Online Supplemental Materials

Protection of pancreatic islets using theranostic silencing nanoparticles in a baboon model of islet transplantation

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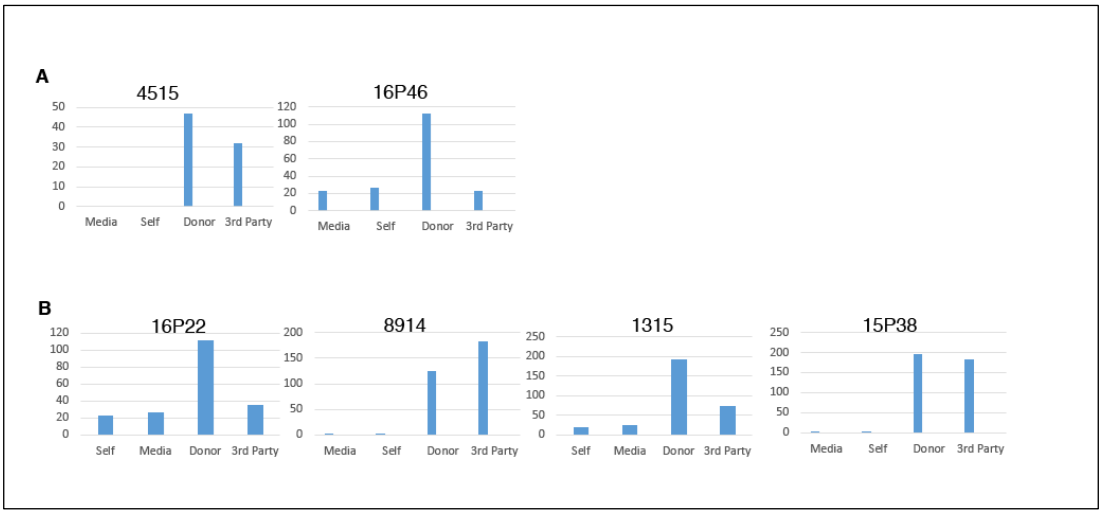
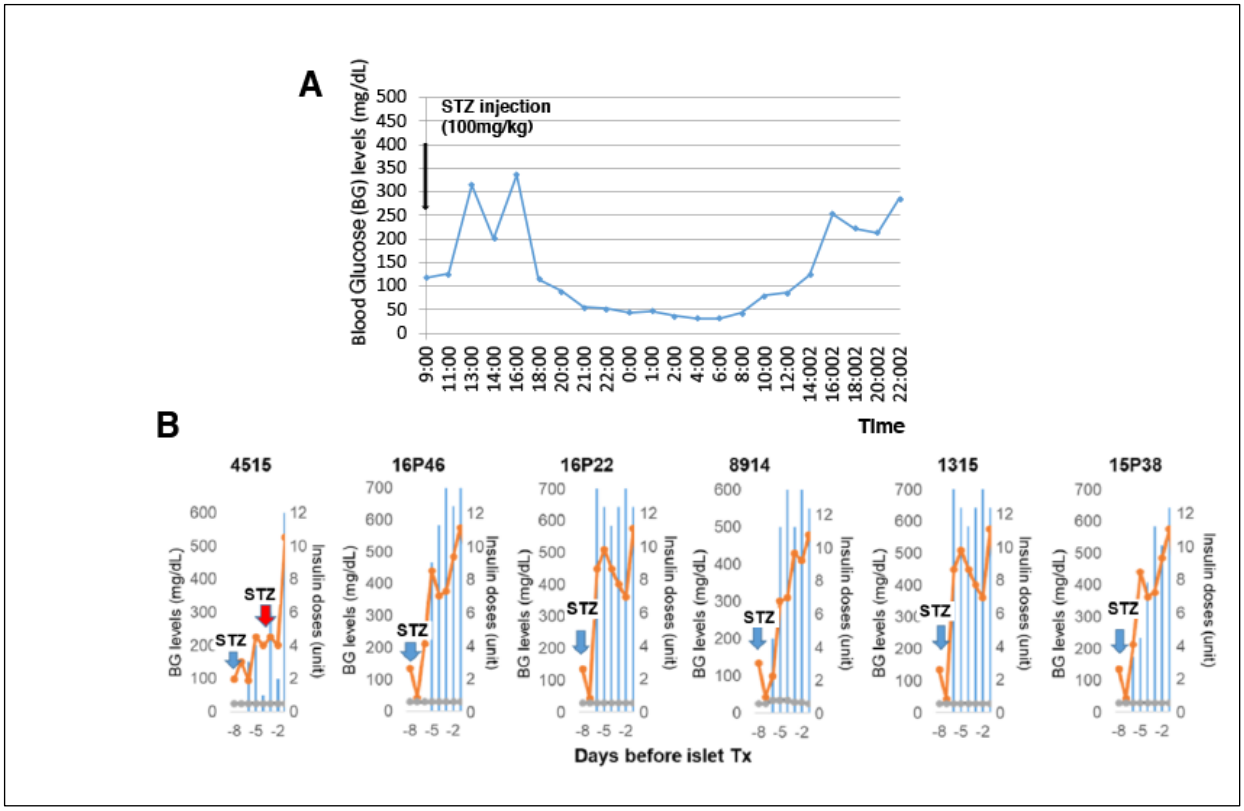
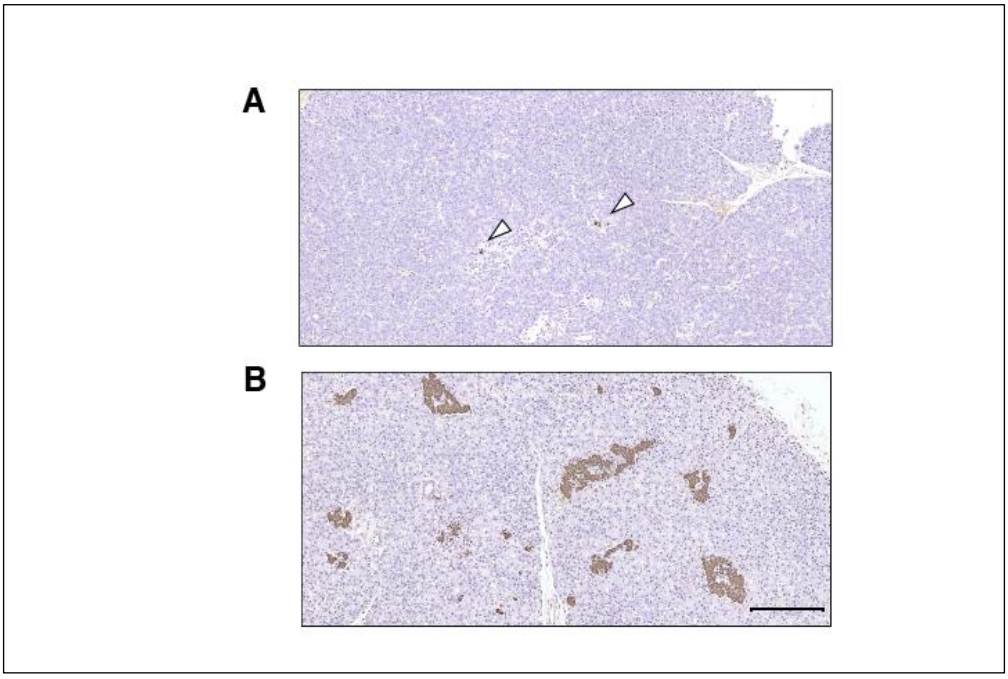
Supplemental Figures



