Reviewer's report

Title: A new anti-glioma therapy, AG119: Pre-clinical assessment in a mouse GL261 glioma model

Version: 2 Date: 26 February 2015

Reviewer: Xinli Liu

Reviewer's report:

Recommendation: Accept after minor discretionary revisions.

This manuscript by Towner et al. described a preclinical study that a novel anti-angiogenic and anti-mitotic agent AG119 can increase survival and decrease perfusion rates in mouse GL261 glioma model. The data presented largely support the conclusion.

Major concerns:
1. Methods section: the vehicle for dissolving AG119 should be provided.
2. Figure 2A, which day did the tumor volume data generate from? Can the tumor volume data be presented as a function of treatment/implantation days? Figure 2A shows AG119 had smaller tumor size than TMZ treated ones, which did not correlate with the animal survival data presented in Figure 1 (TMZ treated mice live longer), any explanation for that?
3. Figure 2Ei, 2Eii, and 2Eiii represent TMZ-treated mice at 29-31 days, are those images acquired from the same mouse? Why 2Eii (day 30) has smaller tumor size than 2Ei (day 29) and 2Eiii (day 31)?
4. Figure 2Fi and 2Fii represent AG119-treated mice at 28-29 days, what about 2Fiii? No description in the figure legend.
5. Figure 3 Ci/Cii vs. Figure 3Di/Dii: will tumor size affect the measurement of perfusion?

Minor concerns:
1. Line 130, the MDA-MB-435 cells were not true breast cancer cell line, they were found to be melanoma cell lines (Ellison G, Klinowska T, Westwood RF, Docter E, French T, Fox JC. Further evidence to support the melanocytic origin of MDA-MB-435. Mol Pathol. 2002 Oct;55(5):294-9.).

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

I have no competing interests