

Online Supplemental Material

Intracutaneous Transplantation of Islets within a Biodegradable Temporizing Matrix (BTM) as an Alternative Site for Islet Transplantation

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Online supplemental material 1. 3-Dimensional Tile Map of IDT Interface with Blood Vessels. For this in vivo study a form of the Biodegradable Temporizing Matrix (Novosorb) was used that is identical except that it lacks the surface seal component of BTM and is referred to here as IDT. IDT was surgically placed under the renal capsule of C57BL/6 mice carrying a myeloid-GFP reporter and expressing tdTomatoe Red, and after 30 days the implantation site was imaged using 2-photon microscopy. Note the intense myeloid accumulation (Green fluorescence) at the IDT interface and the dense vascularisation (Evans Blue dye; appears white) evident in and around the transplant region. Blue areas represent collagen and are derived from the optical effect of second-harmonic generation. Red areas are non-myeloid cells and tissues constitutively expressing tdTomato fluorescence and include vessels. Angular 'dark' regions within the kidney tissue mass are the embedded structures of the IDT. See Methods for mouse line and 2-photon imaging technical information.