

Legend to supplementary figures:

Supplementary figure S1: 14 weeks-old *Panx1*^{-/-} mice have increased activity and anaerobic metabolism. (A) Body weight of WT (in black) and *Panx1*^{-/-} (in red) mice was measured from the age of 6 to 14 weeks. (B) Ambulatory, (C) fine and (D) total activity as well as (H) the VO₂ and (I) the VCO₂ were measured by indirect calorimetry on 14 weeks-old wild-type (WT; in black) and *Panx1*^{-/-} mice (in red). Mice were housed by two per cage. Each cage was considered as one pooled sample (N=3). (E) Representative images of small intestines from WT and *Panx1*^{-/-} mice and quantification of small intestine (F) and colon (G) lengths. Data are shown as individual data points, except for time lines where the number of mice is specified, and expressed as mean ± SEM. * $p \leq 0.05$, and † $p \leq 0.001$.

Supplementary figure S2: The activity of 20 weeks-old *Panx1*^{-/-} mice is increased. (A) Lean mass of WT (black dots) and *Panx1*^{-/-} mice (red dots) housed at 22°C. (B) Ambulatory, (C) fine and (D) total activity as well as (H) the VO₂ and (I) the VCO₂ were measured by indirect calorimetry. Mice were housed two per cage. Each cage was considered as one pooled sample (N=3). (E) Representative images of small intestines from WT and *Panx1*^{-/-} mice and quantification of small intestine (F) and colon (G) lengths. Data are shown as individual data points, except for time lines where the number of mice is specified, and expressed as mean ± SEM. † $p \leq 0.01$.

Supplementary figure S3: Cold exposure increases the activity level of 20 weeks-old *Panx1*^{-/-} mice.

Body temperatures of WT (in black) and *Panx1*^{-/-} mice (in red) during (A) the week of acclimatization to 14°C and (B) the first 72 hours of exposure to 6°C. (C) Lean mass

of WT (black dots) and *Panx1*^{-/-} mice (red dots) housed at 6°C. **(D)** Ambulatory, **(E)** fine and **(F)** total activity as well as **(J)** the VO₂ and **(K)** the VCO₂ were measured by indirect calorimetry in WT and *Panx1*^{-/-} mice. Mice were housed two per cage. Each cage was considered as one pooled sample (N=3). **(G)** Representative images of small intestines from WT and *Panx1*^{-/-} mice and quantification of small intestine **(H)** and colon **(I)** lengths. * $p \leq 0.05$ and † $p \leq 0.01$.