

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.

The manuscript written by Silva and coworkers focus on determining the therapeutic role of Isoeugenol in an *invivo* and *invitro* AD model. The research group has focused on curbing amyloid beta formation in the brain of transgenic AD mice. Although the research group has provided ample evidence of beneficial effect of Isoeugenol, this paper has some lacunas

1. The impact of the Iso on the binding of Nrf2 to its promoter region (DNA-Protein interaction) could have been studied by employing EMSA, this would have provided additional evidence regarding its mechanism of action.
2. Although neuroinflammation and oxidative stress are involved in the progression of AD, the author has not attempted to study the impact of iso on tau hyperphosphorylation in using Tau mouse model or at least shown that in an *invitro* model.
3. To see the broader spectrum of the beneficial effects of Iso, the author should have done a proteomic study, and using western blot to verify the former.
4. The author should consider to study the present research to be seen through the prism of epigenetics