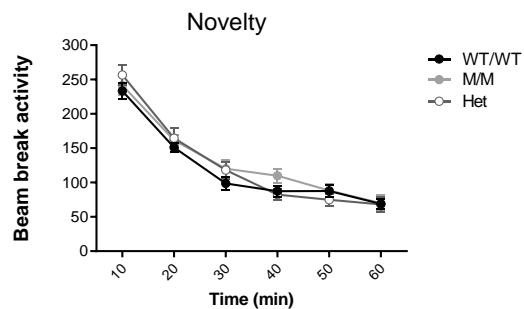
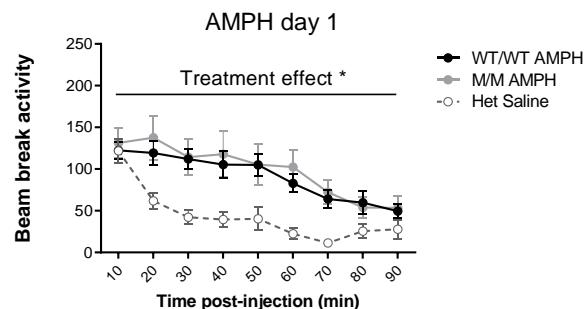
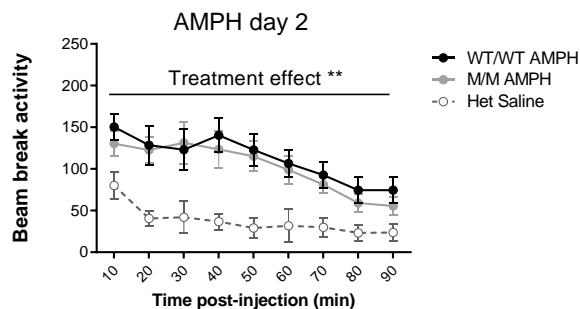
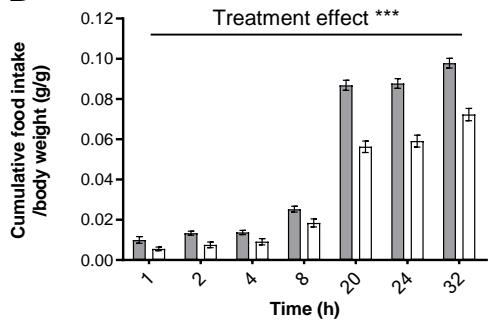
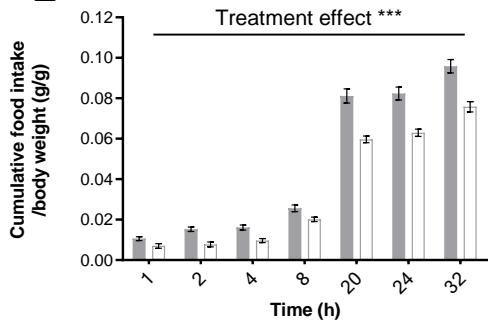
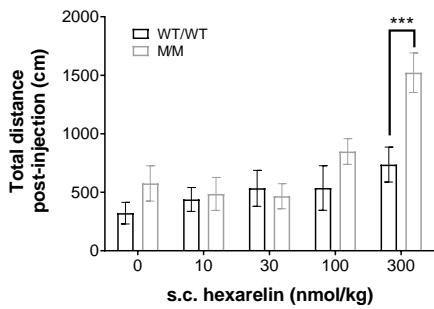
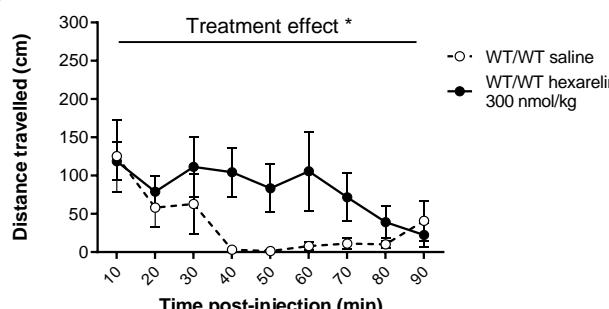
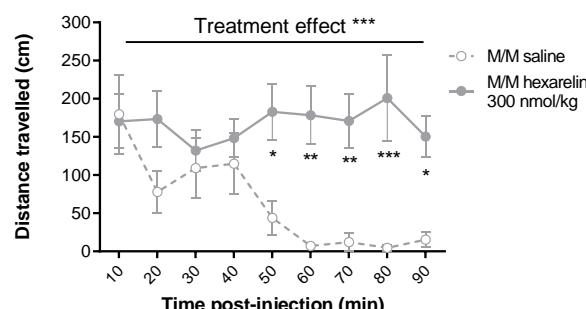


A**B****C****D****E****F****G****H****Figure 1**

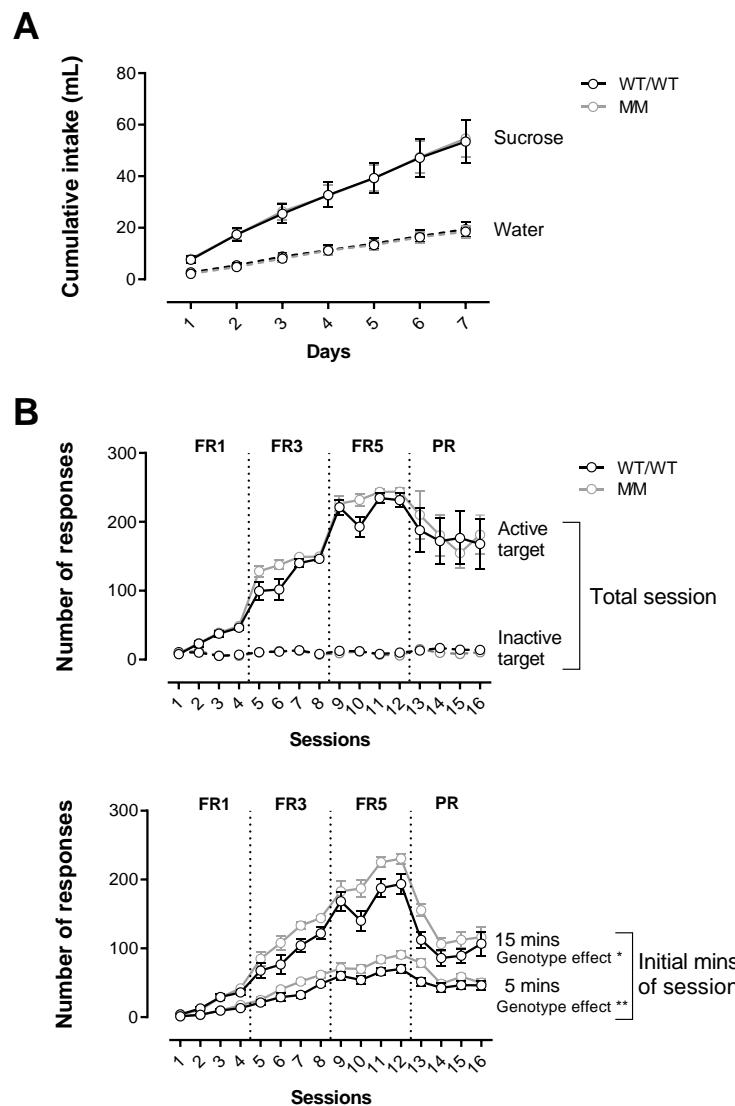
