

OPEN PEER REVIEW REPORT 3

Name of journal: Neural Regeneration Research

Manuscript NO: NRR-D-19-00111

Title: From cortex to cord: motor circuit plasticity after spinal cord injury

Reviewer's Name: Albert A. Rizvanov

Reviewer's country: Russia

Date sent for review: 2019-03-09

Date reviewed: 2019-03-22

Review time: 13 days

COMMENTS TO AUTHORS

The manuscript is well written and provides an overview of the literature in the field, in addition to important new information summarizing the latest findings about the topic.

At the same time, there is more evidence in the literature about motor circuit plasticity after spinal cord injury and their stimulation approaches that authors should be mention (pubmed 108 articles).

The authors should provide an additional paragraph with an in depth discussion about molecular and cellular mechanism of motor cortex plasticity. The authors say a lot about cortical plasticity, but do not reveal the available data on the reorganization of the cortex in details (structural and synaptic sites of plasticity including) (PMID: 28918262, PMID: 27939980, PMID: 26846379).

The authors write that plasticity can be promoted by a variety of training, molecular, or pharmacological stimulation approaches. But unfortunately, the authors do not talk about approaches of regenerative medicine such as cell therapy, which is widely used to restore motor function by stimulation of motor circuit plasticity (PMID: 30531002, PMID: 28421147, PMID: 29692732).