Reviewer’s report

Title: Knockdown of estrogen receptor β increases proliferation and affects the transcriptome of endometrial adenocarcinoma cells

Version: 2 Date: 22 May 2019

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses one or several testable research questions? (Brief or other article types: is there a clear objective?)

Yes - there is a clear objective

DESIGN - Is the current approach (including controls and analysis protocols) appropriate for the objective?

Yes - the approach is appropriate

EXECUTION - Are the experiments and analyses performed with sufficient technical rigor to allow confidence in the results?

Yes - experiments and analyses were performed appropriately

STATISTICS - Is the use of statistics in the manuscript appropriate?

Yes - appropriate statistical analyses have been used in the study

INTERPRETATION - Is the current interpretation/discussion of the results reasonable and not overstated?

Yes - the author's interpretation is reasonable
OVERALL MANUSCRIPT POTENTIAL - Has the author addressed your concerns sufficiently for you to now recommend the work as a technically sound contribution? If not, can further revisions be made to make the work technically sound?

Yes - current version is technically sound

PEER REVIEWER COMMENTS:

GENERAL COMMENTS: Summary of the quality assessment of the revised manuscript

The authors performed all the corrections in the manuscript according to the suggestions in the peer review.

Regarding the comments for the Introduction, the authors have described the controversial finding on the expression of ERβ in endometrial cancer and included the relevant references by Obata et al., Knapp et al. and others. Also, the reference to Häring et al. presenting the results of knocked down ERβ expression, has been added.

Regarding the comments for the Methods, a subsection describing the applied statistical methods has been included.

As to the Results, the authors have responded to the question about DPN stating that they have used three other selective ERβ agonists.

Also, the authors have provided a possible explanation for the weaker effects of selective ERβ agonists ERB-041 and Liquiritigenin on tumor cell growth in the Discussion section.

Regarding the comments about the enriched pathways in the obtained Affymetrix data and confirmation of gene expression, the authors have prepared a gene enrichment analysis, added it in the supplementary table S1 and mentioned in the Results that regulation of selected genes of Table 1 had been confirmed by RT-qPCR.

Also, the authors have made the correction in the Abstract and changed "ERβ agonist" to "ERβ modulators".

Conclusion

The authors have made all the corrections suggested in the peer review. In conclusion, the current revised manuscript can be recommended as a technically sound contribution.
ADDITIONAL REQUESTS/SUGGESTIONS:

The authors have responded to all the suggestions presented in the peer review.

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

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