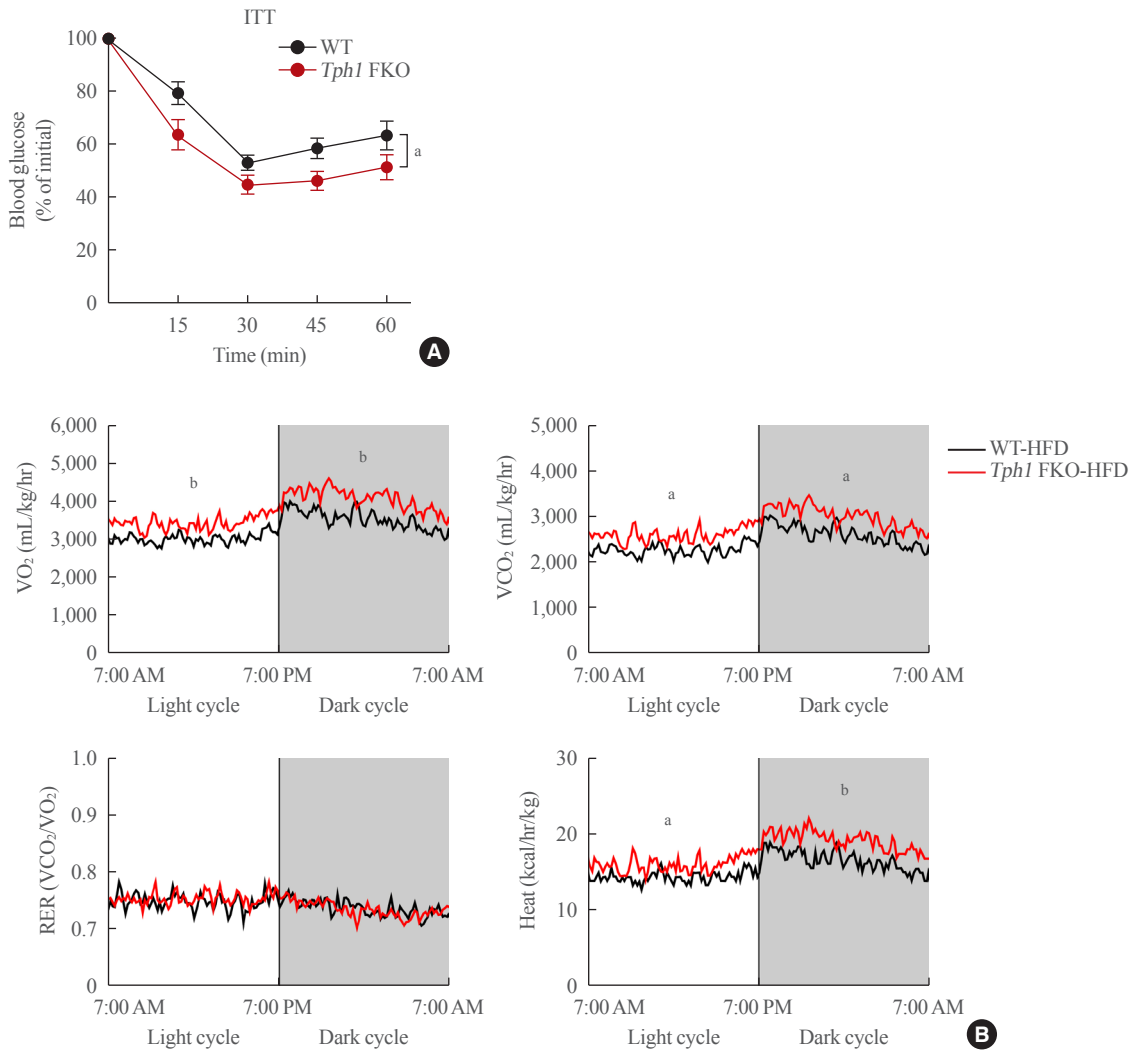
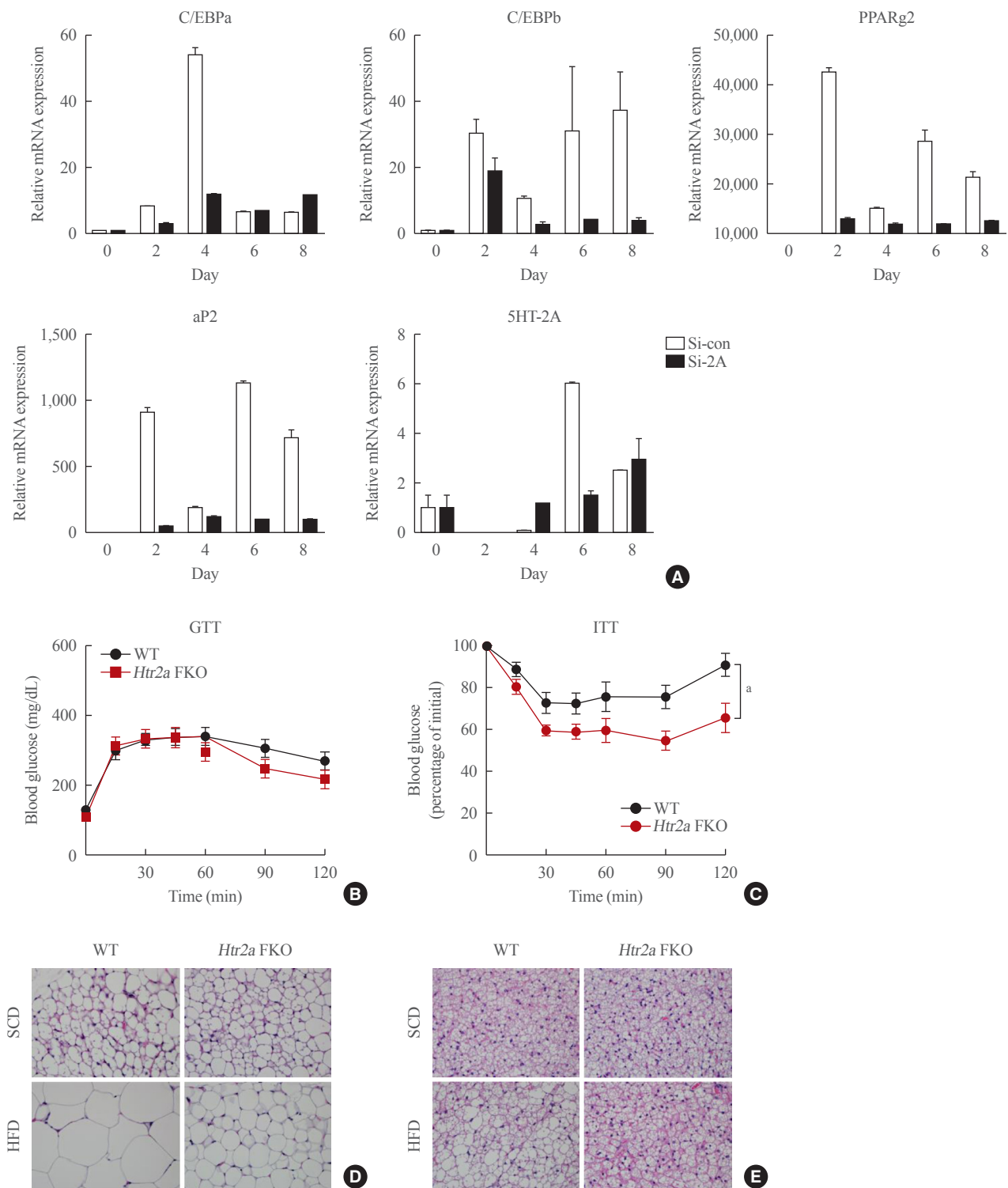


