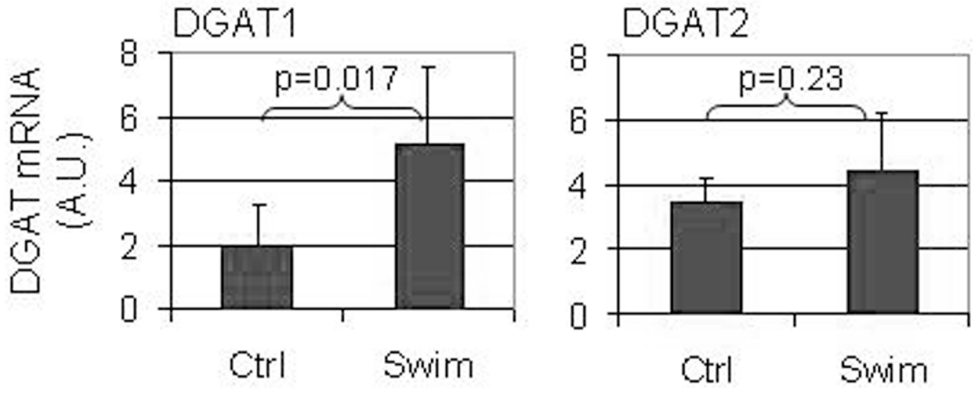
Supplemental Figure 1. Exercise induces DGAT1 mRNA expression in skeletal muscle. Realtime PCR quantification of mRNA levels for DGAT1 (**A**) and DGAT2 (**B**) in soleus muscles isolated from 3 month-old male mice after one week swimming training (n=6), as compared with age-, gender-, and diet-matched sedentary mice (Ctrl; n=6). *, $p<0.05$.

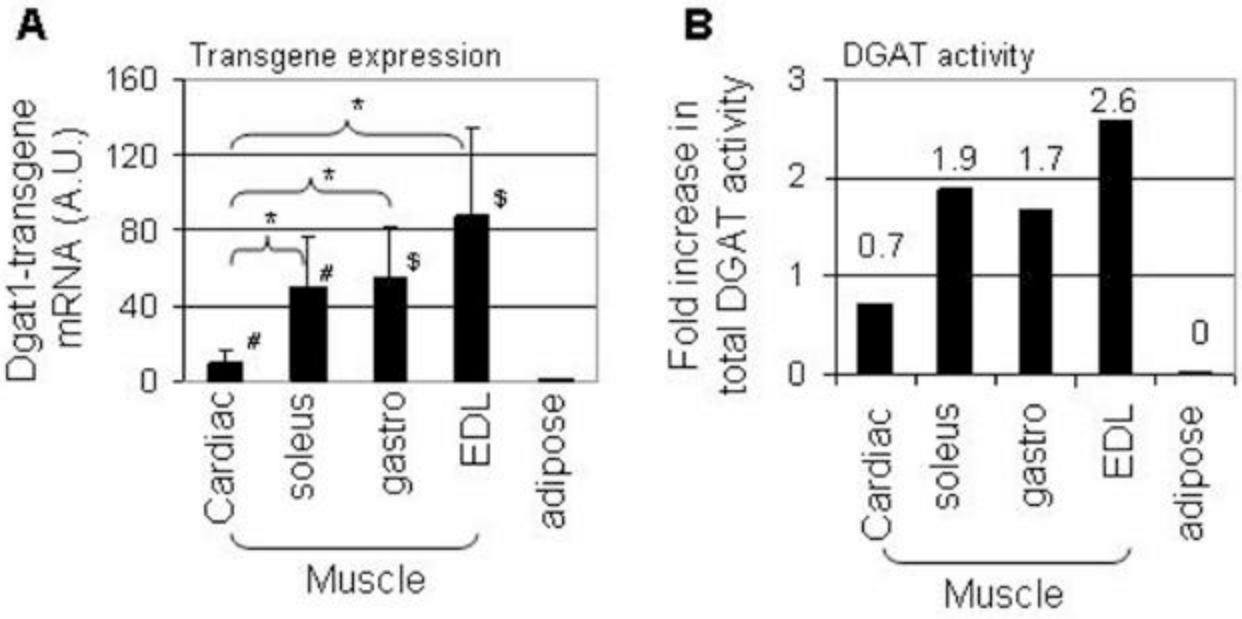
Supplemental Figure 2. Dgat1 transgene expression and total DGAT activity levels in various muscles in MCK-Dgat1 transgenic mice. A: Realtime PCR quantification of mRNA levels of the Dgat1 transgene in cardiac muscle and different skeletal muscles as compared with the levels in adipose tissue in MCK-Dgat1 mice (n=4 in each tissue group); *, $p<0.05$, comparisons are as indicated; # and $ denote $p<0.05$ and $p<0.01$, respectively, when comparisons are made between each muscle group and adipose tissue. **B:** Fold-increase of total DGAT activity levels in the indicated tissues of MCK-Dgat1 mice over the same tissues of WT mice. Data are expressed as "differences in tissue DGAT activity between the transgenic mice and WT mice divided by the activity levels in the WT tissues". "Gastro" denotes gastrocnemius muscle and "EDL" denotes extensor digitorum longus muscle.

Supplemental Figure 3. Activity levels of muscle PKC isoforms in HFD-fed MCK-Dgat1 and WT mice. A. Membrane-bound (Mb) PCKε and PKCθ in soleus muscles from WT mice on HFD [WT(HF)] (n=4) and transgenic mice on HFD [Dgat1(HF)] (n=4). **B:** Percentages of membrane-bound activity levels of the indicated PKC isoforms in soleus muscles from WT(HF) and Dgat1(HF) mice (n=4 in each membrane fraction and each total lysate). "% mb-bound activity" = mb-bound activity levels / total activity levels. p values are as indicated.

Supplemental Figure 1



Supplemental Figure 2



Supplemental Figure 3