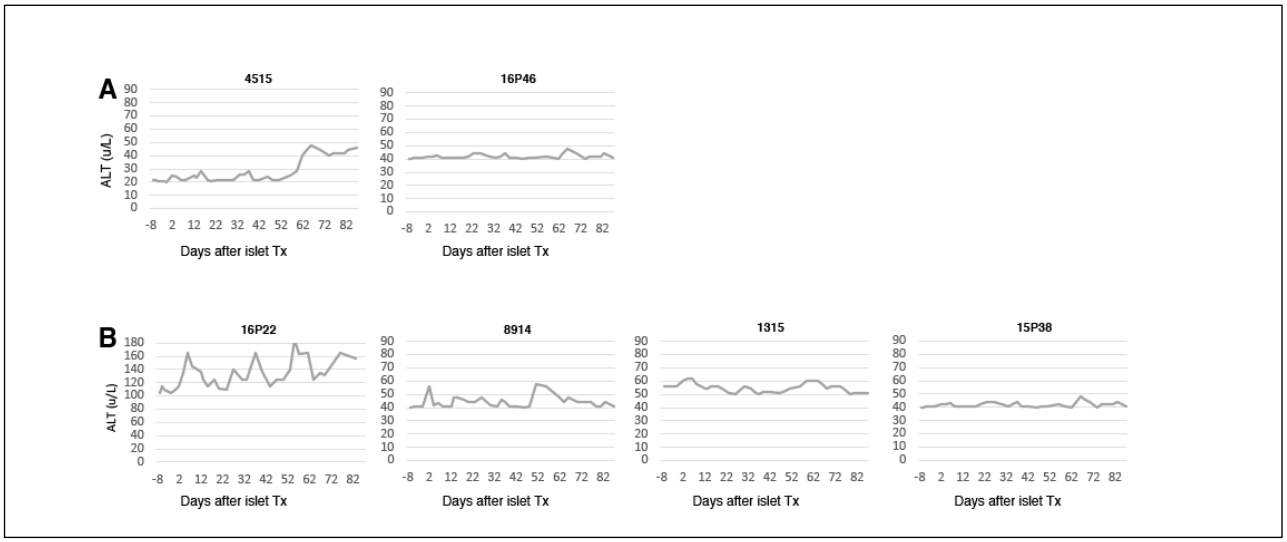
Supplemental Figure 1. Elispot assay was performed to determine anti-donor response prior to immunosuppression. **A**: individual animals in the control group. **B**: individual animals in the experimental group. All recipient baboons demonstrated an appropriate response to the donors. Human PBMCs were used as positive control.



