Supplemental Figure Legends

Supplemental Figure 1. D-KO mice have increased GH and GHRH expression.

Expression of growth hormone gene was measured in pituitary gland in GHRH-KO, GHR-KO,

D-KO and WT mice. Expression of growth hormone releasing hormone gene was measured in

hypothalamus in GHRH-KO, GHR-KO, D-KO and WT mice. For all biological groups n=8.

Each bar represents means. Statistical analysis was performed with one-way ANOVA with

Benjamini and Hochberg false discovery rate (FDR); different letters denote significant

difference at $P < 0.05$.

Supplemental Figure 2. D-KO mice have altered body composition parameters.

Body composition parameters: BMD (A), BMC (B), lean mass (C) and fat mass (D) were

measured by DXA. WT n=12, D-KO n=11. Each bar represents mean ± SEM. Statistical

analysis was performed by unpaired Student's t-test with Welch's correction; ns= not

significant, ***p<0.001, ****p<0.0001.

Supplemental Figure 3. Physical activity in D-KO mice. Locomotor activity (A) and ambulatory

*activity (B) of WT and D-KO mice during a period of 6 days are shown. WT n=11, KO n=12.*

Averaged locomotor activity (C, D) and ambulatory activity (E, F) are shown as light (C, E) and

dark (D, F) cycles for WT and D-KO mice. Each bar represents mean ± SEM. Statistical analysis

was performed with unpaired Student's t-test with Welch's correction; ns= not significant,

**p<0.01, c; ***p<0.001.

Supplemental Figure 4. Longevity of D-KO mice. Kaplan-Meier survival curves for each
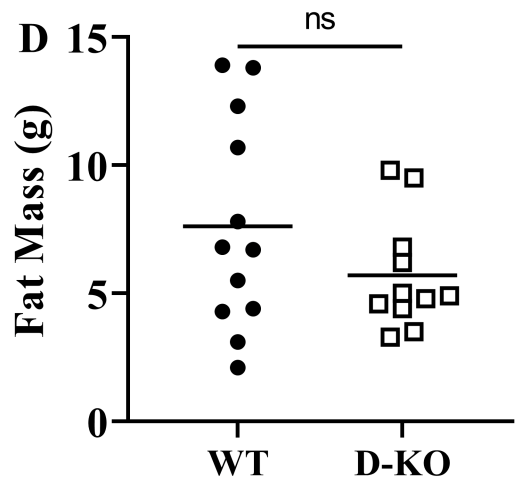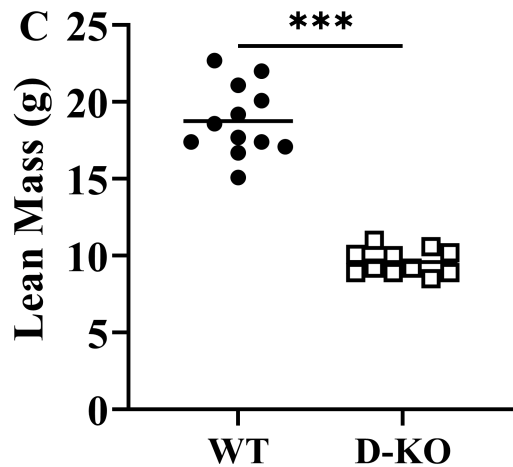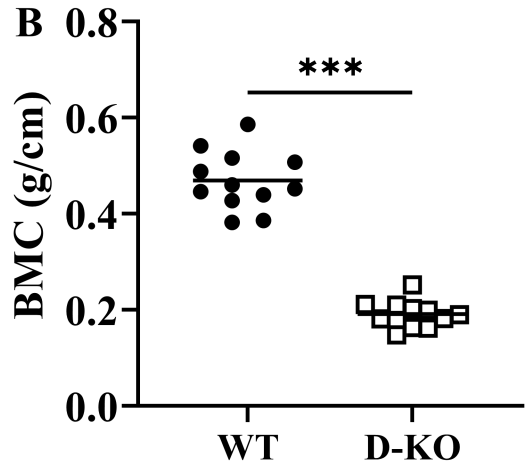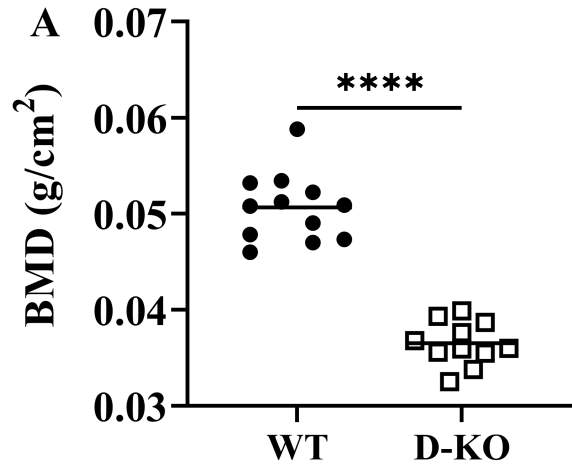
genotype: D-KO (red) and WT (black) mice. WT n=28, D-KO n=24.

