Reviewer's report

Title: Hypermethylation and Tumor Suppressive Role of Homeodomain Only Protein X Gene in Pancreatic Carcinogenesis

Version: 1 Date: 30 March 2012

Reviewer: Christoph Michalski

Reviewer's report:

In this study, the authors report that HOPX is widely lost in pancreatic cancer due to hypermethylation in its promoter region (mainly the HOPX beta transcript). IHC studies demonstrate that islets cells are the major cell type expressing HOPX. Furthermore, a set of in vitro experiments shows that re-expression of HOPX significantly reduces certain malignant behaviors (e.g. proliferation and invasion) of pancreatic cancer cells. The findings are interesting, however, several points need to be addressed before it is suitable for publication.

Major points:

1) Figure 1B, a quantitative PCR is required. Figure 1C, why do HOPX bands from TE15 and MIA-PaCa2 appear at different sizes?

2) Figure 2B, the figure is not convincing, a quantitative PCR is required.

3) Figure 3B, the quality of the blot can be improved. Figure 3C, 3D, what is the exact cellular localization of HOPX? Is it mainly in the cytoplasm or in the nucleus?

4) Figure 4A, what is the exact histological diagnosis of the presented tumor section?

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.