

Reviewer Comment:

I opened the word document, I must say that the manuscript is not still in good condition. I suggest you not to accept it for publication.

I also doubt that text has been read and checked by the native speaker as there are still several awkward expressions like sentences: "Reflux reaction mixtures for about 24 h." instead of "Reaction mixture was refluxed for 24h." or "7-Azaindole is an effective drug against nervous central system and shown affinity for serotonin receptor" such statement also does not make sense at all. Authors also mentioned that interaction constants were rounded to one decimal, however, there are still two decimals.

Probably most importantly, authors should study mechanism of action of physostigmine AChE inhibition and then can make comparative study since physostigmine is pseudoirreversible AChE inhibitor capable of carbamylation of AChE active site. 7-Azaindole derivatives do not contain carbamyl moiety so comparison of binding mode as well as comparison in vitro study could not be done for this reason.

Author's Feedback:

Please find enclosed the reply to queries raised by reviewer for manuscript no **2014_IJBcRR_9721**

Text has been read and checked by the native speaker

Q.1.

"Reflux reaction mixtures for about 24 h." instead of "Reaction mixture was refluxed for 24h." or "7-Azaindole is an effective drug against nervous central system and shown affinity for serotonin receptor" such statement also does not make sense at all.

A

"Reflux reaction mixtures for about 24 h" has been replaced by "Reaction mixture was refluxed for 24h".

This statement "7-Azaindole is an effective drug against nervous central system and shown affinity for serotonin receptor" has been replaced by "7-Azaindole derivative is an effective drug against nervous central system and shown affinity for serotonin receptor" [19-21]. And it has been published in the following published papers.

19]. Palachowska, M. H., Deren-Wesolek, A., Mokrosz, J. L., Charakchieva-Minol, S.,

Chojacka-Wojcik, E. Arch. Pharm. (Weinheim) 1996, 329, 451.

20] Jean-Yves M., and Benoît J., Synthesis and reactivity of 7-Azaindoles (1H-Pyrrolo[2,3-b]pyridine), *Current Organic Chemistry*, 5, 471-506 (2001).

Q.2/

Authors also mentioned that interaction constants were rounded to one decimal, however, there are still two decimals.

A

Actually one reviewer wanted the following correction I mean upto two decimals So I wrote the interaction constants rounded to two decimals.

First reviewer):Authors should unify the table in order to round all the values to valid decimals (i.e. 0.98 ± 0.052 is not the same as 8.51 ± 0.02).

Q.3.

Probably most importantly, authors should study mechanism of action of physostigmine AChE inhibition and then can make comparative study since physostigmine is pseudoirreversible AChE inhibitor capable of carbamylation of AChE active site. 7-Azaindole derivatives do not contain carbamyl moiety so comparison of binding mode as well as

A.

Definitely mechanism of action of Azaindole AChE inhibition will be different from Physostigmine AChE inhibition. We just want to explain the resemblance of Azaindole derivatives for possible three major binding areas like ionic, esteratic and possible hydrophobic region related to Physostigmine and not the presence of carbamyl moiety. Physostigmine and synthesized compounds showed the presence of same common essential features necessary for binding. The results provide further support for the proposal that Physostigmine and Azaindole derivatives bind to different sites on the enzyme, despite their structural resemblance. As reviewer said already that we can see there only marginal similarity based on the structural features.