

SUPPLEMENTARY DATA

Supplemental Table 1. Average number (\pm s.e.m.) of total and proliferating β -cells counted from mouse islets at each time point

Mouse Islets					
Figure	Group		Total β-cell	Ki67(+)β-cell	
1 H,I	Control	5 mice	G0	2849.2 \pm 458.8	35.2 \pm 6.1
		3 mice	G15.5	2710.7 \pm 239.7	58.3 \pm 5.5
		3 mice	G17.5	4837.0 \pm 313.4	56.7 \pm 5.6
		3 mice	P0	5984.3 \pm 90.2	37.7 \pm 1.5
		4 mice	P4	2656.8 \pm 265.3	25.3 \pm 7.8
	LIRKO	4 mice	G0	3191.3 \pm 491.7	75.5 \pm 26.2
		3 mice	G15.5	4484.0 \pm 725.9	338.0 \pm 134.5
		3 mice	G17.5	3395.7 \pm 180.5	127.0 \pm 17.5
		3 mice	P0	6188.0 \pm 1226.3	17.3 \pm 12.6
		3 mice	P4	6806.0 \pm 219.0	25.0 \pm 7.2
Figure	Group		Total β-cell	pHH3(+)β-cell	
Suppl.2 A,B	Control	4 mice	G0	2045.3 \pm 61.8	4.8 \pm 0.5
		3 mice	G15.5	3412.3 \pm 280.1	20.0 \pm 2.3
		3 mice	G17.5	2027.0 \pm 459.0	9.0 \pm 1.5
		3 mice	P0	2434.0 \pm 527.4	6.7 \pm 0.3
		4 mice	P4	7225 \pm 2446.8	23.7 \pm 9.7
	LIRKO	3 mice	G0	4331.0 \pm 727.0	21 \pm 4.9
		3 mice	G15.5	3639.3 \pm 1275.4	47.3 \pm 20.9
		3 mice	G17.5	3313.7 \pm 868.2	24.0 \pm 8.7
		3 mice	P0	3515.3 \pm 441.0	23.7 \pm 4.6
		3 mice	P4	5112.0 \pm 1009.7	14.3 \pm 4.3

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Supplemental Table 2. Human islet donor information.

Human Islet only Transplantation							
Figure	Source and Case ID	Gender	Age	Ethnicity	BMI	Purity (%)	Viability (%)
4 A-D	IIDP-ACIK323	M	37	H/L	25.3	95	95
	IIDP-ACI4273	M	53	W	33.0	85	95
	IIDP-ACJL467	F	62	W	29.8	95	96
Human Islet + Duct Transplantation (ducts were isolated from same donor)							
Figure	Source and Case ID	Gender	Age	Ethnicity	BMI	Purity (%)	Viability (%)
4 A 5 A, D-I	Prodo, HP16337	F	49	AA	23.3	90	95
	Prodo, HP17092	M	44	AA	31	90	95
	Prodo, HP-17110	F	36	AA	31	90	95
Human Pancreas Samples from nPOD							
Control Cases							
Figure	Source and Case ID	Gender	Age	Ethnicity	BMI	C-peptide	
6 A-M	nPOD-6034	F	32	Caucasian	25.2	3.15	
	nPOD-6165	F	45.8	Caucasian	25	4.54	
	nPOD-6251	F	33	Caucasian	29.5	1.92	
	nPOD-6366	F	21	H/L	20.5	0.41	
Pregnant Cases							
Figure	Source and Case ID	Gender	Age	Ethnicity	BMI	C-peptide	Age of Pregnancy (w)
6 A-M	nPOD-6226	F	38	Asian	27.2	3.87	32
	nPOD-6257	F	19	AI/AN	45.9	23.18	12
	nPOD-6363	F	36.7	AA	45	1.47	34
	nPOD-6383	F	22.2	AA	34.4	7.26	40
T2D Cases							
Figure	Source and Case ID	Gender	Age	Ethnicity	BMI	C-peptide	Duration of Diabetes (y)
6 A-M	nPOD-6132	F	55.8	H/L	44.6	0.8	na
	nPOD-6139	F	37.2	H/L	45.4	0.6	1.5
	nPOD-6304	F	52	H/L	37.9	2.34	25

UNOS ID: United Network for Organ Sharing, M; Male, F; Female, AA; African American, AI/AN; American Indian/ Alaska Native, H/L; Hispanic/Latino, W; White, BMI; Body Mass Index, (w); weeks, (y);years, n/a; not available.