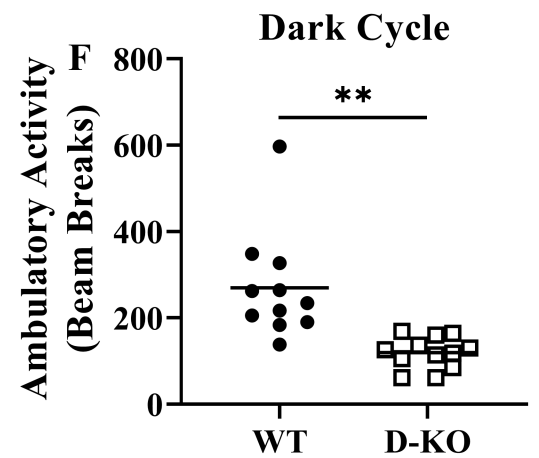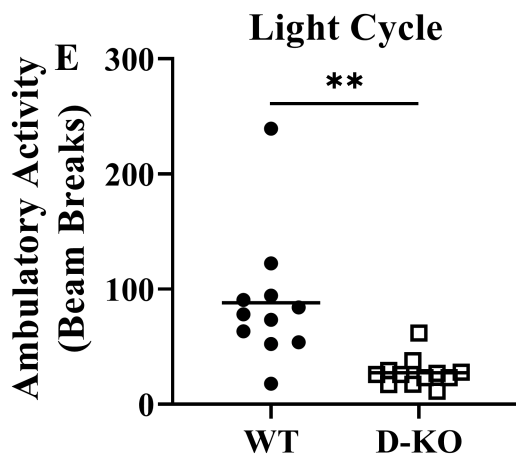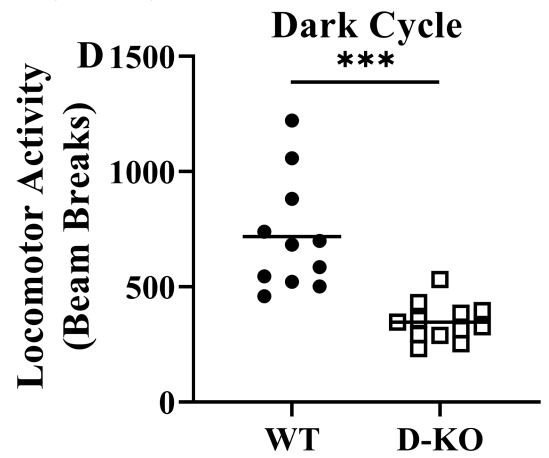