

## **OPEN PEER REVIEW REPORT 1**

Name of journal: Neural Regeneration Research Manuscript NO: NRR-D-20-00137 Title: Cognitive impairment in multiple sclerosis: lessons from CSF biomarkers Reviewer's Name: Tetsuya Akaishi Reviewer's country: Japan Date sent for review: 2020-2-26

## COMMENTS TO AUTHORS

The manuscript is handling a very difficult but very important topic, and it is well written. I have only a few minor comments.

[Minor comments] Page 7 "(Akgün et al. 2019; Piehl et al. 2017; Sejbaek et al. 2019)."

I think that "+" is unnecessary.

Page 10 "In AD and PD, extracellular amyloid pathology can be considered a driver for neurodegenerative processes, namely tauopathy and synucleinopathy (Jellinger 2008)."

As you know, neurofibrillary tangles and Lewy bodies are intracellular abnormal structures. Also, as you know, amyloid protein and tau or synuclein are totally different molecules, although they interact each other. Thus, I recommend the authors to rewrite this sentence with more understandable description.

Page 11: Please spell out "IgG" in its first appearance.

Page 11 "The presence of CSF OCBs may support the diagnosis of MS, while their absence may prompt neurologists to consider alternative diagnoses vs MS (Thompson et al. 2017)."

As you know, the absence of OCBs in the CSF do not deny the diagnosis of MS. Thus, another expression, such as "The presence of CSF OCBs may support the diagnosis of MS, while their absence does not necessarily deny the diagnosis of MS" or something like that, might be better. Besides, "diagnosis vs MS" seems to be needed to be rewritten for better readability.

Page 12: "During MS," might be rewritten with more proper phrases.

Page 13: Please spell out "Ig" in its first appearance.