

## 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.

Dear authors,

The present paper is exciting although some suggestions should be considered.

There are many findings but some experimental models are not well planned. Why is in the "in vitro" model the treatment time different by the analyzed parameters (gene expression and protein levels of phosphorylation)?.

Likewise, why in the "in vivo" model the authors use different animal genders, females for young models and males for adults?. The authors must justify why they treated to animals for one month.

The statistical analysis has to be reviewed in all figures for example in Figure 2 the bars diagram seems to indicate a significant difference between N2aAPPswe+Iso and N2a-wt groups.

The pictures from Western blotting can not be cut. A complete film with all experimental groups must be shown.

These point must be clarified.

Minor comments:

To Unify nomenclature of isoeugenol in work (Iso or Isoeugenol)

In vitro and in vivo model must be always between quotation marks

In introduction section, the role of Heme oxygenase must be explained. And the last paragraph should be more general and not explain detaily the results.