Reviewer’s report

Title: High SIRT1 expression is a negative prognosticator in pancreatic ductal adenocarcinomas

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Reviewer: Younh-Hwa Chung

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Pancreatic ductal adenocarcinoma (PDAC) is the fourth leading cause of cancer related death in the United States. Since the overall 5-year survival rate is approximately 5%, a search for prognosticator of PDAC is required for extending a patient's life. In this study, the authors paid an attention to SIRT1, a class III histone deacetylase.

Major comments

1. Based on the clinical results on PDAC samples, they concluded that strong SIRT1 expression is a significant predictor of poor survival but did not see a positive correlation of SIRT1 expression with tumor progression. It is hard to understand to their result and conclusion; SIRT1 is an independent prognosticator in PDACs abd plays an important role in pancreatic cancer cell growth. Please discuss this matter; Role of SIRT1 between clinical PDAC samples and pancreatic cancer cell lines.

2. They showed that over-expression of SIRT1 enhances proliferation of Panc1 or Miapaca cells. When they would like to emphasize a positive role of SIRT1 in pancreatic cancer cell growth, they should show experiments that suppression of SIRT1 expression with siRNA or inhibition of SIRT1 with Nicotinamide can decrease pancreatic cancer cell growth.

3. Although they showed cellular effects of cambinol, gemcitabine and genfitinib on Panc1 or Miapaca cells, growth inhibition of Panc1 or Miapaca cells by treatment with those drugs should be connected to a low expression of SIRT1 protein in order to support their hypothesis. They should show a relationship of growth inhibition with SIRT1 levels at different concentrations of each drug. Although they showed that treatment with cambinol at high conc. of 100 or 200 mM reduces SIRT1 protein levels in supplementary fig.3, they should show this result in a regular figure.

Minor comments

1. In figure legend (Table 1,2,3 and Figure 1), we found a different letter style compared to other figure legends (Figure 2, 3, 4).

2. Please correct figure 1 labeling as a uniform style.

3. In 18 line 10 and line 14, they should put two sentences apart.
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'