Reviewer’s report

Title: Proteinase-activated receptor 2 and disease biomarkers in cerebrospinal fluid in cases with autopsy-confirmed prion diseases and other neurodegenerative diseases.

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Reviewer: Hanna Rosenmann

Reviewer’s report:

1. In abstract, Results: "We did not find any significant difference between levels of PAR-2 and other biomarkers". This sentence may point that PAR is similar to tau biomarker - which is not the case. The authors may mean that no difference was detected between CJD and non-CJD.

2. The table is not clear (SD values are usually not presented this way). Significant p values should be presented.

3. Comparing CJD to non-CJD is not so relevant for amyloid and p-tau levels (while it may make sense for t-tau only). Dividing the non-CJD cases to subgroups of AD etc. (although small groups) is needed. Indeed the raw data is presented in supplement but should be summarized in results.

4. Actually, the main conclusion is that PAR cannot serve as marker in the order to tau, where very high and significant difference exists between CJD and non-CJD.

5. That the tau has higher specificity than 14-3-3 has been also published by Miner et al. J Neurol 2011.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.