Reviewer's report

Title: Knockdown of anterior gradient 2 expression extenuates tumor-associated phenotypes of SNU-478 ampulla of Vater cancer cells

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Reviewer: Murray Korc

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This study evaluated the role of AGR2 in cancers of the ampulla of Vatter (AOV) by demonstrating variable levels of AGR2 expression in AOV cancer cell lines. The authors show that knockdown of AGR2 using shRNA in SNU-478 cells decreased their viability and anchorage-independent growth, enhanced their response to gemcitabine, 5-FU, and cisplatin, and blocked their ability to form tumors in a xenograft nude mouse model. Conversely, AGR2 overexpression in SNU-869 cells resulted in increased viability and invasiveness. Overall, this is a well-written manuscript with a good experimental design that is focused on AOV cancers. While AGR2 has been demonstrated to have a role in several cancer types, the authors now demonstrate that AGR2 also has a role in AOV cancers. This is therefore important for investigators in this field.

The conclusions flow logically from the results which have been properly analyzed.

The only concern this reviewer has is a minor one. Basically, the last 3 paragraphs of the discussions should be strengthened. As currently written, they do not convey a clear message, and this minor essential revision will be helpful to the readers of the journal and will strengthen the paper.

Level of interest: An article of outstanding merit and interest in its field

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