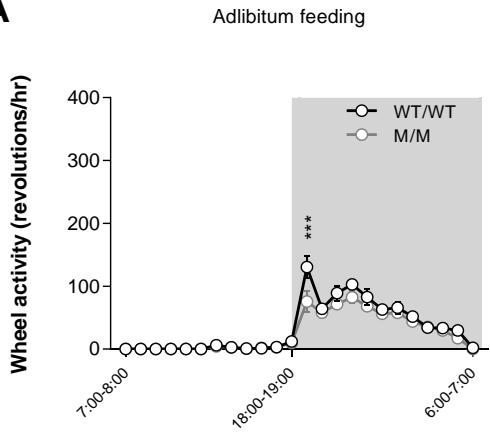
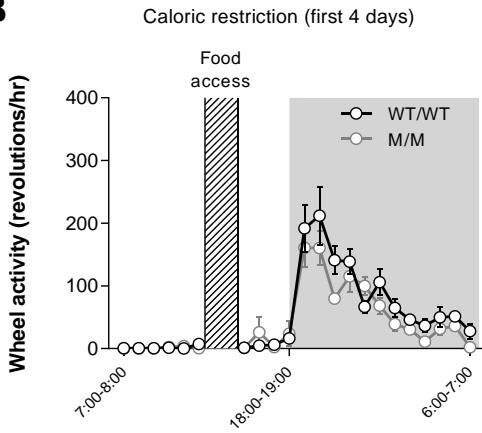
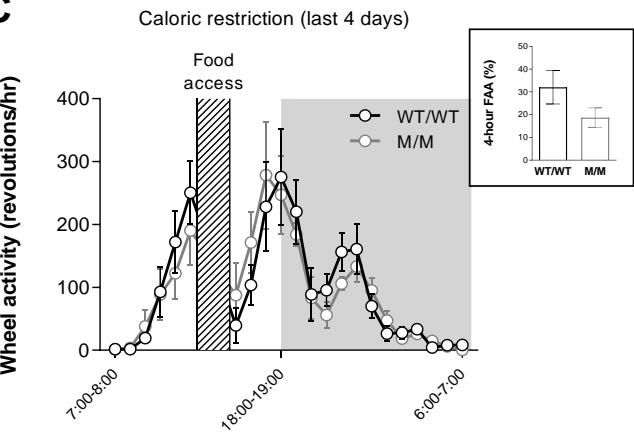
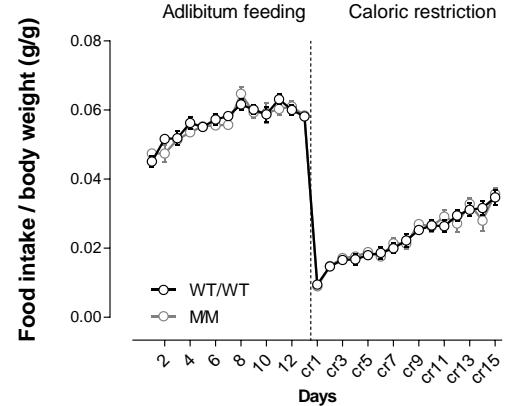
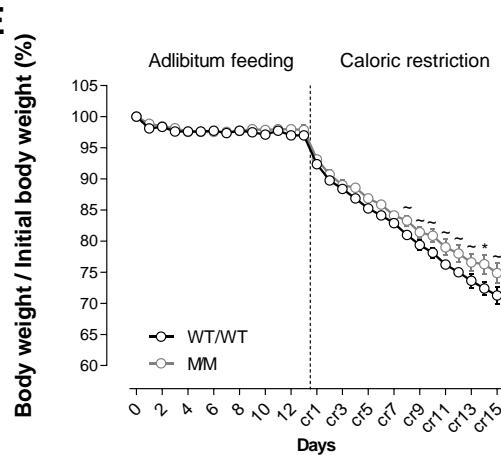
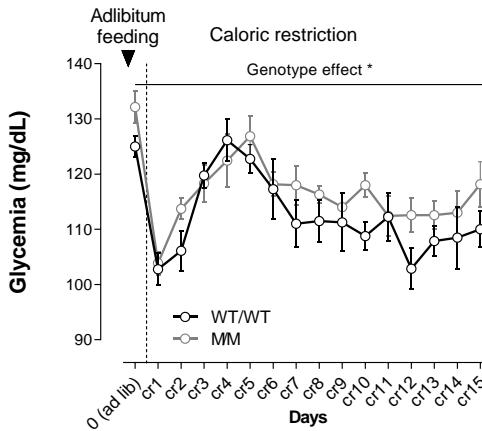
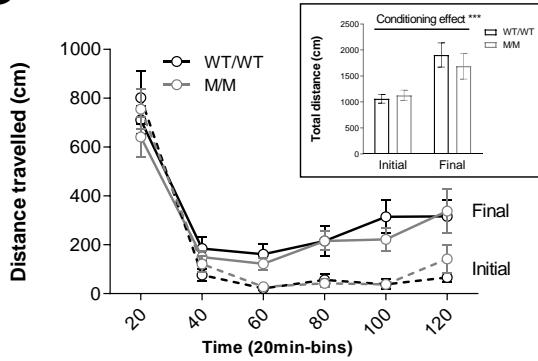
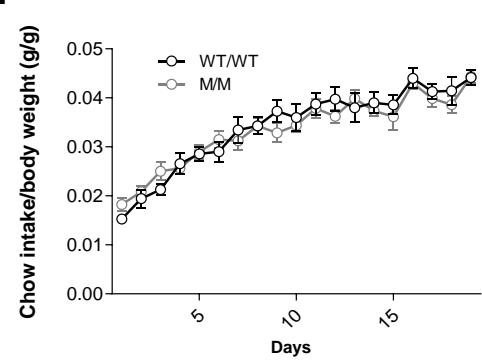
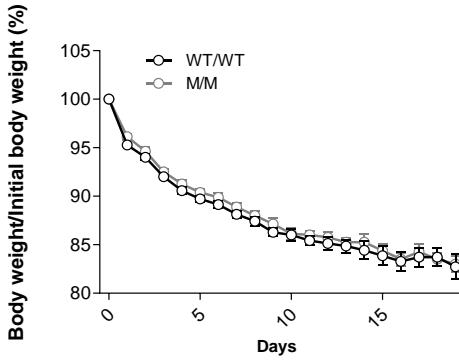
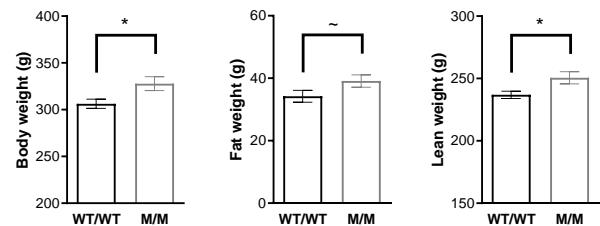
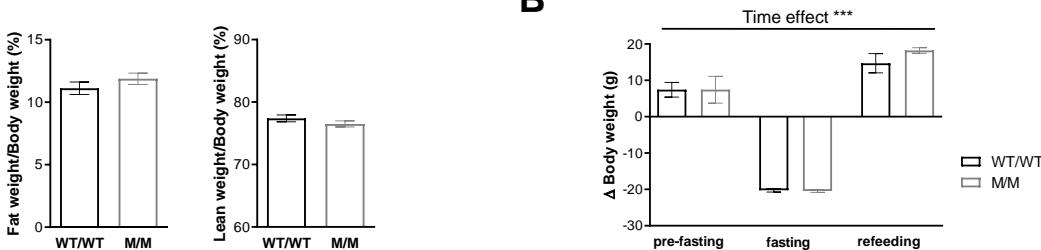
