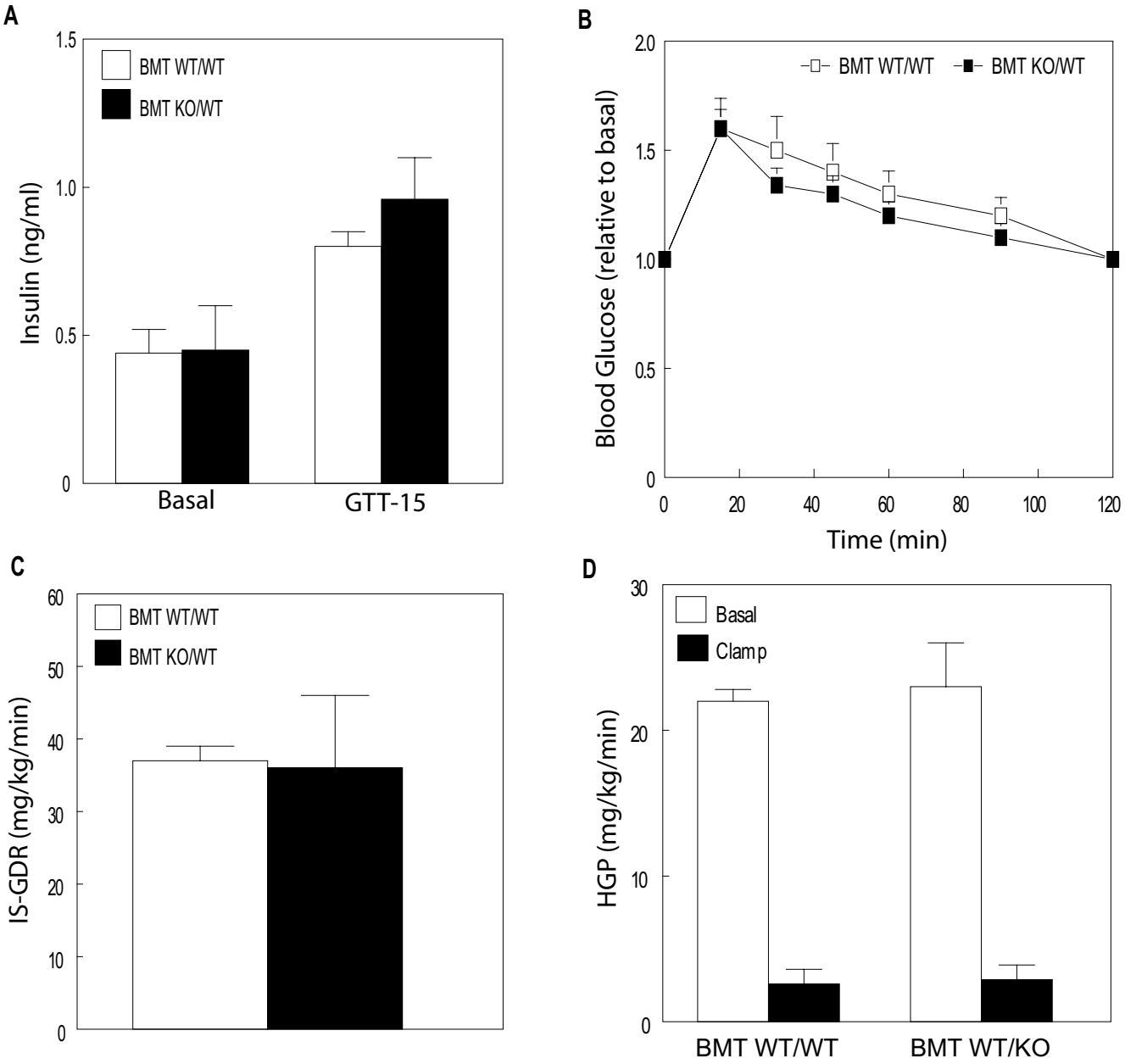
