

PEER-REVIEW REPORT

Name of journal: World Journal of Stem Cells

Manuscript NO: 53338

Title: AlCl₃ exposure regulates neuronal development through modulating DNA modification

Reviewer's code: 02589119

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: United States

Author's Country/Territory: China

Manuscript submission date: 2020-03-28

Reviewer chosen by: Ya-Juan Ma

Reviewer accepted review: 2020-06-20 16:28

Reviewer performed review: 2020-06-20 20:07

Review time: 3 Hours

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input type="checkbox"/> Grade B: Minor language polishing <input checked="" type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Re-review	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Peer-reviewer statements	Peer-Review: <input type="checkbox"/> Anonymous <input checked="" type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No



**Baishideng
Publishing
Group**

7041 Koll Center Parkway, Suite
160, Pleasanton, CA 94566, USA
Telephone: +1-925-399-1568
E-mail: bpgoffice@wjgnet.com
https://www.wjgnet.com

SPECIFIC COMMENTS TO AUTHORS

The authors report their investigations on the in vitro effects of AlCl₃ on adult neural stem cells harvested from the hippocampus. They find that while AlCl₃ 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 AlCl₃ functions as a neurotoxin. The authors claim that their study shows how AlCl₃ 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 AlCl₃ to which the neural stem cells were exposed are achievable in vivo. The manuscript could be improved by addressing these limitations in the discussion. Also, the authors use the term "treatment" throughout the manuscript in regards to the exposure of adult neural stem cells to AlCl₃. Treatment implies therapy, but a therapeutic response is not intended. "Exposure" or "application" would probable be connotatively accurate. The authors should also provide some background for the doses of AlCl₃ they selected to study.

RE-REVIEW REPORT OF REVISED MANUSCRIPT

Name of journal: World Journal of Stem Cells

Manuscript NO: 53338

Title: AlCl₃ exposure regulates neuronal development through modulating DNA modification

Reviewer's code: 02589119

Position: Peer Reviewer

Academic degree: MD

Professional title: Doctor

Reviewer's Country/Territory: United States

Author's Country/Territory: China

Manuscript submission date: 2020-03-28

Reviewer chosen by: Le Zhang

Reviewer accepted review: 2020-07-15 11:32

Reviewer performed review: 2020-07-15 11:43

Review time: 1 Hour

Scientific quality	<input type="checkbox"/> Grade A: Excellent <input checked="" type="checkbox"/> Grade B: Very good <input type="checkbox"/> Grade C: Good <input type="checkbox"/> Grade D: Fair <input type="checkbox"/> Grade E: Do not publish
Language quality	<input type="checkbox"/> Grade A: Priority publishing <input checked="" type="checkbox"/> Grade B: Minor language polishing <input type="checkbox"/> Grade C: A great deal of language polishing <input type="checkbox"/> Grade D: Rejection
Conclusion	<input type="checkbox"/> Accept (High priority) <input type="checkbox"/> Accept (General priority) <input checked="" type="checkbox"/> Minor revision <input type="checkbox"/> Major revision <input type="checkbox"/> Rejection
Peer-reviewer statements	Peer-Review: <input checked="" type="checkbox"/> Anonymous <input type="checkbox"/> Onymous Conflicts-of-Interest: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

SPECIFIC COMMENTS TO AUTHORS

The authors have addressed many of the reviewers' comments. Justification of the doses of AlCl₃ used in vitro is still not clearly stated, however.