Reviewer’s report

Title: ERα-related chromothripsis enhances concordant gene transcription on chromosome 17q11.1-q24.1 in luminal breast cancer

Version: 0 Date: 22 Oct 2019

Reviewer: Toshima Parris

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Minor Essential Revisions

1. In the Methods section (page 5, line 48), the authors need to explain in more detail which type of expression data (e.g. mRNA microarray data or mRNA sequencing data) was used from firebrowse.org and how the segmented copy number and expression data was analyzed. Which cutoff values were used to determine DNA amplified loci?

2. In the Background (page 5, line 13), the authors state that the study provides evidence of an actionable target "for a type of luminal breast cancer". Please be more specific as to which type of luminal breast cancer (Luminal B or Luminal A) is being referred to here.

3. In the Methods section, please specify the R package version used in the analyses.

4. In the Methods section (page 5, lines 55-58 and page 6, lines 4-7), please motivate why clustered regions were chosen according to the listed criteria.

5. In the Methods section (page 6, lines 42-47), please specify which drug solvent (e.g. DMSO, DMF, etc.) was used to dissolve each drug and whether concentration-matched controls were used in the drug experiments.

6. In the Results section (page 12, line 59), please specify which of the ATC loci refer to regions A-E.

7. In the Results section (page 13, line 39), it is unclear why DNA sequencing data for only 96/1,014 breast cancer samples were used to analyze chromosomal rearrangements.

8. In the Results section (page 15, lines 51-54), why weren't DNA methylation datasets corresponding to the 1,014 DNA sequencing samples also used in the analysis?

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

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Please indicate the quality of language in the manuscript:

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