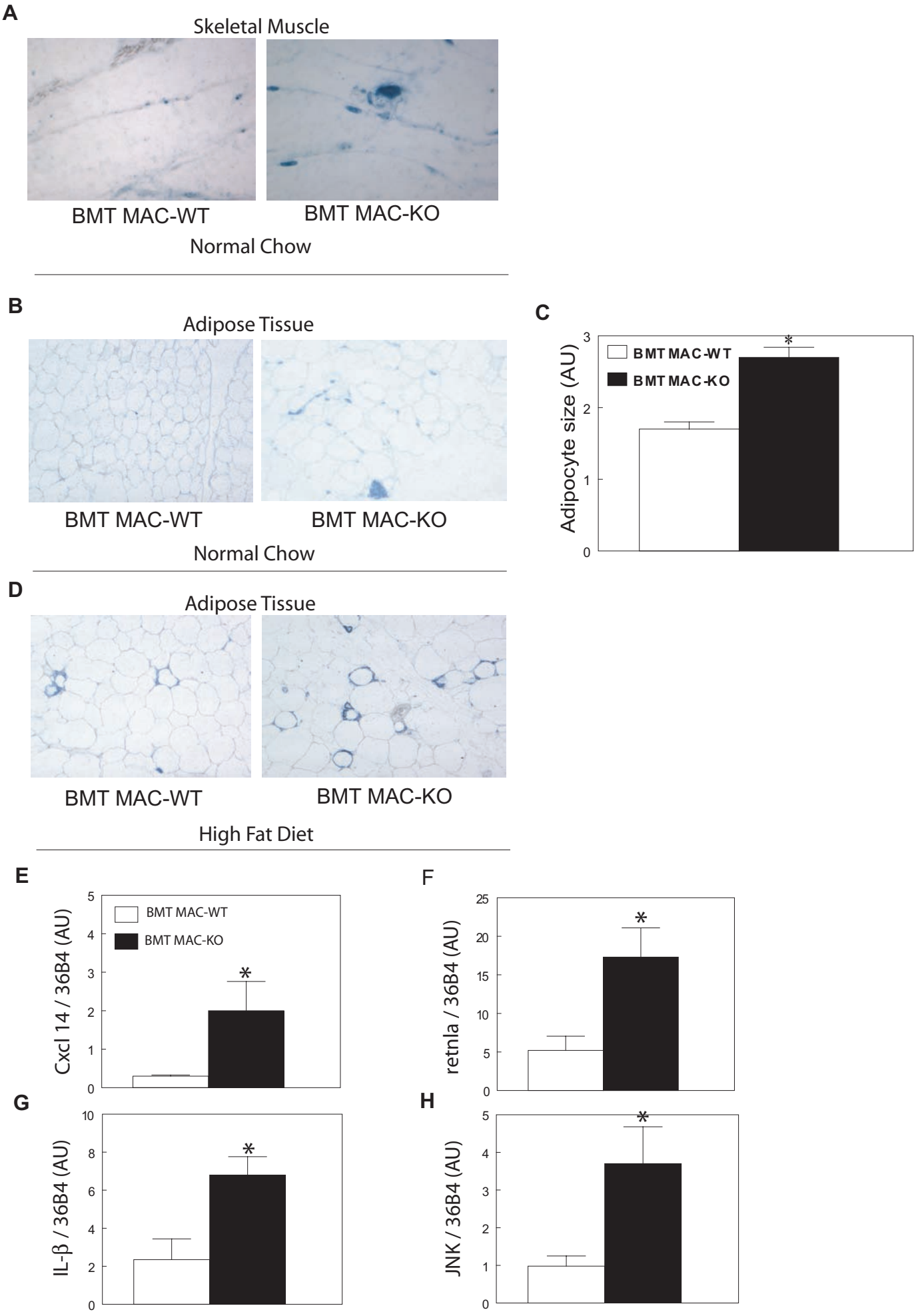