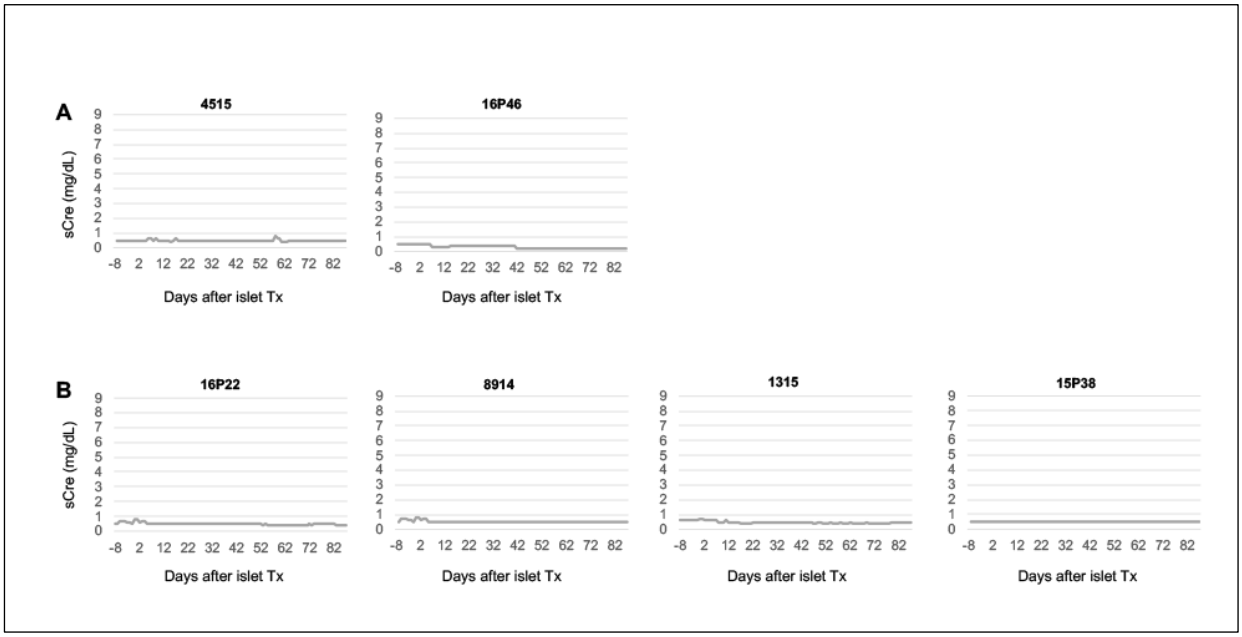
Supplemental Figure 2. (A): Blood glucose values during the first for 36 hours after STZ injection. There was an initial spike in blood glucose that was observed secondary to the stress of sedation. Over the next 24 hours the animals exhibited profound hypoglycemia caused by the lysing of the native islet cells and systemic release of insulin followed by hyperglycemia and elevated fasting blood glucose levels. **(B):** Blood glucose levels (BG) after STZ administration (individual animals are shown).



Supplemental Figure 3. Confirmation of STZ destruction of native pancreatic islets at necropsy. There was a small number of native islets in the pancreas of diabetic animal that appeared degenerated and scattered **(A)** compared to healthy pancreatic tissue from a naïve (unrelated) baboon **(B)**. Bar = 200µm.



Supplemental Figure 4. Long-term safety of transplanted islets. Liver function was not affected by islet labeling with the probes in either control **(A)** or experimental **(B)** group. CBC including white cell count, hematocrit and platelet count were unremarkable in either control **(C)** or experimental **(D)** group. See details in the text related to animal 4515.



Supplemental Figure 5. Creatinine levels were unchanged during the course of the study in either control **(A)** or experimental **(B)** group (individual animals are shown).