Reviewer’s report

Title: Notch1 signaling induces Epithelial-Mesenchymal Transition in lens epithelium cells during hypoxia

Version: 1 Date: 16 Apr 2017

Reviewer: Hyun Soo Lee

Reviewer's report:

There are still major concerns that should be addressed.

1. It would be wrong that posterior capsule of lens could be hypoxic condition after cataract surgery, as the authors' hypothesis. The anterior portion of lens absorbs the oxygen from the anterior chamber, which is in higher O2 tension than posterior portion of lens before surgery, but aqueous humor could reach to the posterior capsule after cataract surgery. Plz, clarify this point.

2. The catalogue # and specific information of all materials in this manuscript should be provided in Method section.

3. Quantification of immunohistochemical assay in Fig 2 is needed to verify their results. Also why did the total number of cells in DAPI seem to be different in this assay?

4. CoCl2 only mimics HIF1 activation, thus the authors should need to compare hypoxic condition and CoCl2 treatment on LECs, when their machines will be repaired.

5. Please improve English writing

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.

Yes

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:

Needs some language corrections before being published

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 interest

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