

PEER-REVIEW REPORT 1

Name of journal: Neural Regeneration Research

Manuscript NO: NRR-D-18-00410

Title: Apomorphine effects on hippocampus

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Reviewer's country: Uruguay

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COMMENTS TO AUTHORS

The manuscript is an interesting short review on apomorphine effects on the hippocampus, reporting both historical information as well as recent experimental data.

I only have minor suggestions:

- Page 2, line 8-12: I suggest to specify the animal species used in Ungersstedt experiments (rat);
- Page 2, line 15-18: The sentence is not really clear to me. It could be changed to: "In addition, several reports have shown that apomorphine does not act specifically but as a non-specific dopamine receptor agonist, activating not only pre- but also post-synaptic dopaminergic receptors".
- Page 2, line 23: If you could specify: Islands of Calleja (a mainly limbic region). It could be better to just say "a limbic region" or "considered part of the limbic system".
- Page 3, line 1: "...receptors found at high levels in the caudate putamen and not reported in...". I suggest to insert "but" in place of the "and".
- Page 3, line 2: At the beginning of the sentence I should write "Nowadays" or "At present".
- Page 3, line 7: Rewrite the sentence, I suggest: "Other well-documented apomorphine effects are...".
- Page 3, line 19: The reference Georgiev et al., 2017 is missing from the References section.

I suppose it is the following:

Acta Neurol Scand. 2017 Dec;136(6):570-584. Gender differences in Parkinson's disease: A clinical perspective. Georgiev D, Hamberg K, Hariz M, Forsgren L, Hariz GM.

- Page 4, line 17-on: I suggest to insert the reference where the reader can find the data from your same group, I suppose it is the following:

Mol Neurobiol. 2018 Mar 26. The Effects of Non-selective Dopamine Receptor Activation by Apomorphine in the Mouse Hippocampus. Arroyo-García LE, Vázquez-Roque RA, Díaz A, Treviño S, De La Cruz F, Flores G, Rodríguez-Moreno A.

- The resolution of the image I can access is not the best (it is not easy to distinguish if the arrows indicate up or down regulation). If it could be possible to improve it...