Supplement Figure Legends

S1. FoxO knockout mice. A. Relative level of FoxO1, FoxO3 and FoxO4 mRNA transcripts in liver. (Relates to Figs 1C and 1F). The relative level of mRNA transcripts for FoxO1, FoxO3 and FoxO4 was determined by quantitative PCR using cDNA products of PCR reactions for FoxO1, FoxO3 and FoxO4 to establish copy number. FoxO1 transcripts are ~10X and ~100X more abundant than transcripts coding for FoxO3 and FoxO4 transcripts, respectively (n = 4). **B-C. FoxO1 and FoxO3 mRNA and protein levels** are markedly reduced in FoxO KO mice compared to floxed controls. FoxO4 protein was not detected by western blot in either FoxO floxed or KO mice (n = 4). (Relates to Figs 1C and 1F). Statistical significance ($P<0.05$) was determined by Student's t test (*). Mean ± SEM.

S2. ATGL mRNA levels in adipose tissue. ATGL mRNA levels in white adipose tissue (WAT) from WT and FoxO1 Tgn mice 7 d after tail vein injection with adenovirus expressing ATGL shRNA (open bars) or control/scrambled shRNA (solid bars) (n = 4-5). (Relates to Figs 3A-B). Statistical significance ($P<0.05$) was determined by ANOVA, where bars with unlike letters differ. Mean ± SEM.

S3. Effect of G0S2 expression in WT and Tgn mice. A-B. Lipid levels. Serum levels of TAG (**A**) or cholesterol (**B**) were measured in refed WT and FoxO1 Tgn mice 7 d after tail vein injection with adenovirus expressing G0S2 (cross-hatched bars), ATGL shRNA (open bars) or control adenovirus expressing GFP and scrambled/control shRNA (solid bars) (n = 4). **C-D. Gene expression.** (Relates to Figs 4F-G and 5F). Relative mRNA levels of genes involved in promoting glycolysis and/or lipogenesis (C) or in promoting gluconeogenesis (D) were measured in liver of refed WT and Tgn mice 7 d after adenovirus treatment (n = 4). (Figs S3A-B relate to Figs 4A-B. Fig S3C relates to Figs 4F-G and 5F. Fig S3D relates for Fig 5F). Statistical significance ($P<0.05$) was determined ANOVA, where bars with unlike letters differ. Mean ± SEM.

S4. Etomoxir (Etx) treatment. A. β-hydroxybutyrate (BHB) levels in 4-hr fasted mice. (Relates to Figs 4E). Plasma levels of BHB in 4-hr fasted WT and Tgn mice 30 min after intraperitoneal injection with Etx (3 mg/kg i.p.) (open bars) or phosphate buffered saline (solid bars) (n = 4). **B. Effect of Etx on BHB levels in 18-hr fasted mice.** Plasma levels of BHB in 18-hr fasted WT mice were rapidly suppressed following treatment with 3 (open squares) or 10 (open triangles) mg/kg Etx compared to PBS treated controls (solid triangles). Levels of BHB began to rise 4 hr after treatment with 3 mg/kg Etx, but remained suppressed for at least 6 hr after treatment with 10 mg/kg Etx (n = 4). **C. Weight gain after refeeding in WT and Tgn mice treated w/wo etomoxir.** To ensure that treatment with Etx did not interfere with food intake, change in weight was measured before and after 18-hr fasted Wt and Tgn mice were refed. Fasted mice were weighed, and then allowed to refeed for 1 hr before being treated with Etx (10 mg/kg i.p.) (open bars) or PBS (solid bars). Mice were provided continued access to chow and were re-weighed 5 hr later just before they were sacrificed, and change in weight, which reflects food intake, was determined. Treatment with Etx did not impair food intake in WT or Tgn mice (n = 4). **D. TAG levels in Tgn and WT mice treated w/wo etoxomir.** (Relates to Figs Serum TAG levels were suppressed in refed Tgn vs. WT mice, and treatment with Etx did not reverse this effect (n = 4). **E. Gene expression in refed mice treated w/wo etomoxir.** Relative mRNA levels for glycolytic (Gck, L-PK), lipogenic (SREBP-1c, SCD-1) genes were suppressed. PEPCK mRNA levels were increased in Tgn vs. WT mice, and treatment with Etx did not disrupt these effects on gene expression. (Fig S4A relates to Fig 4E. Figs S4B-E relate to Figs 4F-G and 5F). Statistical significance ($P<0.05$) was determined by ANOVA, where bars with unlike letters differ. Mean $\pm$ SEM.