Reviewer’s report

Title: Lineage relationship between prostate adenocarcinoma and small cell carcinoma

Version: 0 Date: 09 Apr 2019

Reviewer: Reviewer 2

Reviewer's report:

PEER REVIEWER ASSESSMENTS:

OBJECTIVE - Full research articles: is there a clear objective that addresses a testable research question(s) (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?

No - there are minor issues

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

No - there are minor issues

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

N/A - there are no statistics in this study

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

No - there are minor issues

OVERALL MANUSCRIPT POTENTIAL - Is the current version of this work technically sound? If not, can revisions be made to make the work technically sound?
Probably - with minor revisions

PEER REVIEWER COMMENTS:

GENERAL COMMENTS: My understanding is that the authors aimed to dedifferentiate prostate cancer cells using stem cell transcription factors identified in a previous study to be expressed in drug-resistant prostate cancer cells.

The method section is well detailed. Previously, it was maybe a bit too detailed (i.e. cDNA cloning), but now it is of reasonable length.

Some data are over-interpreted, such as gene expression in Figure 1. I don't think one can conclude much on hB2M expression.

Importantly, the authors use 293F as normal cells. 293F cells are derived from HEK293, cells that are transformed and express the viral oncoprotein E1A.

REQUESTED REVISIONS:

To assess hB2M expression correctly in Figure 1, the samples should at least be on the same gel for comparison. Ideally, qPCR should be performed to conclude in low expression levels of hB2M from the strom cells.

Note: This reviewer report can be downloaded - see attached pdf file.

Are the methods appropriate and well described?
If not, please specify what is required in your comments to the authors.

No

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

No

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

No
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.

Not relevant to this manuscript

**Quality of written English**

Please indicate the quality of language in the manuscript:

Acceptable

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