Author’s response to reviews

Title: Mitogen-stimulated cell proliferation and cytokine production in major depressive disorder patients

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Author’s response to reviews:

Dear Editor,

We appreciate you and the reviewer again for the new advices. I am afraid the explanations in last edition is not clearly enough.

We have answered the questions. We have adjusted some references to illustrate the subject more clearly. We have revised the whole manuscript carefully.

All of the changes were highlighted in the manuscript (by the red font).

Thank you!

Best wishes,

Your sincerely,

Qingtian Li
To Reviewer 1

Gregory Freund (Reviewer 1): Q1: As indicated in the previous review, this work "would be markedly strengthened by presenting data on why depression-associated immune dysregulation occurs". Unfortunately, no new experimentation was included.

R: We didn't get more T or B cell function data in our experiments. In the updated manuscript, we provided some explanation about that. The association between MDD and immune dysregulation can be supported by two kinds of data. One is the inflammatory factors in MDD patients, another is the application of anti-inflammatory drugs used in MDD patients.

Text modified: Line 143-146.

Q2: While searching for diagnostic biomarkers for MDD and other mental illnesses that are minimally invasive is of value, there is no compelling evidence presented that the tests described have the required specificity. Data showing that said tests in some combination demonstrated diagnostic accuracy, would be an important and valuable finding.

R: MDD is not a simple immune or nervous disease. The potential laboratory indicators for diagnosis and monitoring this disorder should be some combination or a "pattern", rather than any parameter itself. In addition to scale assessment, imaging features, blood transcriptome and proteome, brain-gut-axis and intestinal microflora, together with immune and nerve-humoral parameters should be ideal candidates in the coming combination or pattern.

Text modified: Line 218-221.