SUPPLEMENTARY DATA

Supplemental Table 3. Average number (\pm s.e.m.) of total and proliferating β -cells counted from mice receiving human islet transplantation or nPOD samples

Human Islets					
Figure	Group			Total β-cell	BrdU(+)β-cell
4 C	NSG-Lox	5 mice	G0	1753.8 \pm 367.5	3.4 \pm 1.2
		5 mice	G15.5	2381.6 \pm 467.0	11.8 \pm 2.3
	NSG-LIRKO	4 mice	G0	2114.0 \pm 335.2	10.0 \pm 2.3
		5 mice	G15.5	1486.2 \pm 176.3	11.0 \pm 2.1
Figure	Group			Total β-cell	Ki67(+)β-cell
4 D	NSG-Lox	5 mice	G0	2065.8 \pm 333.6	6.6 \pm 0.9
		5 mice	G15.5	2799.6 \pm 479.7	15.8 \pm 2.9
	NSG-LIRKO	4 mice	G0	2924.0 \pm 459.7	13.5 \pm 3.0
		5 mice	G15.5	2678.0 \pm 217.5	23.2 \pm 3.3
Figure	Group			Total β-cell	pHH3(+)β-cell
Suppl. 8 C	NSG-Lox	5 mice	G0	1225.4 \pm 116.5	1.8 \pm 0.4
		5 mice	G15.5	2091.6 \pm 256.9	8.2 \pm 1.2
	NSG-LIRKO	4 mice	G0	1869.5 \pm 384.0	6.3 \pm 1.4
		5 mice	G15.5	1447.4 \pm 232.1	8.2 \pm 2.2
Mouse Pancreatic Islets					
Figure	Group			Total β-cell	BrdU(+)β-cell
Suppl. 9 A	NSG-Lox	5 mice	G0	2063.6 \pm 243.3	2.4 \pm 0.2
		5 mice	G15.5	1957.4 \pm 73.5	14.8 \pm 8.2
	NSG-LIRKO	4 mice	G0	3534.0 \pm 267.5	6.3 \pm 2.0
		5 mice	G15.5	5076.8 \pm 610.3	251.2 \pm 65.8
Figure	Group			Total β-cell	Ki67(+)β-cell
Suppl. 9 B	NSG-Lox	5 mice	G0	2123.8 \pm 296.5	1.0 \pm 0.3
		5 mice	G15.5	1964.0 \pm 48.2	4.6 \pm 4.1
	NSG-LIRKO	4 mice	G0	3624.5 \pm 241.0	7.3 \pm 1.7
		5 mice	G15.5	5312.4 \pm 934.4	116.2 \pm 39.7
Figure	Group			Total β-cell	pHH3(+)β-cell
Suppl. 9 C	NSG-Lox	5 mice	G0	2199 \pm 249.2	1.2 \pm 0.4
		5 mice	G15.5	2068.2 \pm 152.8	5.4 \pm 1.9
	NSG-LIRKO	4 mice	G0	3715.3 \pm 386.0	4.0 \pm 0.4
		5 mice	G15.5	5091.4 \pm 705.8	117.0 \pm 36.7
nPOD Saples					
Figure	Group			Total β-cell	Ki67(+)β-cell
Suppl. 10 B	Control	3 cases		1671.0 \pm 331.3	0.3 \pm 0.3
	Pregnant	4 cases		1925.7 \pm 504.9	1.0 \pm 0.4
	T2D	3 cases		1888.0 \pm 187.2	0 \pm 0