Supplemental Fig. S1. (A) Experimental design for high-fat diet (HFD), Network Meta-Analysis, glucose tolerance test and sampling at the indicated age. (B) Body fat and lean body mass upon standard chow diet (SCD) in wild type (WT) and tryptophan hydroxylase 1 (*Tph1*) knockout (FKO) mice. (C, D) Gross appearance (C) and tissue weight (D) of inguinal white adipose tissue (iWAT), epididymal white adipose tissue (eWAT), and brown adipose tissue (BAT) of mice on SCD; $n=5$ in each group. (E) Metabolic parameters of WT and *Tph1* FKO mice fed SCD. NMR, nuclear magnetic resonance; GTT, glucose tolerance test; RER, respiratory exchange ratio. ^a $P < 0.05$; ^b $P < 0.01$; ^c $P < 0.001$ indicated significance.



Supplemental Fig. S2. (A) Insulin tolerance test (ITT) of wild type (WT) and tryptophan hydroxylase 1 (*Tph1*) knockout (FKO) mice fed high-fat diet (HFD). (B) Metabolic parameters of WT and *Tph1* FKO mice fed HFD. RER, respiratory exchange ratio. ^a $P < 0.05$; ^b $P < 0.01$ indicated significance.



Supplemental Fig. S3. (A) mRNA expression level of adipocyte differentiation markers (*C/EBPa*, *C/EBPb*, *PPARg2*, *aP2*) and *5-HT2A*. (B, C) Glucose tolerance test (B) and insulin tolerance test (C) in wild type (WT) and adipose tissue-specific serotonin receptor 2A (*Htr2a*) FKO mice fed high-fat diet (HFD). (D, E) Representative H&E staining images of inguinal white adipose tissue (iWAT) (D) and brown white adipose tissue (BAT) (E) from mice fed standard chow diet (SCD) or HFD for 12 weeks. *C/EBPa*, CCAAT/enhancer-binding protein alpha; *C/EBPb*, CCAAT enhancer binding protein beta; *PPARg2*, peroxisome proliferator-activated receptor-gamma 2; *aP2*, adipocyte protein 2; *5-HT2A*, 5-hydroxytryptamine receptor 2A; GTT, glucose tolerance test; ITT, insulin tolerance test. ^a*P*<0.05 indicated significance.