**Reviewer's report**

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

**Version:** 1  **Date:** 21 October 2013

**Reviewer:** Prabhakar Rajan

**Reviewer's report:**

This manuscript by Erdmann et al characterises expression of miRNAs in prostate cancer, firstly undertaking in silico analyses, and performing validation in a new cohort of patients, and making clinico-pathological correlates. Finally, some preliminary functional data is presented. The manuscript presents predominantly correlative data, but is of general interest to the prostate cancer field, specifically to those with an interest in miRNAs and gene expression profiling.

The authors should be commended on producing a manuscript with exemplary presentation and technical english, which is certainly worthy of publication in this journal. I have a few comments which would strengthen the manuscript prior to publication.

**Major Compulsory Revisions**

1. The authors should give details of how samples were processed i.e. How were tumour rich areas were harvested for analysis? Was macrodissection or microdissection performed?

2. Authors should state why using RNU48 was used for normalisation of miRNA expression. Some snoRNAs are mis-regulated in cancer - did they consider and/or use any other "housekeeping" RNAs? Clearly, mis-regulation of RNU48 could bias results.

3. Authors need to show data demonstrating vector-based over-expression of mir26a and also baseline levels of expression for prostate cancer cell lines. This is current "data not shown", but should be shown if only in supplementary data.

4. Error bars for luciferase assays: Is this SEM or SD? This should be clearly stated in the figure legends.

**Minor Essential Revisions**

1. The discussion section is rather lengthy and could be made more succinct in terms of previous data and relevance of current data to prostate cancer field.

**Discretionary Revisions**

1. The authors should consider making Table 4 and 5 into graphical format. At present, the tabulated form makes data interpretation quite difficult.
Level of interest: An article of importance in its field

Quality of written English: Acceptable

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