Reviewer’s report

Title: MicroRNA-144 suppresses cholangiocarcinoma cell proliferation and invasion by targeting LIS1

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Reviewer: Arthit Chairoungdua

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General comment
The manuscript demonstrates the down-regulation of miR-144 in CCA tissues and cell lines compared to normal cells. The author further identified the miR-144 target gene and examined it role in CCA progression. Therefore, the paper highlight the possible therapeutic target for CCA in the future. However, in order to strengthen the manuscript, the following should be addressed.

Major compulsory revision
1. How did the overexpression of miR-144 and/or reduction of LIS1 expression resulted in suppression of Akt phosphorylation and MMP2 expression? How is it involved in suppression CCA cell proliferation, invasion and motility?
2. It would be interesting to examine the effect of miR-144 inhibition of CCA cell phenotypes.
3. As the author mention in discussion, in contrast with this study, “ectopic expression of LIS1 inhibited hepatocellular carcinoma cell proliferation”. The author should discuss this discrepancy in the discussion.
4. Figure 3E, what is the level of miR-144 after transfection with anti-miR-144?
5. What kind of mice are used in this study between nude mice and SCID mice? In result part, the author described that nude mice were used. However, the author mention that SCID mice were used in figure 5.

Minor essential revision
1. Spelling and grammar should be carefully checked such as “cholangiocarcinoma not choriocarcinoma”.
2. Phosphorylation site on AKT should be indicated in Figure 2 and 4.
3. The author should indicate the statistic that used in each Figure.
4. Is LIS1-UTR-MUT (Figure 3B) double mutations?
5. How many mouse was used in Figure 5?
6. The exogenous miR-144 expression decreased cell viability only after 72 h not 48 h (the author mention in the result) after infection.
7. For cell proliferation assay, what kind of method was used between CCK-8 cell counting kit (in materials and methods) and MTT assay (in result and figure legends).
Level of interest: An article of importance in its field

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