

## OPEN PEER REVIEW REPORT 1

**Name of journal:** Neural Regeneration Research

**Manuscript NO:** NRR-D-19-00302

**Title:** An early neuroprotective effect of atorvastatin involves activation of the autophagy pathway in an experimental rat model of subarachnoid hemorrhage

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**Reviewer's country:** France

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### COMMENTS TO AUTHORS

A simple remark for beginning, please correct rat in your abstract instead of MICE : "apoptosis was inhibited, and early brain injury (EBI) was ameliorated in these mice"

A good work using animal testing is not obvious but you did it.

I am not really agree with "but the mechanism of this effect remains incompletely understood" Some studies had shown enhanced angiogenesis and inhibition of pro inflammatory mediators (prostaglandins and leukotriene pathway inhibition) and controversial mechanisms about caspases (but your work brings some good data about it) - It will be a pleasure to see in your references some studies like that of Lu et al 2004 J Neurotrauma, Morandi et al 2011 Chest. and Wible 2010 Neurotherapeutics who worked with Human and with animal testing (rat) for brain injury even if they do not specially worked in an early brain injury model but in Traumatic brain injury

Does this study aim to encourage clinical management to add Atorvastatin to the treatment ? If the answer is yes - Do patients will be able to eat atorvastatin in a solid form when they are in EBI+SAH? These questions lead to an important point for me - Why do you choose gastric gavage ? (I know its weak solubility in water so very hard to realize IV or IP)