Reviewer’s report

Title: Elevated expression of prostate cancer-associated genes is linked to down-regulation of microRNAs

Version: 1 Date: 23 October 2013

Reviewer: Paul G Shiels

Reviewer’s report:

This is a manuscript with much potential, but which could do with some restructuring, simplification and revision to make it clearer. At present, it is a bit of a 'mish-mash'.

My main criticisms are:

Major
The manuscript really looks like two separate bodies of work. It could be strengthened by simplification of the screening work, assembled into one report, while the reporter assay work could be a separate manuscript, but this would need all the candidate miRNAs similarly treated. It currently adds little to the manuscript, as it appears as an incomplete add on. I have sympathy with the authors and understand why they did this. The work is sound and rational but an incomplete fit as it presently stands.

Minor
1. The authors need to detail more specifically, what expression fold change were determined as significant, and with what confidence intervals were they used (e.g. 95 or 99%).
2. The use of 1.5 expression fold change as a cut off is low. This should be minimally x 2, like most other published work in the field and ideally at 99% CI.
3. The expression changes might be more meaningfully shown as a heat map, which is again common for this type of work, rather than tables.
4. A Power calculation missing for clinco-path associations. This might help strengthen assertions made using these data.
5. Fig 2 plots C and D look skewed by outlier samples. This should be addressed.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Not suitable for publication unless extensively edited

Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

I declare that I have no competing interests.