Reviewer's report

Title: MiR-133b is frequently decreased in gastric cancer and its overexpression reduces the metastatic potential of gastric cancer cells

Version: 3 Date: 9 September 2013

Reviewer: manuela gariboldi

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Major Compulsory Revisions:

In answer to the question: "In fig 4C reduction of GLI1 expression after introduction of miR-133b is detectable, I have some concerns about reduction of the two genes that are target of GLI1 (ZEB2 and OPN)", authors added results of mRNA expression for ZEB2 and OPN that show a reduction of the two genes in presence of miR-133b mimic. This result does not support a reduction of the two genes at protein level, thus the sentence stating that "protein levels of ZEB2 and OPN were markedly reduced in MKN-28 cells transfected with miR-133b mimic" must be deleted. Authors should also discuss this finding (reduced expression of ZEB2 and OPN mRNA but not of their corresponding proteins) in the discussion.

The authors did not reply to the query regarding the association between miR-133b expression and clinical features of GC. In the answer they explained the meaning of the variable used for stratification of samples but not explained how they chose the cut off (<0.5, 0.5-2.0 and >2). As mentioned in the review, how this choice was made is very important for validity of the results: "The criteria used for dividing cases into three groups according to expression of miR-133b are not indicated. Was the choice of the cut-off values based on previous knowledge? If the authors chose the cut-off based on the observed association between the expression of the miR and the outcome, the reported results would not be valid (overestimation of the real association). A better categorization should be obtained by determining cut-off values using tertiles. Alternatively, the association between the expression of the miRNA and the clinical characteristics of cases must be done using miRNA levels as continuous variable. This type of analysis would guarantee a better statistical power compared to the analysis that uses the categorized values of the miR".

Please explain the choice or repeat the analysis as previously suggested.

Again, English must be edited.

Level of interest: An article of importance in its field

Quality of written English: Needs some language corrections before being published
Statistical review: Yes, and I have assessed the statistics in my report.

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