Reviewer’s report

Title: MicroRNA-217 functions as a prognosis predictor and inhibits colorectal cancer cell proliferation and invasion via an AEG-1 dependent mechanism

Version: 2 Date: 15 January 2015

Reviewer: Mogens Karsbøl Boisen

Reviewer’s report:

This manuscript describes the prognostic and mechanistic role of miR-217 expression in colorectal cancer (CRC). The authors show that miR-217 is downregulated in CRC tissue and that low miR-217 could be a negative prognostic factor. They also demonstrate an inhibitory effect of experimental upregulation of miR-217 on cancer cell line proliferation, growth and invasiveness in vitro and in vivo. Finally, they demonstrate the ability of miR-217 to target AEG-1 and show a negative correlation between miR-217 and AEG-1 in clinical samples.

The studies are well-designed and provide interesting new data to the field of microRNAs in CRC. There are many language mistakes in the manuscript and a comprehensive language revision is needed. The manuscript should be acceptable for publication if the revisions below are performed.

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

1. Provide references (web site URLs) for target prediction algorithms used (Targetscan etc.)
2. Remove “strongly” from line 302 and line 327, “intensively” in line 313, and “great” in line 328. This is overstating the strength of the data.

Major Compulsory Revisions (which the author must respond to before a decision on publication can be reached)

3. Language editing; there are a lot of instances of misuse of words/phrases, spelling mistakes and confusing sentences. A major (professional) language correction is needed.
4. The authors should provide a data set with the qRT-PCR expression of miR-217, U6, AEG1 and GAPDH, survival data and clinico-pathologic data in order for reviewers and readers to validate their findings.
5. How was the pathology (cancer/normal) of the frozen samples confirmed? Please also add information about this subject in the method section.
6. In Table 1, 19/26 patients with low miR-217 had distant metastases (=stage IV disease), but only 14/26 were listed as stage III+IV. Please explain and correct this discrepancy.
7. The authors should also analyze the prognostic value of AEG-1 in both
univariate and multivariate analysis and show if miR-217 expression has
prognostic value beyond the correlation with AEG-1 expression.

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

**Declaration of competing interests:**

I declare that I have no competing interests