

## OPEN PEER REVIEW REPORT 1

**Name of journal:** Neural Regeneration Research

**Manuscript NO:** NRR-D-20-00146

**Title:** Indispensable CBR1 in Major Depressive Disorder therapy by functionalized solid lipid nanoparticles

**Reviewer's Name:** Qing You

**Reviewer's country:** Germany

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### COMMENTS TO AUTHORS

The author proved the antidepressant effect of Cur/SL Ns-HU 211 nanoparticles through animal model and explored the possible mechanisms. But there are deficiencies below, especially the statistical data for CB1<sup>-/-</sup>, please check and explain.

1. How were the nanoparticles given to animals? By i.v.?
2. How many animals were used in the experiment? For each group, n=?
3. What is the role of dexanabinal loaded in nanoparticles? Is dexanabinal also promising for antidepressant?
4. How much is the loading rate for curcumin and dexanabinol? Please show the basic parameters of the nanoparticles, i.e. size, PDI, potential, etc.....
5. In method part, statistical analysis..... $P < 0.01$ ? Please correct it to 0.05.
6. In Fig.1,  $P < 0.05$  compared with CORT group? It should be compared between CORT and CORT+NPs groups. n=? In E and G, CB1<sup>-/-</sup>, compared between CORT and CORT+NPs, it seems to be significant. Please carefully check your data and explain this.
7. In Fig.2.B, Hippocampus, CB1<sup>-/-</sup>, compared between CORT and CORT+NPs, it should be significant?
8. In Fig.3.E, CB1<sup>-/-</sup>, same problem and more strange for the trend with CORT.
9. For all figures, you show only short title. Please add further explanation.