Reviewer’s report

Title: The expression level of miR-18b in hepatocellular carcinoma is associated with the grade of malignancy and prognosis

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Reviewer: GUISHENG SONG

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MicroRNAs (miRNA) are small non-coding RNAs that play important roles in proliferation, apoptosis, metabolism, and development by inhibiting the expression of the target genes. Growing evidence shows that miRNAs are related to many types of human cancers.

In this manuscript, Dr. Murakami et al. explore the correlation between the expression level of miR-18b and the grade of malignancy and prognosis in hepatocellular carcinoma (HCC). The authors found that miR-18b has higher expression in poorly differentiated HCC than in well differentiated HCC. Furthermore, they provide data showing that miR-18b can inhibit expression of trinucleotide repeat containing 6B (TNRC6B). Finally, the authors concluded that miR-18b is a diagnostic and prognostic marker for HCC progression.

Based on the functional approach, this study meets the journal’s scope in general and the manuscript is well organized the data is convincing. The authors for the first time found that miR-18b is a potential marker for diagnosis and prognosis for HCC. However, the following concerns should be addressed before publication.

1. The authors claimed that TNRC6B is the target of miR-18b. In order to further support this conclusion, the author should clone 3’UTR of TNRC6B into luciferase reporter vector and determine whether miR-18b has effect on luciferase activity after co-transfection of luciferase reporter vector and miR-18b mimic or miR-18b inhibitor.

2. The authors should mutate the seed region of 3’UTR of TNRC6B and determine whether the mutation impair the effect of miR-18b mimic or inhibitor on luciferase activity.

3. The protein is the real player of cellular processes. How about protein level of TNRC6B? Does overexpression of miR-18b or miR-18 inhibitor have effect on protein level of TNRC6B?

I agree to publish after revision.

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

Quality of written English: Needs some language corrections before being published
**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