

## Round 1

Dear WJSC editor and reviewers,

We appreciate the effort and scientific comments raised by editors and reviewers for our manuscript. Based on these comments, we have thoroughly edited our manuscript. The below is point to point response.

### Reviewer #1:

The authors report their investigations on the in vitro effects of AlCl<sub>3</sub> on adult neural stem cells harvested from the hippocampus. They find that while AlCl<sub>3</sub> does not affect proliferation, it does reduce neuronal differentiation in favor of glial differentiation and alters DNA methylation and methyl transferase functions. These results provide some insights into how AlCl<sub>3</sub> functions as a neurotoxin. The authors claim that their study shows how AlCl<sub>3</sub> regulates adult neurogenesis is a bit strong, as they provide no in vivo data showing the same mechanism. They also do not show that the in vitro doses of AlCl<sub>3</sub> to which the neural stem cells were exposed are achievable in vivo. The manuscript could be improved by addressing these limitations in the discussion.

\*\* thanks for the general positive comments of the reviewer. We have discussed these parts in the revised manuscript.

Also, the authors use the term "treatment" throughout the manuscript in regards to the exposure of adult neural stem cells to AlCl<sub>3</sub>. Treatment implies therapy, but a therapeutic response is not intended. "Exposure" or "application" would probable be connotatively accurate.

\*\* we have modified in the revised manuscript.

The authors should also provide some background for the doses of AlCl<sub>3</sub> they selected to study.

\*\* we have added in the introduction part of revised manuscript.

**Science Editor:** 1 Scientific quality: The manuscript describes a basic study of the ALC13 regulates neuronal development through modulating DNA modification. The topic is within the scope of the WJSC. (1) Classification: Grade B; (2) Summary of the Peer-Review Report: The research results provide some insights into how ALC13 functions as a neurotoxin. Essential clinical, morphological, and immunohistochemical data were given. However, the authors should also provide some background for the doses of ALC13 they selected to study; (3) Format: There are 4 figures. A total of 39 references are cited, including 8 references published in the last 3 years. There are no self-citations.

\*\* we have modified in the revised manuscript.

2 Language evaluation: Classification: Grade C. The language editing certificate was not provided.

\*\* we have asked one native speaker to edit our manuscript. The editing certificate was provided.

3 Academic norms and rules: The authors provided the Biostatistics Review Certificate, the signed Conflict-of-Interest Disclosure Form and Copyright License Agreement. The Institutional Review Board Approval Form and the ARRIVE Guidelines are not right. No academic misconduct was found in the CrossCheck detection and Bing search.

4 Supplementary comments: This is an invited manuscript. The study was supported by 4 grants. The topic has not previously been published in the WJSC.

5 Issues raised: (1) The language classification is Grade C. Please visit the following website for the professional English language editing companies we recommend: <https://www.wjgnet.com/bpg/gerinfo/240>; (2) The authors did not provide the approved grant application form(s). Please upload the approved grant application form(s) or funding agency copy of any approval document(s);

\*\* we have provided along the resubmission.

(3) The authors did not provide original pictures. Please provide the original figure documents. Please prepare and arrange the figures using PowerPoint to ensure that all graphs or arrows or text portions can be reprocessed by the editor;

\*\* we have prepared the figures using PPT.

(4) PMID and DOI numbers are missing in the reference list. Please provide the PubMed numbers and DOI citation numbers to the reference list and list all authors of the references. Please revise throughout;

\*\* we have revised the manuscript following this rule.

(5) The "Article Highlights" section is missing. Please add the "Article Highlights" section at the end of the main text.

\*\* we have added it in the revised manuscript.

6 Re-Review: Required. 7 Recommendation: Conditional acceptance.

## Round 1

Q: The authors have addressed many of the reviewers' comments. Justification of the doses of  $\text{AlCl}_3$  used in vitro is still not clearly stated, however.

A: We thank reviewer's comments. We have added one section for  $\text{AlCl}_3$  exposure in the methods part.