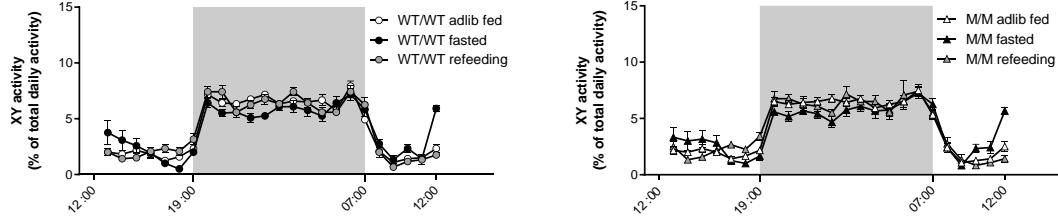
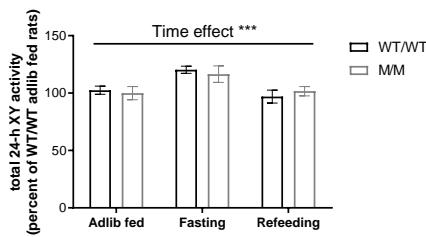
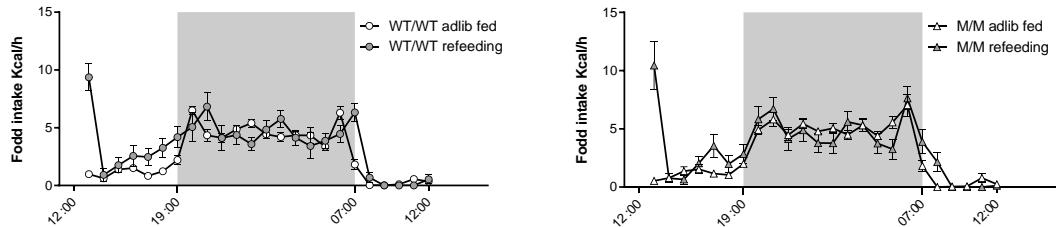
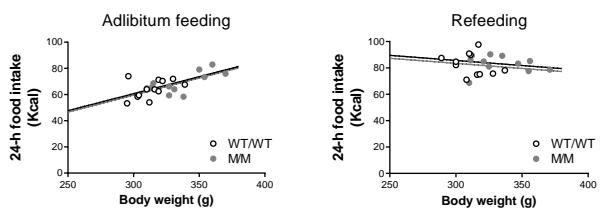
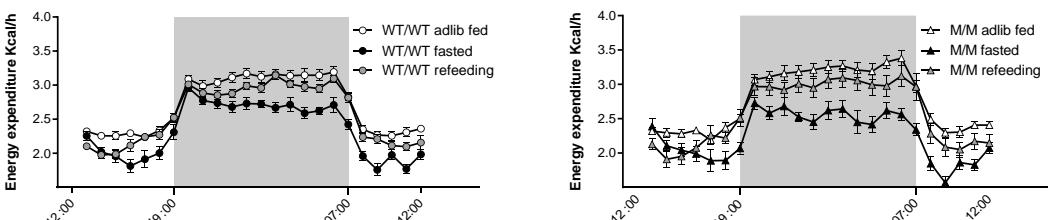
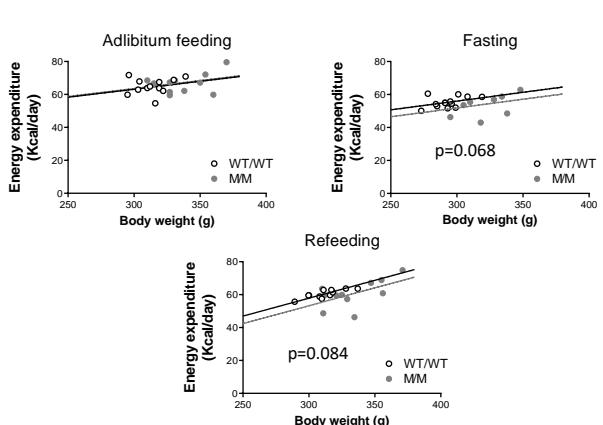


Figure 2

A**B****C****D****E****F****G****H****I****Figure 3**

A**B****C****D****E****F****G****H****Figure 4**

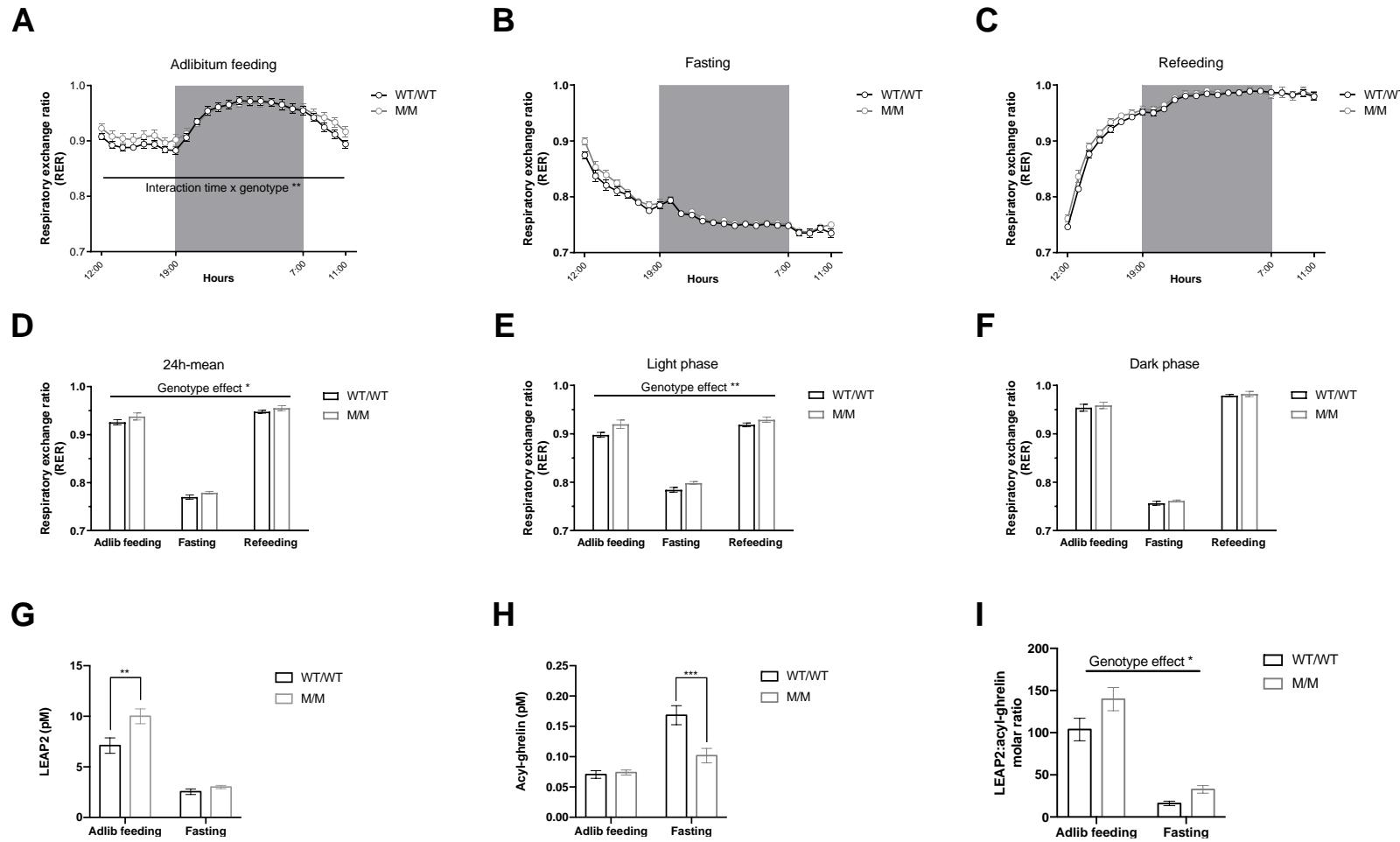
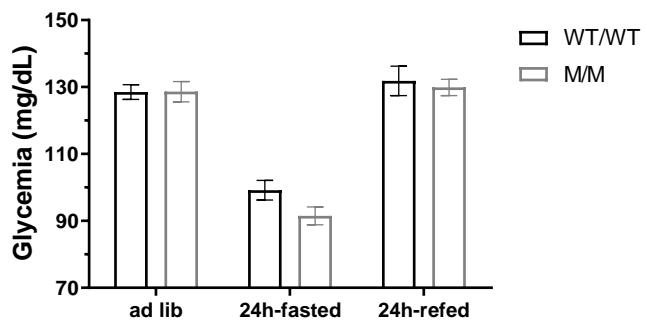
