# Review of: "Impending role of hippocampal neurogenesis in the development of chronic epilepsy following seizures after Kainic acid and Pentylenetetrazol treatment"

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Potential competing interests: No potential competing interests to declare.

The manuscript entitled "Impending role of hippocampal neurogenesis in the development of chronic epilepsy following seizures after Kainic acid and Pentylenetetrazol treatment" appears to address neurodegeneration, cell proliferation, and additional aspects of hippocampal changes that occur in two models of epilepsy and at 2 time points. While the discussion is relatively well thought out, significant improvements can be made to render the manuscript easier to follow. I would suggest a different title to better describe the questions that were actually addressed in the paper.

1. Introduction should explain the need for the experiments that were performed. For instance, if the paper is titled "Impending role of hippocampal neurogenesis in the development of chronic epilepsy…", why is it important to examine neurodegeneration, as this seems like a separate question that is minimally related to neurogenesis. The reason is because the degeneration assays are not specific to the degeneration of adult-born neurons.
2. A rationale for examining GABA, nitrergic cells, BDNF, and NGF was not provided until the discussion. This should be emphasized more clearly in the introduction, because it is not obvious why one would choose to do those experiments given the title of the manuscript.
3. The methods section is incomplete. It needs to include how the TUNEL, Fluorojade B, and Nissl stains were done (section thickness, protocols, etc.).
4. Furthermore, there is absolutely no information about the BrdU injection protocol and the way the investigators visualized the BrdU+ cells. This may help readers understand how there is ectopic expression after 24 hours.
5. All of the details regarding every immunostaining procedure and western blots must be provided in the methods section.
6. Once again, given the title of the manuscript, why is it important to quantify BrdU/GFAP expression? I do believe it is a great experiment to do, but I would suggest changing the title to better reflect the experiments that were done and the questions that were actually asked.
7. The Figure 1, 5, and 7 have no quantification so the interpretation is unclear.
8. No p-values were provided.
9. Figures should show scatterplots along with the bar graphs so that readers can see the individual data points. This is required in many journals.