Reviewer's report

Title: Intrathecal injection of fluorocitric acid inhibits the activation of glial cells causing reduced mirror pain in rats

Version: 4 Date: 31 October 2014

Reviewer: Cesar Carcamo

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Major Compulsory Revisions
1. Is the question posed by the authors well defined? Yes, authors hypothesized that SGC activation in the spinal cord following unilateral peripheral nerve injury leads to increased excitability of contralateral DRG neurons and thus, mirror pain.

2. Are the methods appropriate and well described? Yes

3. Are the data sound? Yes

4. Do the figures appear to be genuine, i.e. without evidence of manipulation? Yes

5. Does the manuscript adhere to the relevant standards for reporting and data deposition? Yes

6. Are the discussion and conclusions well balanced and adequately supported by the data? No, authors discuss about contralateral SGC activation after SNL and they state that increased Nav1.7 expression in contralateral SGC explains MIP. That is not the finding, what only has been found is that Fluorocitrate can inhibit the activation of glial cells in spinal cord and DRG, and reduce MIP, a finding previously shown (Cheng, C. F., Cheng, J. K., Chen, C. Y., Lien, C. C., Chu, D., Wang, S. Y., & Tsaur, M. L. (2014). Mirror-image pain is mediated by nerve growth factor produced from tumor necrosis factor alpha-activated satellite glia after peripheral nerve injury. PAIN®, 155(5), 906-920). Increased Nav1.7 expression in contralateral SGC may be an epiphenomenon associated to nerve growth factor (NGF) which is produced from tumor necrosis factor alpha-activated satellite glia after peripheral nerve injury.

7. Are limitations of the work clearly stated? No

8. Do the authors clearly acknowledge any work upon which they are building, both published and unpublished? No

9. Do the title and abstract accurately convey what has been found? Yes, authors state that “Fluorocitrate can inhibit the activation of glial cells in spinal cord and DRG, and reduce MIP”.

10. Is the writing acceptable? Writing needs corrections, i.e.

It says: Unilateral SNL rats exhibited noticeable bilateral pain. Compared with the sham group.
It must say: Compared with the sham group, unilateral SNL rats exhibited noticeable bilateral pain

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

**Quality of written English:** Not suitable for publication unless extensively edited

**Statistical review:** No, the manuscript does not need to be seen by a statistician.