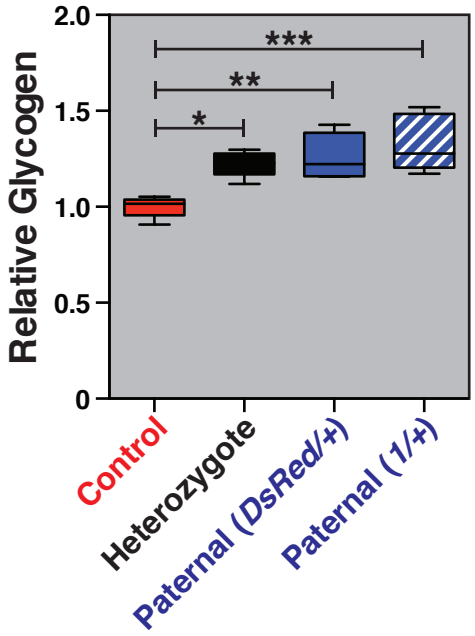
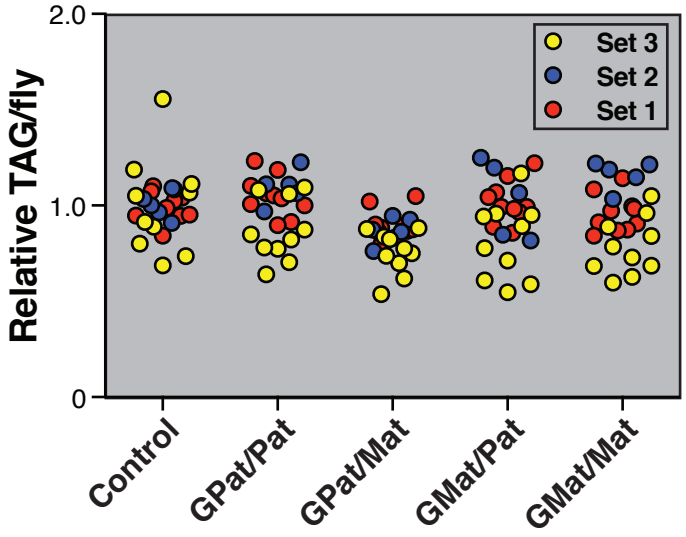


Supplementary Figure 1: Defects in F1 heterozygotes are independent of the *AKHR* allele. Glycogen levels were determined in F1 progeny from wild-type (red), *AKHR* –/+ heterozygous (black), or obese paternal mutant parents (blue and blue striped). Heterozygote controls are $AKHR^{DsRed}$/+, while heterozygotes descended from obese parents are either $AKHR^{DsRed}$/+ (blue) or $AKHR^{1}$/+ (blue striped). Extracts were prepared at approximately 10 days of adult age (n=5/each). All *AKHR* heterozygotes have significantly elevated glycogen when compared to controls. Comparisons among inheritance lines were performed using one-way ANOVA and Sidak's multiple comparisons test. Brackets are present to indicate the two samples being compared for the p-value presented. *p<0.05, **p<0.01, ***p<0.001.



Supplementary Figure 2: Reduced triglycerides in F2 progeny are reproducible.
Relative triglyceride levels from Figure 5D, with independent biological replicates indicated by the individual points on the graph. Measurements that were obtained from the first experimental replicate (Set 1) are shown in red, those from the second experimental replicate (Set 2) are shown in blue, and those from the third experimental replicate (Set 3) are shown in yellow. The reduced triglycerides in F2 progeny with a grandpaternal/maternal pattern of inheritance, relative to controls, is reproducible.