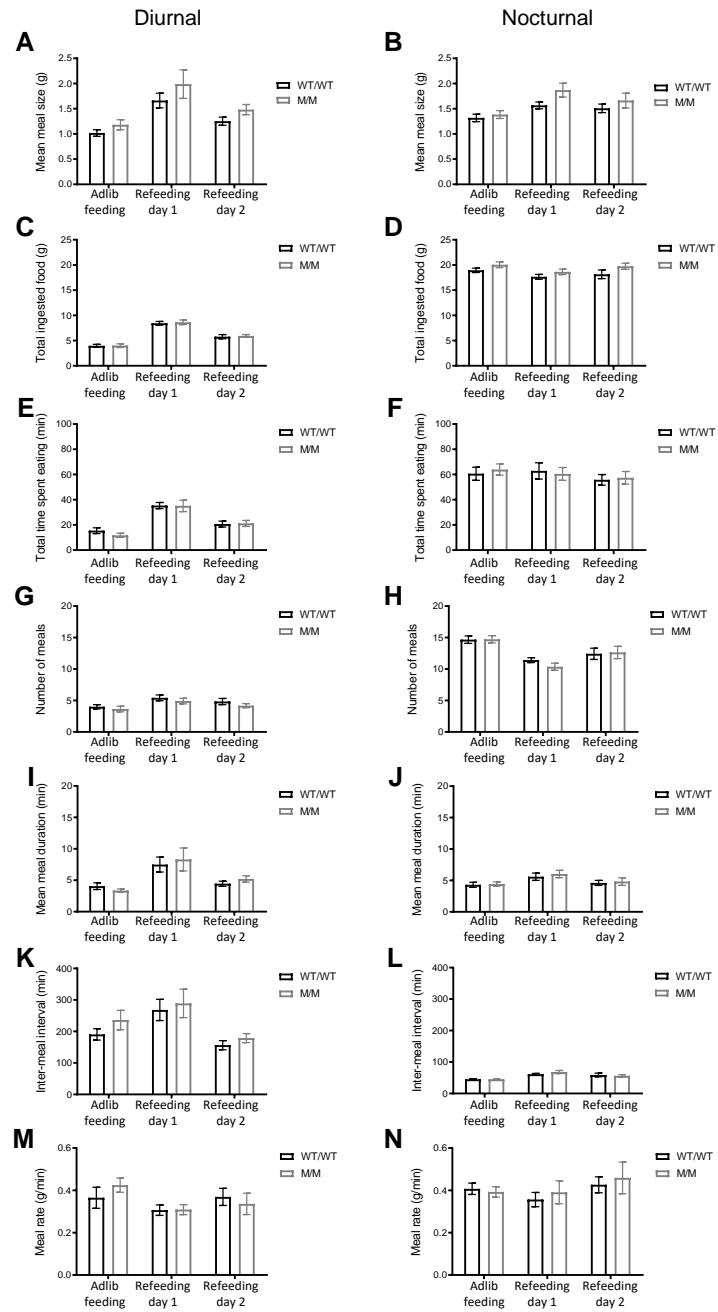


Figure 5



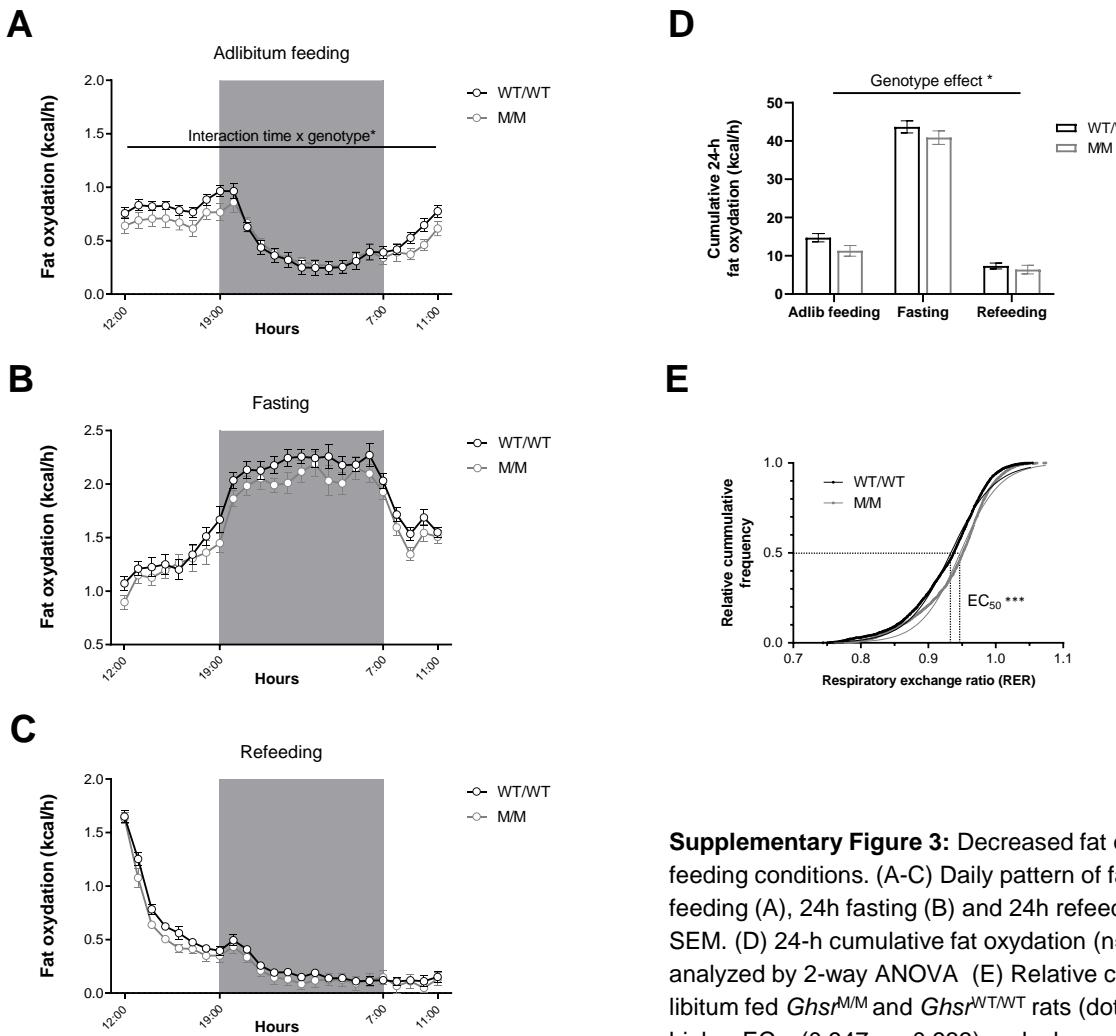
Supplementary Figure 1: Glycemia fluctuations across feeding conditions. $Ghsr^{M/M}$ and $Ghsr^{WT/WT}$ male rats at 15 weeks of age (n=6-8/genotype). Data represent mean \pm SEM.

Supplemental Figure 2



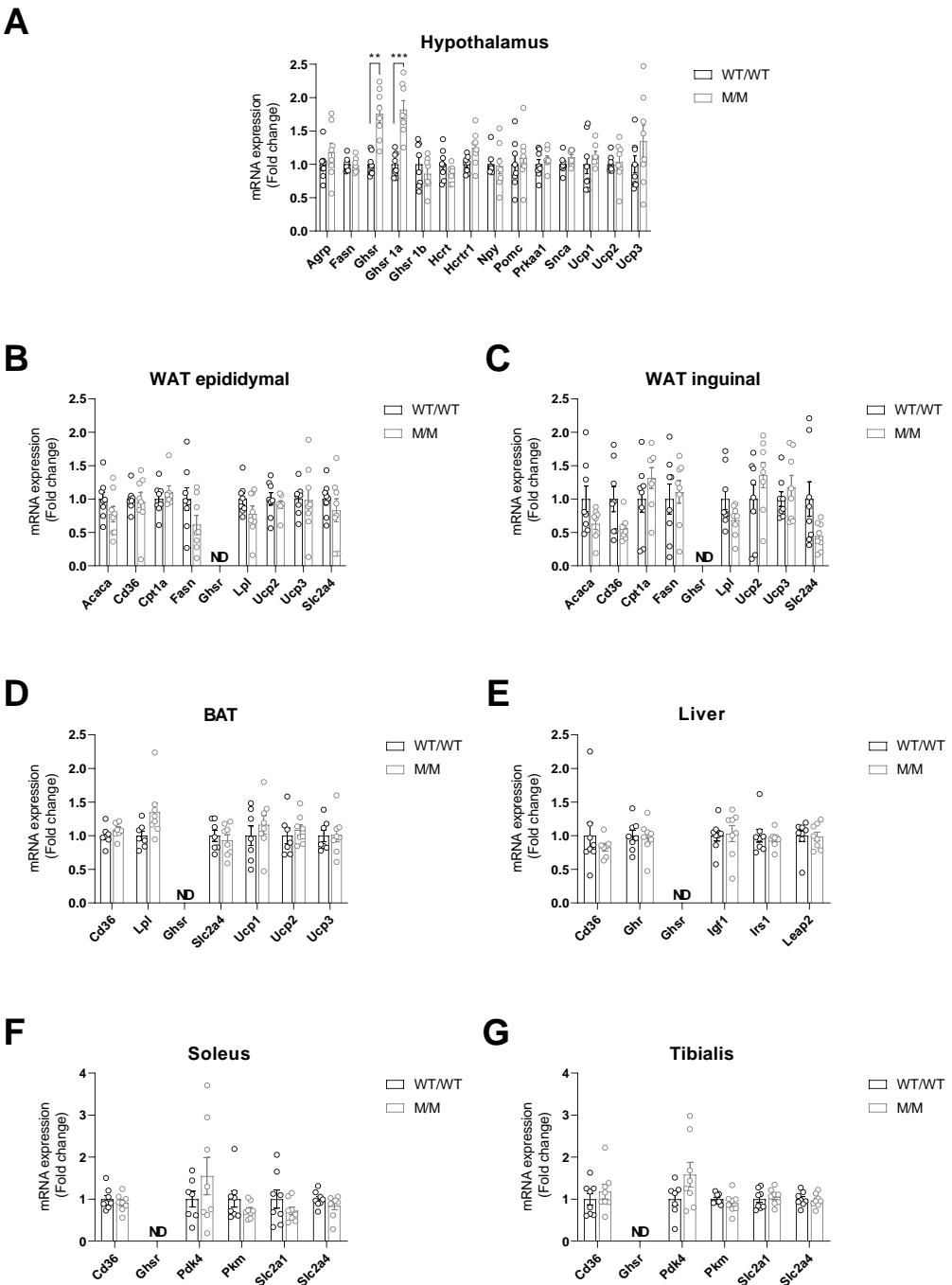
Supplementary Figure 2: Diurnal and nocturnal meal patterns of *Ghsr*^{MM} and *Ghsr*^{WT/WT} rats