A
BMT WT/WT
BMT KO/WT
Insulin (ng/ml)
1.5
1.0
0.5
0
Basal
GTT-15
B
BMT WT/WT
BMT KO/WT
Blood Glucose (relative to basal)
2.0
1.5
1.0
0.5
0
0
20
40
60
80
100
120
Time (min)
C
BMT WT/WT
BMT KO/WT
IS-GDR (mg/kg/min)
60
50
40
30
20
10
0
D
Basal
Clamp
HGP (mg/kg/min)
30
20
10
0
BMT WT/WT
BMT WT/KO


A
Skeletal Muscle
BMT MAC-WT
BMT MAC-KO
Normal Chow
B
Adipose Tissue
BMT MAC-WT
BMT MAC-KO
Normal Chow
C
BMT MAC-WT
BMT MAC-KO
Adipocyte size (AU)
0
1
2
3
*
D
Adipose Tissue
BMT MAC-WT
BMT MAC-KO
High Fat Diet
E
BMT MAC-WT
BMT MAC-KO
Cxcl 14 / 36B4 (AU)
0
1
2
3
4
5
*
F
retnla / 36B4 (AU)
0
5
10
15
20
25
*
G
IL-β / 36B4 (AU)
0
2
4
6
8
10
*
H
JNK / 36B4 (AU)
0
1
2
3
4
5
*

Supplemental Information

Supplemental Figure 1. The insulin resistance phenotype is reversed in MAC-KO mice transplanted with PPARγ replete bone marrow progenitor cells. Transplantation of WT bone marrow progenitor cells into male recipient MAC-KO (BMT KO/WT; n=5) and MAC-WT (BMT WT/WT; n=5) mice was performed at 9 months of age. After 10 weeks recovery from transplantation, animals were bled in the fasted state and (**A**) plasma was analyzed for insulin concentration. (**B**) Glucose tolerance tests and (**C and D**) glucose clamp studies to assess skeletal muscle (**C**, IS-GDR) and hepatic (**D**, HGP) insulin sensitivity were performed. Values are expressed as a mean ± SEM. BMT WT/WT mice are represented by white bars and BMT KO/WT are represented by black bars, except for HGP where the bars are color coded to reflect + (black, clamp) or – (white, basal) insulin stimulation. No significant differences between the two groups were observed for any of the parameters assessed.

Supplemental Figure 2. Increased F4/80 staining in skeletal muscle and adipose tissue is concomitant with increased adipocyte size and tissue inflammation. Skeletal muscle (quadriceps) and adipose tissue (epididymal fat) were harvested from BMT MAC-WT and BMT MAC-KO mice following a normal chow or high fat diet. Immunohistochemical detection of macrophage-specific antigen F4/80 is indicated by dark staining in both muscle and adipose. (**A**) Increased F4/80 staining was observed adjacent to muscle fibers from normal chow fed BMT MAC-KO (left panel) vs. BMT MAC-WT (right panel). (**B**) Scattered focal increases in F4/80 staining were also observed in adipose tissue from normal chow fed BMT MAC-KO mice. Additionally, (**C**) adipocytes from normal chow fed BMT MAC-KO mice (black bar; *n*=10) were

significantly larger than those from BMT MAC-WT (white bar; *n*=7). (**D**) Following 8 weeks of high fat feeding, aggregates of F4/80 expressing cells were found in greater abundance in adipose tissue harvested from BMT MAC-KO vs. BMT MAC-WT mice. (**E-H**) Quantitative RT-PCR analysis performed on adipose tissue harvested from high fat fed BMT MAC-WT (white bar; *n*=6) and BMT MAC-KO (black bar; *n*=4) mice shows increased expression of (**E**) Cxcl14, (**F**) retnla, (**G**) IL-1β, and (**H**) JNK in KO mice. Data is expressed as a mean value ± SEM. Statistical differences were detected using one-way ANOVA, $P < 0.05$.

Supplemental Table 1. Microarray analysis of TG-Mϕ from BMT MAC-WT vs. BMT MAC-KO mice. To quantify the effect of macrophage specific PPARγ deletion on macrophage gene expression, microarray analysis was performed on RNA obtained from TG-Mϕ harvested from normal chow fed BMT MAC-WT (*n*=5) vs. BMT MAC-KO (*n*=5) mice12 weeks following bone marrow transplantation.