

Reviewer #1:

**Scientific Quality:** Grade B (Very good)

**Language Quality:** Grade B (Minor language polishing)

**Conclusion:** Minor revision

**Specific Comments to Authors:** In the present study, The authors analyze the mechanistic pathways of identification of the molecular mechanism of acupuncture at back-shu point in treating insomnia. It has been previously shown in other publications that acupuncture at back-shu point has an excellent therapeutic effect on insomnia, effectively improving depression, anxiety, memory loss, immunity decline and other clinical symptoms caused by insomnia. The authors therefore combine and extend the current knowledge about acupuncture in the treatment of insomnia, identifies that acupuncture at back-shu point can inhibit ERK/NF- $\kappa$ B signaling pathway and treat insomnia by increasing the release of inflammatory cytokines in the hippocampus. The authors use many different methods and animal models, the study is well conducted. However, some questions and points remain unanswered: ·The presentation of the data lacked clarity and aesthetics, and the abscissas of many graphs were missing. ·The description of the figure legend should be as detailed as possible to enable readers to have a clear understanding of the results. ·The author can add graphical summaries to make the presentation of the results clearer. I recommend that the manuscript can be published after polishing the English.

**Reply:** Thank you very much for your valuable question. We have incorporated the missing coordinate information and made improvements to the legend description and figure summary based on your suggestion. We believe these changes have made the figure more informative and easier to understand for our readers.

Reviewer #2:

**Scientific Quality:** Grade C (Good)

**Language Quality:** Grade B (Minor language polishing)

**Conclusion:** Minor revision

**Specific Comments to Authors:** The general topic is of relevance, the data appears sound and the manuscript is very well-written. The novelty of this study is identification of the molecular mechanism of acupuncture at back-shu point in treating insomnia. The authors identified a regulatory mechanism that acupuncture at back-shu point can inhibit ERK/NF- $\kappa$ B signaling pathway and treat insomnia by increasing the release of inflammatory cytokines in the hippocampus. However, I have some comments, which should still be addressed: 1. Statistical tests should be indicated for each data set in the Figure legend. 2. The size of the font in the figure notes varies and should be unified. 3. Pictures should be marked with a scale bar.

**Reply:** Thank you very much for your valuable question. We have added clarity to our figure by indicating the statistical tests for each data set, unifying the legend font size, and adding scale bars to the images. These improvements aim to make the figure more accessible and facilitate a better understanding of our results.