Reviewer's report

Title: miR-372 down-regulates the oncogene ATAD2 to influence hepatocellular carcinoma proliferation and metastasis

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Reviewer: Ahmed Abdelaziz

Reviewer's report:

In this study, the authors have studied the role of ATAD2 in hepatocarcinogenesis for the first time. They have shown a significant upregulation of ATAD2 in cancerous tissues and cell lines especially on both the mRNA and protein levels. Moreover, they showed a positive correlation with ATAD2 expression and tumor metastasis. They have also elucidated the role of ATAD2 in cell growth, proliferation, invasion and apoptosis and its correlation with some mitogenic signaling pathways. Furthermore, Gang Wu, et.al. have shown that miR-372 was negatively correlated with ATAD2 and they confirmed its binding to the ATAD2 3’ UTR region.

The work is of potential interest but with some minor critics

- The authors have to verify their choice for miR-372 specifically whether it has been preceded by microarrays? with illustrating the binding energy to the target region. In addition I would suggest to test the binding of miR-372 to the 5’ UTR

- Did the authors test the expression difference in males and females (106, 23 respectively) in both ATAD2 and miR-372, due to the gender variation in gene expression?

- The references need to be revised, for example ; reference number 2 is missing the volume and page numbers

- Figure 1 b is redundant and should be omitted with the dot plot is more than enough

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

Quality of written English: Acceptable

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