Reviewer’s report

Title: Nongenotoxic effects and a reduction of the DOX induced genotoxic effects of Helianthus annuus Linne (sunflower) seeds revealed by micronucleus assays in mouse bone marrow

Version: 1 Date: 27 November 2013

Reviewer: Ricardo Furtado

Reviewer’s report:

Major Compulsory Revisions

1 Number of pages

The paper is too large for the amount of data.

No need to write about micronucleus assay. This assay is well established

About DOX. Just use the mechanisms associated with their activity. It is a well known chemotherapeutic.

No need to describe how animals are identified.

No need to describe the criteria used by the ethics committee, just say it was approved and the number.

The number of references should be reduced to around 30. The reference 29 is missing the number of pages and when a searched I saw that the year of publication was wrong. All references must be checked in detail.

Figure 1 is unnecessary. Just describe better experimental groups. The figure may come as supplementary material.

Tables 2

Tables should be in the body of the text and not as supplementary material.

Tables should be smaller. How to:

Treatment PCE/1000 PCE/PCE+NCE
24h 48h
i.e. the total of PCE is in methods

3 Methods

You must inform the supplier of DOX and NEU, as done for H. annus

Better describe the process of obtaining THALS
Why were used the doses of 250 to 2000 mg / kg to genotoxicity and only the
dose of 2000 to antigenotoxicity? The best is to use the same for both tests.
However it is still acceptable to use only 2000 to genotoxicity and three doses for
antigenotoxicity.

Becomes easier to compare the data of MN when data are for 1000.

Why the analysis of cytotoxicity was with PCE / NCE, when is recommended
PCE / NCE + PCE in:
OECD: Mammalian Erythrocyte Micronucleus Test. OECD Guideline for the
Testing of Chemicals. 1997c:474.;

Hayashi, 2000, In vivo rodent micronucleus assay: protocol, conduct and data
interpretation;
Ribeiro LR, Marques EK, Salvadori DMF: Teste de micronúcleo em medula
óssea de
The statistical analysis must be redone with the new values.

**Level of interest:** An article of importance in its field

**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