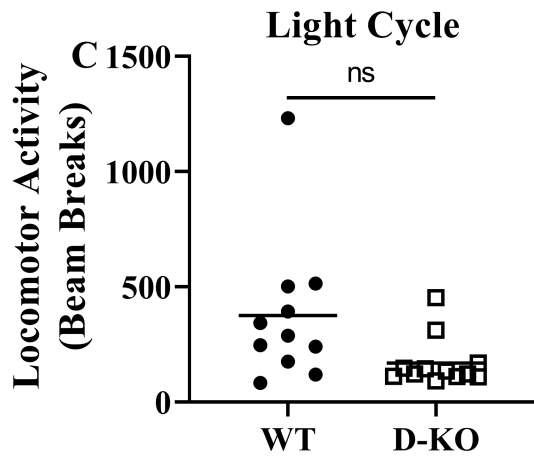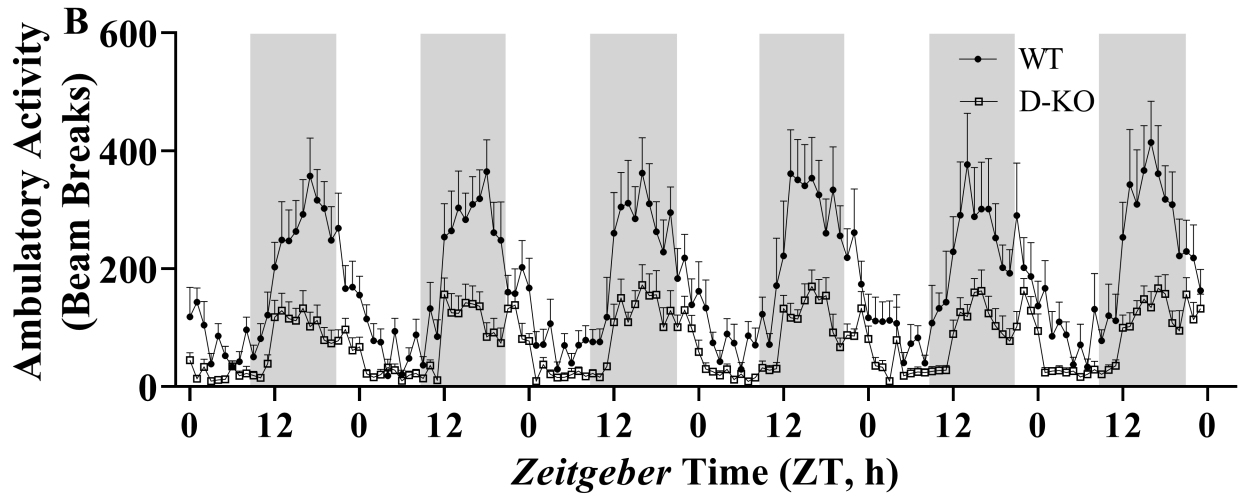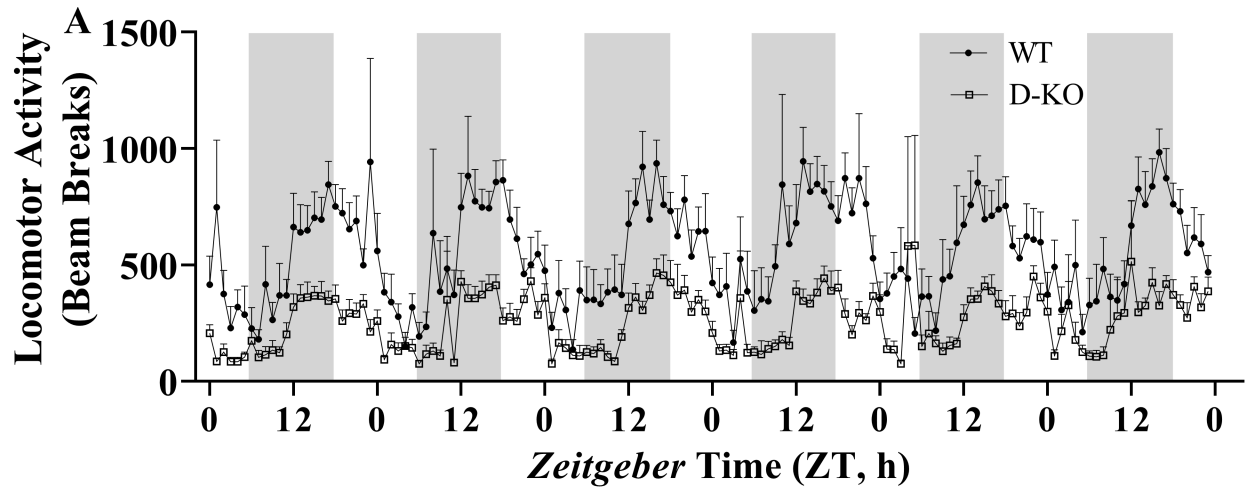**Supplemental Figure 1**
