Reviewer’s report

Title: Anti-inflammatory, analgesic and acute toxicity effects of fermented soybean

Version: 0 Date: 20 Sep 2019

Reviewer: Silvio Sosa

Reviewer's report:

The manuscript reports the results of an in vitro and in vivo study on anti-inflammatory, analgesic and acute toxicity of a fermented soybean preparation. The manuscript is of interest although the effects are weak, but it needs major revisions before its publication, including an improvement from a linguistic point of view. Specific comments are reported below.

Abstract

Methods: This part does not report any indication on the methods.

Results: Results should be re-written reporting the quantitative evaluation of the effects, including the effect of reference drugs/compounds.

Methods

Materials and methods should more clearly organized (for instance, reporting first materials, then in vitro studies followed by in vivo studies) and described, reporting also the solvents used to dissolve the administered substances.

Results

Lines 209-2014: Authors evaluated SBE and NESTE effect on NO production by LPS-stimulated macrophages only at two concentrations, which can not allow to estimate a concentration-dependent effect. Moreover, the effect had to be compared to a reference compound.

Lines 225-229: The effect of more than two doses of the testing substances had to be evaluated. Edema reduction (%) should be reported also in the text.

Lines 232-238: As previously reported, no dose-effect can be observed from the obtained results.
Figure 2. The results should be reported in the same manner for all the three parameters (NO production is reported as % inhibition, whereas the cytokines are reported as levels in the culture medium).

Table 1: Results should be reported both as edema (mean ± SE) and % edema inhibition.

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

No

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

No

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

No

**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.

Not relevant to this manuscript

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

Not suitable for publication unless extensively edited
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