SUPPLEMENTARY DATA

Supplementary Table 1. Stereology of subcellular compartments in β-cells from control mice versus *ABCA1*$^{-P/-P}$ mice. Compartments are expressed as a relative % of the cytoplasm. Differences between control and *ABCA1*$^{-P/-P}$ mice are statistically non-significant.

Genotype	Glucose concentration culture medium (mM)	Number of islets analyzed, n	Mature insulin granules (%Vv)	Mitochondria (% Vv)	Lytic /autophagic compartment (% Vv)
ABCA1$^{+/+}$	6	3	8.50±1.67	8.82±1.21	0.13±0.06
ABCA1$^{-P/-P}$	6	3	10.27±2.18	10.35±0.80	0.34±0.10
ABCA1$^{+/+}$	11	3	2.83±0.72	9.15±0.32	0.30±0.16
ABCA1$^{-P/-P}$	11	3	4.57±0.81	11.00±0.50	0.26±0.09

Supplementary Figure 1. Significant changes in β cell ultrastructure accompany the loss of *ABCA1* in β cells. (A) β-cells in islets isolated from *ABCA1*$^{+/+}$ mice reflected the general hallmarks of normal compartmental organization of the insulin secretory pathway. The mature insulin granules were generally uniform in size and appearance. (B) Lack of *ABCA1* in β-cells resulted in a marked increase in the extent of heterogeneity for both size and morphology of insulin granules. GA, Golgi apparatus; M, mitochondrion; N, nucleus; PM, plasma membrane. Bars, 20 μm (A); 2 μm (B).