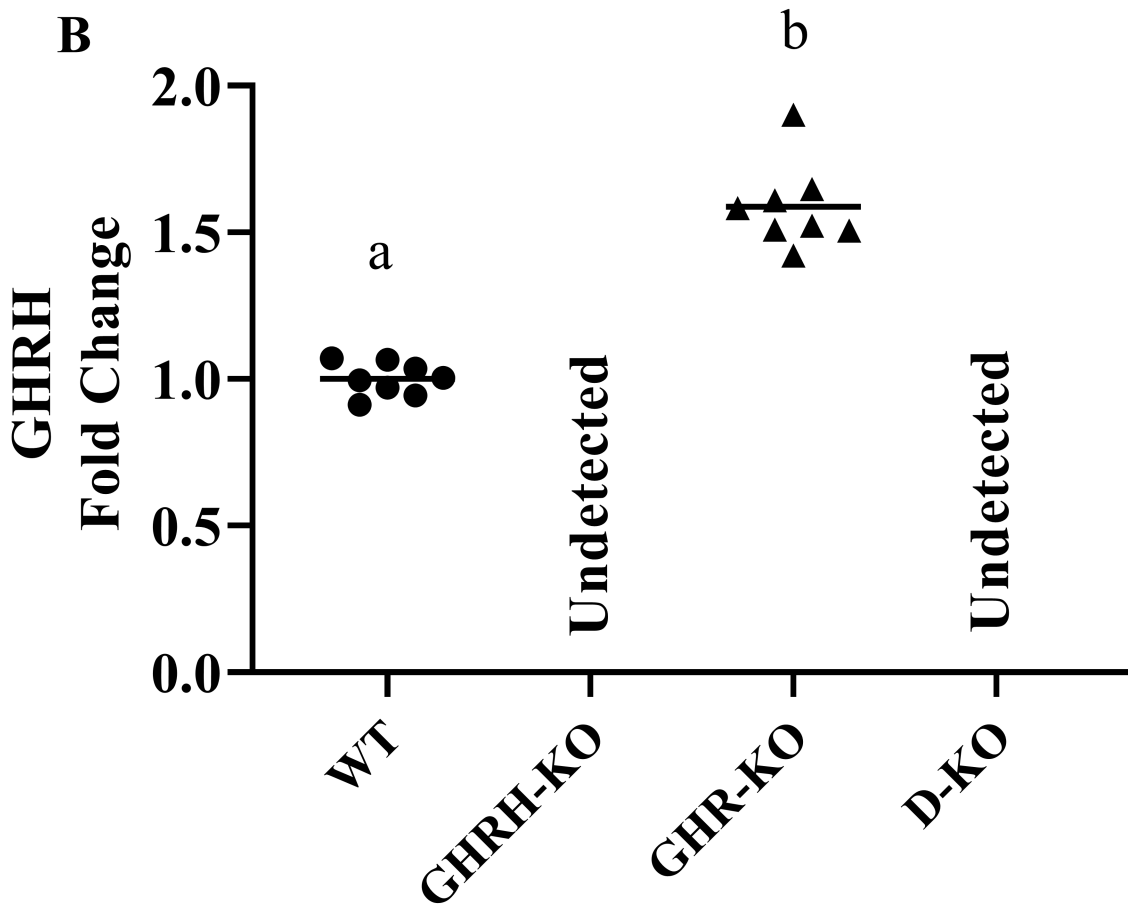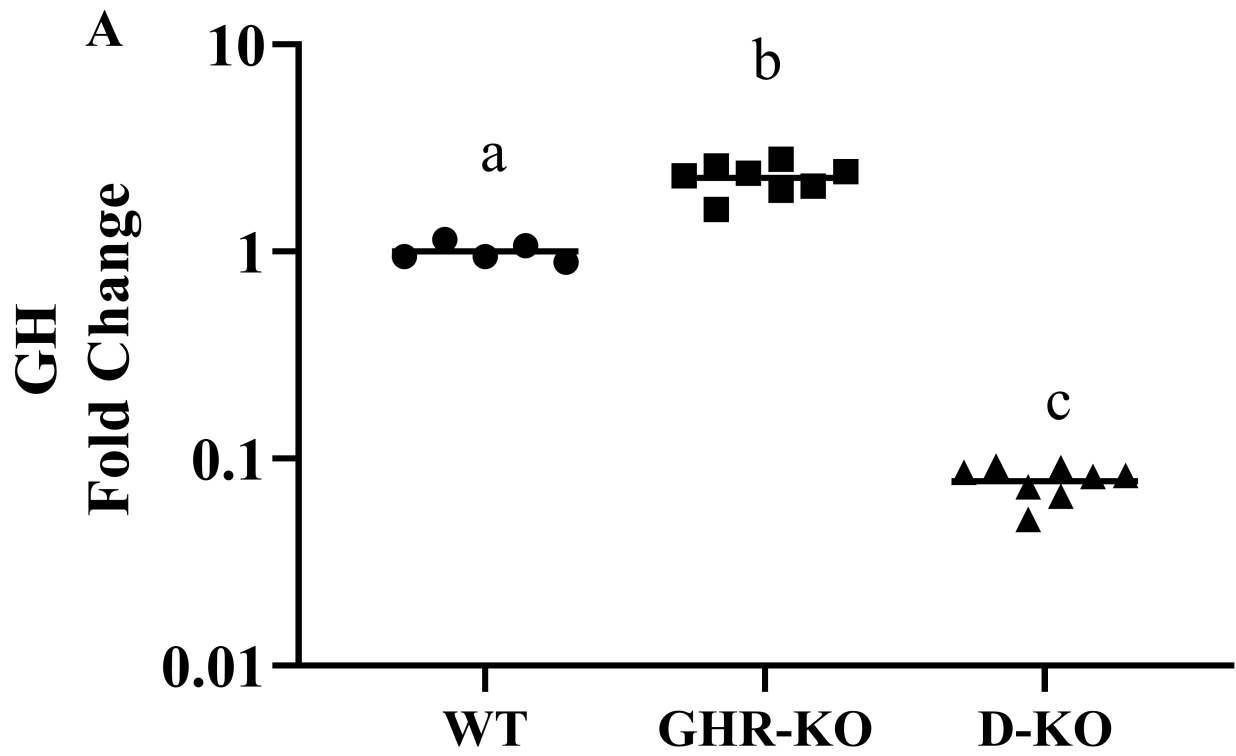
Supplemental Figure 2

Supplemental Figure 3

Supplemental Figure 4