**Supplementary Fig.1.** **The effects of arsenic acid or the peptide-linked arsenic compound on the proliferation of normal pancreatic epithelial cells.** Normal pancreatic epithelial cell (HPDE) was incubated with arsenic acid (ATO) and the peptide-linked arsenic compound (PhAs-LHP) for 24 h. The cell proliferation was determined by MTT. ATO and PhAs-LHP significantly inhibited the proliferation of HPDE by 10% at 5 M. There was no significant difference between the effect of ATO and PhAs-LHP.

**Supplementary Fig.2. The inhibition by arsenic acid and the peptide-link arsenic compound of pancreatic cancer growth was increased by gemcitabine.** Tumor growth was calculated by taking the tumor volume measured on Day 7 when the treatment was started as 100% (A, B). Arsenic acid (PAO) and the peptide-linked arsenic compound (PhAs-LHP) decreased the tumor growth (A). Gemcitabine decreased the tumor growth and appeared to further reduce the tumor growth of mice treated by PAO and PhAs-LHP (B). Relative tumor weights were calculated taking control (not treated by either PAO or PhAs-LHP) as 100% (C). PAO and PhAs-LHP decreased the tumor weight significantly compared to the nontreated control (CT). In the presence of gemcitabine, the tumor weights from the mice treated with PAO or PhAs-LHP were further reduced compared to gemcitabine alone (C). ^, \*, p<0.05; \*\*, ##, p<0.01.