Reviewer's report

Title: microRNA-145 promotes differentiation in human urothelial carcinoma through down-regulation of syndecan-1

Version: 2 Date: 8 July 2015

Reviewer: Ruchika Gangwar

Reviewer's report:

Major Revision
1. It will be convincing if the authors could elaborate on their choice of miR-145 over other micro-RNAs for this study.
2. In Figure 2, is the control, the cells with no treatment or were they also transfected with non-scrambled RNA. Since all the groups should be subjected to similar conditions experimentally, the control taken here should also be transfected with a missense RNA.
3. All the analysis in Figure 2 should be with the controls subjected to similar transfection conditions with a non scrambled sequence to see that the effects are due to miRNA overexpression and not due to procedural changes.
4. In Results, line 151 it states that the cells changed morphologically after additional transfection. Also, Figure 2A shows image with additional transfection. Please provide an image of how the cells looked like after initial transfection and complement them with control after initial and additional transfection for proper comparison.
5. The authors have also mentioned in the methods section, siRNA against syndecan-1. If they have not used it in any experimental analysis, please remove it.
6. Mention the staining used in Figure 4A in methods section, line 123.

Minor Revision
1. In the Methods section, mention from where the cell lines were received (purchased or from other source).
2. Line 416. There is mention of prostate cancer, I believe it is a typo error. Please correct it appropriately.
3. Incorporate Mention of Figure 4A in the Results section.
4. Figure 4 legends. Please mention the statistical analysis used for comparison in the legends.

Discretionary Revision
1. There are many evidence in literature showing alteration of microRNA being involved in bladder cancer development. A mention of these studies in the introduction can be helpful.
Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests.