Reviewer’s report

Title: IL-10Ra expression is post-transcriptionally regulated by miR-15a, miR-185, and miR-211 in melanoma

Version: 0 Date: 02 Oct 2015

Reviewer: William Damsky

Reviewer’s report:

This manuscript focuses on the role of IL-10 in melanoma. Specifically this group focuses on regulation of IL-10 signaling by microRNAs. I think the possibility that melanoma cells rely on IL-10 signaling for proliferation is very interesting. However, I do not feel the authors have sufficiently demonstrated the mechanism by which this occurs. The miRNA data is interesting, but requires some additional controls.

1. The title of the article is slightly confusing

2. Should look at protein levels or IL-10, IL-10Ra, IL-10Rb to see if there levels correlate - especially bc looking at effect of miRNAs

3. "The expression levels of these miRNAs were confirmed by qPCR (Fig 2B.)" - this data does not appear to be qPCR data

4. Figure 2C is not referenced in the text

5. At the resolution provided in this draft, the reader cannot tell the difference between the different conditions in Figure 4A.

6. The magnitude of the effect of the miRNA inhibitors on proliferation in 4B and mimics in 4C seems dramatic compared to the magnitude of the effect of IL-10 in 4A. To me this suggests that the effect of miR-15a, 185, and 211 on proliferation may be through effects other than IL-10. I think that an siRNA approach (or analogous) to specifically knock down IL-10 signaling is a critical control and the magnitude of this effect should be compared to the magnitude of the miRNA experiments. Another approach to show the effect of the miRNA depends on knockdown of IL-10 would be appropriate.

7. The statement: "...relative to normal melanocytes, any significant change in IL-10 amounts occurred in the melanoma cell lines studied (Fig. 1)" is confusing.

8. The last paragraph of the discussion is confusing and does not seem to reconcile the difference in findings mentioned in Ref 14.

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.

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.

I am able to assess the statistics

**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 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.