SUPPLEMENTAL FIGURE E 1

A

WT CHANGE (g)

veh GM

* *

B

WT CHANGE (g)

VEH 0.6 1.0 6.0

µg GM-CSF

* *

C

WT CHANGE (g)

veh GM hGM

*
SUPPLEMENTAL FIGURE 4

MALES

![Graph A](image)

**BODY LENGTH (cm)**

WEEKS OF AGE

FEMALES

![Graph B](image)

**BODY LENGTH (cm)**

WEEKS OF AGE

C

![Graph C](image)

FEMALES

![Image C](image)

% LEAN MASS

MALES  FEMALES

D

![Image D](image)

E

![Graph E](image)

FEMALE FAT PADS (g)

GM+/+ GM−/−

F

![Graph F](image)

% of GM+/+ EXPRESSION

AgRP NPY POMC IR Ob-Rb

GM+/+ GM−/−
SUPPLEMENTAL FIGURE 5

A  MALES  B  FEMALES

PLASMA INSULIN (pM)

GM+/+  GM⁻⁻

25  50  75  100

PLASMA INSULIN (pM)

25  50  75  100
SUPPLEMENTAL FIGURE 6

A  MALES

B  FEMALES

FOOD INTAKE (g)
SUPPLEMENTAL FIGURE 7

A  MALES

B  FEMALES

C  DAYS ON DIET

D  DAYS ON DIET

E  % BODY FAT

F  % BODY FAT

G  CALORIC INTAKE (g)

H  CALORIC INTAKE (g)

SUPPLEMENTAL FIGURE 7

A  MALES

B  FEMALES

C  DAYS ON DIET

D  DAYS ON DIET

E  % BODY FAT

F  % BODY FAT

G  CALORIC INTAKE (g)

H  CALORIC INTAKE (g)
Figure Legends for Supplemental Figures

Supplemental Figure 1

GM-CSF injections in rats.  (A) Rats injected with 0.6 µg i3vt GM-CSF (GM) had a greater decrease in body weight at 24 h post-injection, compared with rats receiving i3vt vehicle (veh) injection.  (B) Body weight loss in rats injected with 0.6, 1.0, or 6.0 µg did not differ significantly at any time point, as shown here at 48 h post-injection.  (C) Rats receiving 0.6 µg rat GM-CSF had significantly greater change in body weight at 24 h post-injection, compared to vehicle- and human GM-CSF- (hGM) injected rats.  Rats receiving 0.6 µg hGM did not differ significantly from vehicle-treated rats. (*p<0.05, all groups N = 7 to 9, mean ± SEM.)

Supplemental Figure 2

Food intake and body weight associated with sodium appetite test.  Following sodium appetite test, (A) food intake in rats receiving i3vt GM-CSF (0.6 µg) was significantly decreased and (B) body weight change was significantly greater, compared to i3vt vehicle-treated or i.p. saline- (sal) or lithium chloride (LiCl)-treated groups. (*p<0.05, all groups N = 7 to 9, mean ± SEM.)

Supplemental Figure 3

GM-CSF mRNA expression.  (A) Peripheral GM-CSF expression in ad lib-fed and 48-h fasted rats.  Semi-quantitative RT-PCR for GM-CSF detected transcripts in lung, adipose, and liver RNA from fasted and fed rats.  GM-CSF was normalized to housekeeping gene
L32, and mean value of GM-CSF in fed lung was set at 1. Expression in fasted lung and other tissues is expressed relative to that of fed lung. GM-CSF RNA accumulation did not differ significantly between groups. (n = 5 to 8) (B) GM-CSF expression was measured by Q-PCR in hypothalamus from fed, 48 h-fasted, or fed LPS-treated rats. Compared to expression in fed animals, GM-CSF expression was not significantly decreased in fasted animals and was increased in animals injected with LPS.

**Supplemental Figure 4**

Characterization of age- and sex-matched GM−/− and GM+/+ mice. Body lengths of (A) male and (B) female GM−/− and GM+/+ mice differed slightly at 12 weeks, but were similar at all other time points. (*p<0.05, n = 7-9, mean ± SEM). (C) The lean mass as a percent of total body weight was similar in all mice. (D) Visceral fat was visibly increased in female GM−/− mice, compared to GM+/+ control mice. (E) Weights of parametrial (PE), retroperitoneal (RE), and mesenteric (ME) fat pads were increased in female GM−/− mice compared to GM+/+ control mice. (*p<0.05, n = 4, mean ±SEM) (F) NPY, AgRP, POMC, insulin receptor mRNA expression was similar and LepR expression was increased in GM−/− and GM+/+ hypothalamus. (*p<0.05, n=8, mean ±SEM)

**Supplemental Figure 5**

Plasma insulin levels. Plasma insulin levels in (A) male and (B) female GM−/− mice did not differ significantly from those in sex-matched GM+/+ controls. (n = 7 to 11)

**Supplemental Figure 6**
Post-fasting food intake and high- or low-fat diet intake. Following a 24 h fast, food intake during 24 h re-feeding period did not differ between GM⁻/⁻ and GM⁺/⁺ male (A) and female (B) mice. (n = 7 to 11)

Supplemental Figure 7

Effects of high and low fat diets. Male and female GM⁻/⁻ and GM⁺/⁺ mice were placed on low or high fat diets for a period of 5 weeks. Body weights in (A) male GM⁻/⁻ mice were higher than in sex-matched GM⁺/⁺ mice on either diet, while fat composition of the diets had little effect in (B) female GM⁻/⁻ mice. (C) Body fat was increased proportionally in GM⁻/⁻ and GM⁺/⁺ males, while (D) GM⁻/⁻ females had increased body fat independent of dietary fat content. GM⁺/⁺ females on low and high fat diets had similar amounts of body fat. (E) Caloric intake was significantly increased in GM⁺/⁺ and GM⁻/⁻ male mice consuming a high fat diet, compared to a low fat diet. (F) GM⁺/⁺ female mice consumed more calories on a high fat diet but GM⁻/⁻, but caloric intake of GM⁻/⁻ female groups did not differ significantly on low or high fat diets. (*p<0.05, n = 8 to 10, mean ±SEM)