Please, state references.

3. To better understand the statistical analysis used in the Figures, the authors should briefly specify in the legends the inter-groups comparison and report the significance of each a, b and c letter. Bars labeled with different letters are confusing and difficult to read. As consequence, the manuscript should be revised in the result section.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.
I recommend additional statistical review

**Quality of written English**
Please indicate the quality of language in the manuscript:

Acceptable

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