

## OPEN PEER REVIEW REPORT 1

**Name of journal:** Neural Regeneration Research

**Manuscript NO:** NRR-D-22-00481

**Title:** Alzheimer's disease with sleep insufficiency: correlations among clinical characteristics, orexinergic system and blood-brain barrier

**Reviewer's Name:** Melinda Barkhuizen

**Reviewer's country:** Netherlands

### COMMENTS TO AUTHORS

I like the combination of orexin and BBB leakiness measurements in combination with the clinical picture. Overall it is an interesting study.

This whole paper is based on sleep disturbances in Alzheimer's disease.

Was the sleep of the patients only measured for 1 night before assigning them to the two groups? If that is the case, could the authors please clarify why sleep was not measured over multiple nights and averaged?

Is 1 night enough to conclude that the Alzheimer patients have sleep impairment? It is possible to have an occasional bad night of sleep in people that overall sleep well.

Were the CSF samples drawn the night after the measurement or at a separate visit on a different date? Could you please address this in the discussion?

Page 9, line 36, radioimmunoassay is misspelt, page 19 line 49 "severer" should be "more severe"  
Line 50 is a bit of a stretch. "Here, AD-SI group had severer anxiety reflected by the score of HAMA scale than AD-SI group, and the difference was close to statistically significant (P=0.081)". The P=0.081 is not close to significant. Change this sentence.