Qeios

Peer Review

Review of: "In Silico Toxicity Assessment of Organophosphates: A DFT and Molecular Docking Study on Their Interaction with Human Serum Albumin (HSA)"

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The interaction of organophosphate (OP) insecticides with human serum albumin (HSA) is of significant interest. The authors have effectively described how these interactions occur, providing valuable insights into the mechanisms involved and clearly highlighting the patterns of OP insecticide behavior toward this biological target.

However, one area for improvement would be the inclusion of non-insecticide/pesticide OPs that are pervasive in the environment, such as triphenyl phosphate and tricresyl phosphate. A comparative analysis or benchmark between these two classes (pesticidal and non-pesticidal OPs) would greatly enhance the relevance and applicability of this study. I encourage the authors to consider complementing their work in this manner.

Regarding specific observations, the introduction includes a lengthy discussion of the neurotoxic issues and effects of OPs. As this is not the primary focus of the article, I recommend shortening and summarizing this section. Since these effects are well-documented, a concise overview would suffice and keep the reader's attention on the study's core contributions.

Declarations

Potential competing interests: No potential competing interests to declare.

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