

**Additional data file 1.**

Days	Secreted insulin by hislets (mean $\pm$ SD; ng/mg protein content)			
	CTRL (n=4)		hPL (n=4)	
	0 mM glucose	25mM glucose	0 mM glucose	25mM glucose
2	0.50 $\pm$ 0.2	1.00 $\pm$ 0.1	0.42 $\pm$ 0.2	7.6 $\pm$ 4.0
4	0.51 $\pm$ 0.3	0.91 $\pm$ 0.2	0.72 $\pm$ 0.5	4.8 $\pm$ 3.2
8	0.33 $\pm$ 0.1	1.04 $\pm$ 1.2	0.55 $\pm$ 0.1	1.2 $\pm$ 0.8
14	0.88 $\pm$ 0.3	5.10 $\pm$ 0.8	0.47 $\pm$ 0.8	4.7 $\pm$ 0.4

**Secreted insulin before and after glucose challenge.** After 2, 4, 8, and 14 days of treatment both CTRL and hPL-treated human cultured islets were challenged with 25 mM glucose. Insulin secretion was assayed before and after glucose stimulation by RIA. Secreted insulin values were normalized by protein concentration.