Reviewers report

Title: Colony Stimulating Factor-1 and Leukemia Inhibitor Factor expression from current-cycle cannula isolated endometrial cells are associated with increased endometrial receptivity and pregnancy

Version: 0 Date: 21 Mar 2017

Reviewer: BC Paria

Reviewers report:

The expression MUC1, HOXA10, LIF and CSF1 mRNAs was studied in endometrial cells collected during the time of embryo transfer. The authors have found significant increase in expression of LIF and CSF1 in endometrial cells during the secretory phase of the cycle suggesting that expression of mRNAs of these two cytokines in endometrial cells can be used to identify uterine receptive stage. This is a well-written manuscript, but enthusiasm of this reviewer is weakened because of the following reasons:

1. I am not sure whether or not endometrial cells will be dislodged by simple touching the cannula with the endometrial cell surface. Are these cells attached outside the tube or getting inside the tube?

2. Please make sure that these cells are not coming from the luminal fluid.

3. It is necessary to characterize the cell-types. Are these epithelial or stromal cells? Appropriate markers should be used to characterize cell-types. The reviewer is surprised to see that there are no contaminations of blood cells.

4. It is not possible to collect uterine glandular cells by simply touching the cannula with the uterine luminal surface. This point is raised since LIF mRNA expression is restricted to the endometrial glands during the secretory phase (Cullinan et al., PNAS, 1996). It is possible that samples are contaminated with luminal immune cells. Please perform immunocytochemistry to demonstrate that these two proteins are expressed or present in luminal epithelial cells.

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

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 interests

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