Reviewer’s report

Title: Fasudil improves survival and promotes skeletal muscle development in a mouse model of spinal muscular atrophy

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Reviewer: Sibylle Jablonka

Reviewer’s report:

Bowerman et al., described in a very clear and well written way the effects of the ROCK inhibitor Fasudil on a SMA mouse model. Fasudil via increasing the lifespan, did not effect motoneuron survival per se, but results in a significant increase in muscle fiber and post synaptic endplate size, and restores normal expression of myogenin. Therefore the study addresses a very important question whether muscles are separately (cell autonomously) affected due to SMN deficiency.

Thus, Fasudil as a clinical approved ROCK inhibitor can be discussed as a therapeutic strategy in terms of SMA and may be other motoneuron diseases.

The experiments are properly done and very convincing. The results are strongly discussed. There are no minor or major points which need to be addressed.

Quality of written English: Acceptable

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

Declaration of competing interests:

I declare that I have no competing interests.