Reviewer's report

Title: Transcription factor E2F1 promotes EMT by regulating ZEB2 in small cell lung cancer

Version: 0 **Date:** 19 Mar 2017

Reviewer: Sukhwinder Sohal

Reviewer's report:

This study by Zunling Li and colleagues investigates the role of transcription factor E2F1 in promoting EMT by regulating Sip1 in small cell lung cancer. The comprehensive degree of experimentation and analysis, plus creative use of human material, makes the paper stand out. It is an important area to continue hammering away at, with EMT as a fundamental process in cancer/remodelling/fibrotic airway diseases, especially perhaps COPD and links to lung cancer. I have some minor comments for the authors -

1. The investigators did not use any control tissue from normal's for the biopsy work, this needs to be discussed?

2. Nuclear expression of β-catenin is also strongly suggestive of active EMT. Authors need to tease out what it means in the current corpus of work. They suggest depletion E2F1 promote epithelial expression of β-catenin, was the expression cytoplasmic or membranous or nuclear after the depletion of E2F1, at the moment it is bit all over the place.

3. Authors inconsistently use the term ZEB2 and Sip1, they need to stick to one to avoid confusion for the readers.

4. Did the authors performed any double stains for the epithelial and mesenchymal markers? If so, it would be nice to add an image on that.

5. Were these patients on any medications, which could potentially affect the results, especially the human tissue data? This needs to be discussed.

6. Authors also need to discuss EMT in NSCLC compared to SCLC, this will add substantially to discussion. They could discuss the paper by Malik Quasir Mahmood et al from Medical Oncology, 2017; Epithelial mesenchymal transition (EMT) and non-small cell lung cancer (NSCLC): a mutual association with airway disease.

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.

No

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.

Not relevant to this manuscript

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Please indicate the quality of language in the manuscript:

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