**Reviewer's report**

**Title:** Bioinformatics analyses on the immune status of renal transplant patients, a systemic research of renal transplantation

**Version:** 0  **Date:** 12 Aug 2019

**Reviewer:** Yungang He

**Reviewer's report:**

In the article entitled "Bioinformatics analyses on the immune status of renal transplant patients, a systemic research of renal transplantation", Meng M and his colleagues systematically investigated differences of gene expression among different groups of renal transplant recipients by using public data from GEO. This study is well conducted though the results show limited novelty in gene expression of transplant patients.

In chronic rejection group compared with stable recipients, expression differences were enriched in allograft rejection module; in acute rejection patients compared with stable recipients, genes with significant differences were enriched in modules of allograft rejection and immune deficiency. As that was expected, MHC molecules and immunoglobulins were increased in both acute and chronic rejection while expressions of LILRB and MAPK were increased in acute rejection patients but not in stable recipients.

Kidney transplantation is the most effective treatment for end-stage renal disease. This manuscript provided useful information for further exploring the molecular mechanism against transplant rejection.

**Comments:**

1. In the 'Background' section, previous discoveries are not fully addressed, particularly the discoveries from the published GEO data sets.

2. As with the abbreviations, spell out the full name upon first mention in the text and then provide the abbreviation. The full name of abbreviation 'SEM' is not found in the text. Please also check the text for the other abbreviations.

3. In general, symbols for genes are italicized, whereas symbols for proteins are not italicized. Please check the symbols in the text carefully.
Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

Yes

Does the work include the necessary controls?
If not, please specify which controls are required in your comments to the authors.

Yes

Are the conclusions drawn adequately supported by the data shown?
If not, please explain in your comments to the authors.

Yes

Are you able to assess any statistics in the manuscript or would you recommend an additional statistical review?
If an additional statistical review is recommended, please specify what aspects require further assessment in your comments to the editors.

I am able to assess the statistics

Quality of written English
Please indicate the quality of language in the manuscript:

Acceptable

Declaration of competing interests
Please complete a declaration of competing interests, considering the following questions:

1. Have you in the past five years received reimbursements, fees, funding, or salary from an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

2. Do you hold any stocks or shares in an organisation that may in any way gain or lose financially from the publication of this manuscript, either now or in the future?

3. Do you hold or are you currently applying for any patents relating to the content of the manuscript?

4. Have you received reimbursements, fees, funding, or salary from an organization that holds or has applied for patents relating to the content of the manuscript?

5. Do you have any other financial competing interests?

6. Do you have any non-financial competing interests in relation to this paper?
If you can answer no to all of the above, write 'I declare that I have no competing interests' below. If your reply is yes to any, please give details below.

I declare that I have no competing interests

I agree to the open peer review policy of the journal. I understand that my name will be included on my report to the authors and, if the manuscript is accepted for publication, my named report including any attachments I upload will be posted on the website along with the authors' responses. I agree for my report to be made available under an Open Access Creative Commons CC-BY license (http://creativecommons.org/licenses/by/4.0/). I understand that any comments which I do not wish to be included in my named report can be included as confidential comments to the editors, which will not be published.

I agree to the open peer review policy of the journal