during ad libitum-feeding and refeeding. (A-B) Mean meal size during light (A) and dark (B) phases. (C-D) Total chow ingested during light (C) and dark (D) phases. (E-F) Total time spent eating during light (E) and dark (F) phases. (G-H) Number of meals during light (G) and dark (H) phases. (I-J) Mean meal duration in light (I) and dark (J) phases. (K-L) Inter-meal interval during light (K) and dark (L) phases. (M-N) Meal ingestion rate in light (M) and dark (N) phases (n=12/genotype). Data represent mean \pm SEM.

Supplemental Figure 3



Supplementary Figure 3: Decreased fat oxidation in *Ghsr*^{MM} rats across feeding conditions. (A-C) Daily pattern of fat oxidation during ad libitum feeding (A), 24h fasting (B) and 24h refeeding (C). Data represent mean \pm SEM. (D) 24-h cumulative fat oxidation ($n=12/\text{genotype}$). Data were analyzed by 2-way ANOVA. (E) Relative cumulative frequency curves for ad libitum fed *Ghsr*^{MM} and *Ghsr*^{WT/WT} rats (dots) and curve fits (full lines) reveal higher EC₅₀ (0.947 vs. 0.933) and a lower 1/Hill slope value (0.067 vs. 0.074) for *Ghsr*^{MM} rats compared to *Ghsr*^{WT/WT} rats (F-test; $p<0.001$ for both parameters). * $p<0.05$; *** $p<0.001$.

Supplemental Figure 4



Supplementary Figure 4: mRNA expression of known markers of energy homeostasis, adiposity and glucose homeostasis in GhsrM/M and GhsrWT/WT rats in the hypothalamus and in peripheral tissues. Hypothalamus (A), epididymal white adipose tissue (B), inguinal white adipose tissue (C), brown adipose tissue (D), liver (E), soleus muscle (F) and tibialis muscle (G). Data represent mean \pm SEM. Data were analyzed by multiple Mann-Whitney tests using adjusted p values. ** $p < 0.01$; *** $p < 0.001$; ND, not detectable.