

Review of: "Targeting Alzheimer's disease hallmarks with the Nrf2 activator Isoeugenol"

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Potential competing interests: No potential competing interests to declare.

Manuscript entitled "Targeting Alzheimer's disease hallmarks with the Nrf2 activator Isoeugenol" is about studying the effect of Isoeugenol as an activator for Nrf2 through many important experiments. However, for this article to be valid for publication, some modifications should be carried out.

1. The Latin terms (*in vivo* and *in vitro*) should be in italic font. These terms are repeated many times in the article without changing the font.
2. In the abstract, in the part of results, results should be in numbers.
3. In the introduction, the first line has a missing preposition "of" after the word "one."
4. In the introduction, the last paragraph, it talks about results. I need to know whether these results are attributed to the last results or the results of this study. Because the results shouldn't be included in the introduction part.
5. In the materials, state the full specifications of the used materials, such as molecular weight, assay.....etc.
6. In the methods and results, the titles and subtitles should be consistent with each other.
7. Title 2.2.1. in the last line ($\text{cm}^{\text{s}^{-1}}$), -1 should be superscript.
8. The authors talk about the selected concentration (250 μM). Is this concentration achieved by injecting the mice (100 mg/kg)? And in other parts, it is written (50 mg/kg).
9. Title 2.2.10. state the specifications of the spectrophotometer, such as model, company, and country.
10. Page 13, I think in the last line, it is wrong to put (to two presentations).
11. In the results, title 3.1., the full specifications of the artificial membrane should be mentioned, such as the materials, pore size.... etc.
12. IC_{50} , is it enough to confirm the cytotoxicity? MTT assay. It is better to reach the best results.
13. The expression with the pronoun "we" to explain the results isn't professional. The passive form is preferable.
14. The abbreviation "LPS" what does it refer to?
15. Fig. 6. It is preferable to show the scale bar or date on the X-axis.
16. Fig. 8. Maybe the authors can arrange it in a better form. I suggest the 9 charts should be divided into 3 charts in every row.
17. The symbol (%) is often written after numbers. I think the authors should replace the symbol (%) with the word (percentage).
18. Fig. 9. Is the studying time till 180 min enough to reveal the effect of the intranasal administration of Isoeugenol?

19. In the *in vivo* experiment, why do the authors use male and female mice? Is the sex of the mice expected to have an effect?
20. Fig. 11. Fig. or Figure, please homogenize.
21. After Fig. 11., in the last paragraph, there is a mistyping (Fig. 10) which should be Fig. 11. The same error is repeated after Fig. 12.
22. The number of Fig. 12. is repeated for 2 figures.
23. (10 B and 10 E), (12A and B), please homogenize.
24. The caption of Fig. 12. I think there is a mistyping in (five to six to eight).
25. The titles (3.11., 3.12, and 3.13) shouldn't have verbs (shouldn't be in declarative form). I suggest the titles are taken from the first line under each title, such as: 3.11. The effect of Iso on pain sensitivity and on locomotor activity.
26. The conclusion, is Isoeugenol an activator for Nrf2 or a preclinic of AD or both?
27. Please homogenize the references; some references include year only, and the others include year/month/day.