OPEN PEER REVIEW REPORT 1

Name of journal: Neural Regeneration Research
Manuscript NO: NRR-D-20-01000
Title: circPrkcsh/miR-488/Ccl2 Axis Regulates Inflammatory Responses After Spinal Cord Injury
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COMMENTS TO AUTHORS

The authors studied the expression of circRNA in response to SCI in C57BL/6 mice. As discussed in the manuscript circRNA has potential implication in SCI and studies on its effects are lacking. They found circPrksh was upregulated, Ccl-2 was upregulated after SCI and miR-488 was significantly decreased. They identified a high binding score between these molecules, implicating their relationship. They found the role of circPrksh by down regulating it or up regulating it in vitro and stimulating in intracellular inflammatory response via TNF-alpha deliverance. circPrksh upregulates pro-inflammatory cytokines and it does so by binding miR-488. This results in increased ccl-2 expression.

Overall, this manuscript is well written. However, the abstract and title leads to the reader to believe inflammation studies were done in vivo. They should mention the effect of circPrksh on inflammation was studied in vitro model. Moreover, i do not believe you can conclude the effect circRNA has on inflammation bc it is a dynamic process that requires in vivo model. Your title also mentions in decreases inflammation in sci, yet your model of SCI was delivering TNF-alpha in vitro to astrocytes. You can say it increases expression of pro-inflammatory cytokines. Whether this molecule has potential clinical use is still to be determined. Also, the title has too many acronyms, I would just leave circPrksh, also you cannot say this pathway reduces inflammation in SCI since you did not look at inflammation in the sci as you upregulated or down regulated circprksh. Please address these issues with response/revision or even new experiments.