Supplementary Information

Localized delivery of gel-embedded siRNA nanoparticles for pancreatic cancer treatment: Formulation, biodistribution and bioactivity in mice

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1. Photomicrographs depicting the surgical procedures (Fig. S1).
2. Experimental setup of the bioactivity and biodistribution studies in the mouse pancreatic cancer model (Fig. S2).

Fig. S1. Photomicrographs depicting the surgical procedures

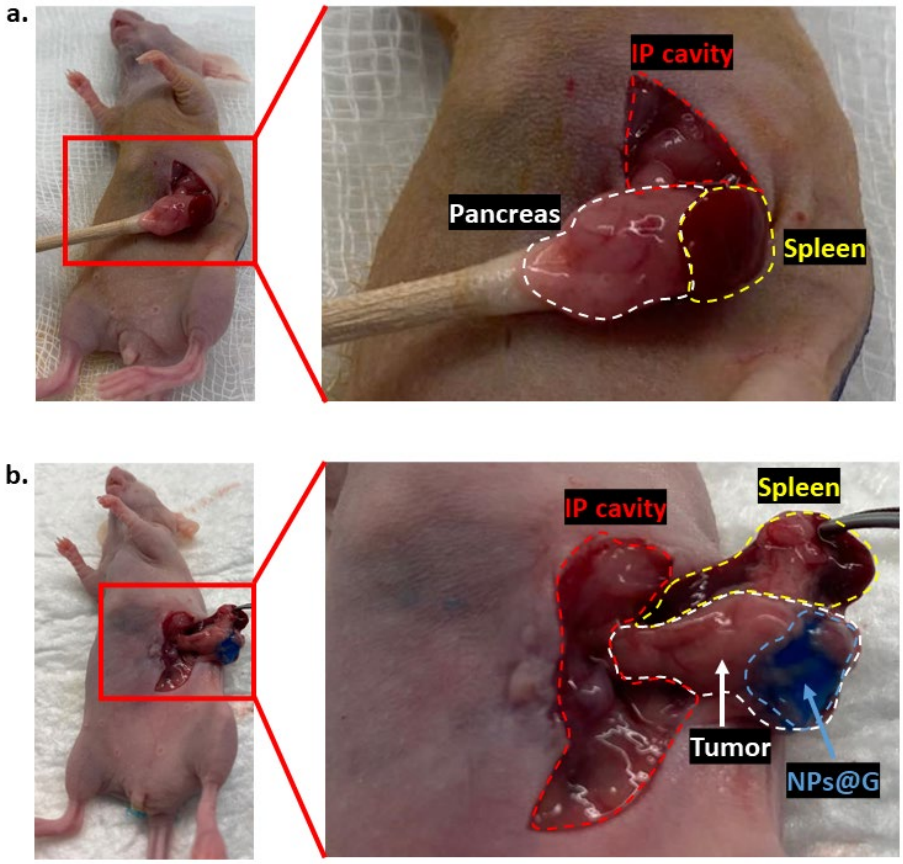

Fig. S1. Photomicrographs depicting the surgical procedures. **a**) Longitudinal laparotomy exposing the spleen and pancreas of intact mouse. **b**) Local administration.

Fig. S2. Experimental setup of the bioactivity and biodistribution studies in the mouse pancreatic cancer model.

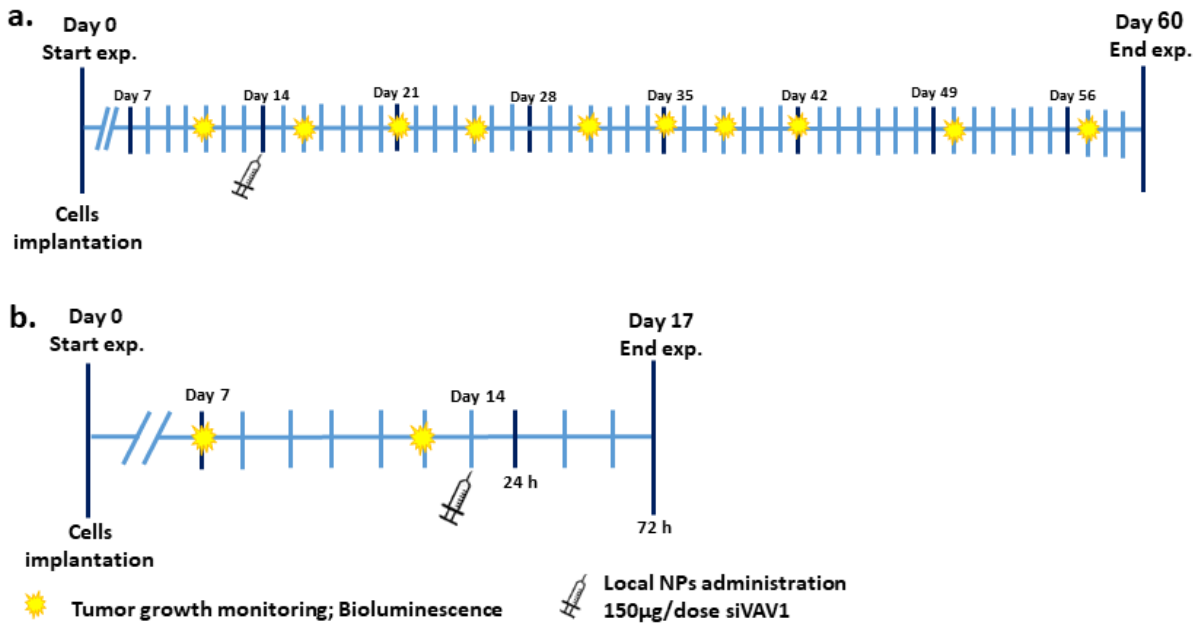

Fig. S2. Experimental setup of the bioactivity (**a**) and biodistribution (**b**) studies in the mouse pancreatic cancer model. **a**) Non-targeted or targeted NPs in gel (NPs@G) were implanted in the pancreas of mice (n = 22) 14 days after orthotopically inoculating Dan-$G^{Luc/GFP}$ PC cells, in comparison to siVAV1-lipofectamine@G implantation (150µg siVAV1/mouse). Mice were euthanized at the pre-determined humane-endpoints, and tumor growth was monitored by means of bioluminescence. **b**) The biodistribution of targeted NPs in gel was examined in a separate group of animals (n = 20) in comparison to targeted NPs in suspension (tNPs@G and tNPs@S; equivalent to the NPs dose in the bioactivity study). Mice were euthanized 24 and 72 h following treatment, and NPs accumulation in the blood and organs were analyzed by means of flow cytometry and typhoon scanner, respectively. In addition, mice euthanized at the humane-endpoints in the bioactivity study (**a**) were also analyzed for NPs biodistribution.