SUPPLEMENTARY DATA

Supplementary Figure 1. Metabolic phenotype of male and female STAT4$^{-/-}$C57Bl6 mice and wild type controls on chow and high fat diets. Intraperitoneal glucose and insulin tolerance tests GTT and ITT) were performed on age-matched male and female mice after 16 weeks of high fat or chow diets. Data is expressed as area under curve (AUC) and represents average±SEM from n=6-8 females and n=6 males.

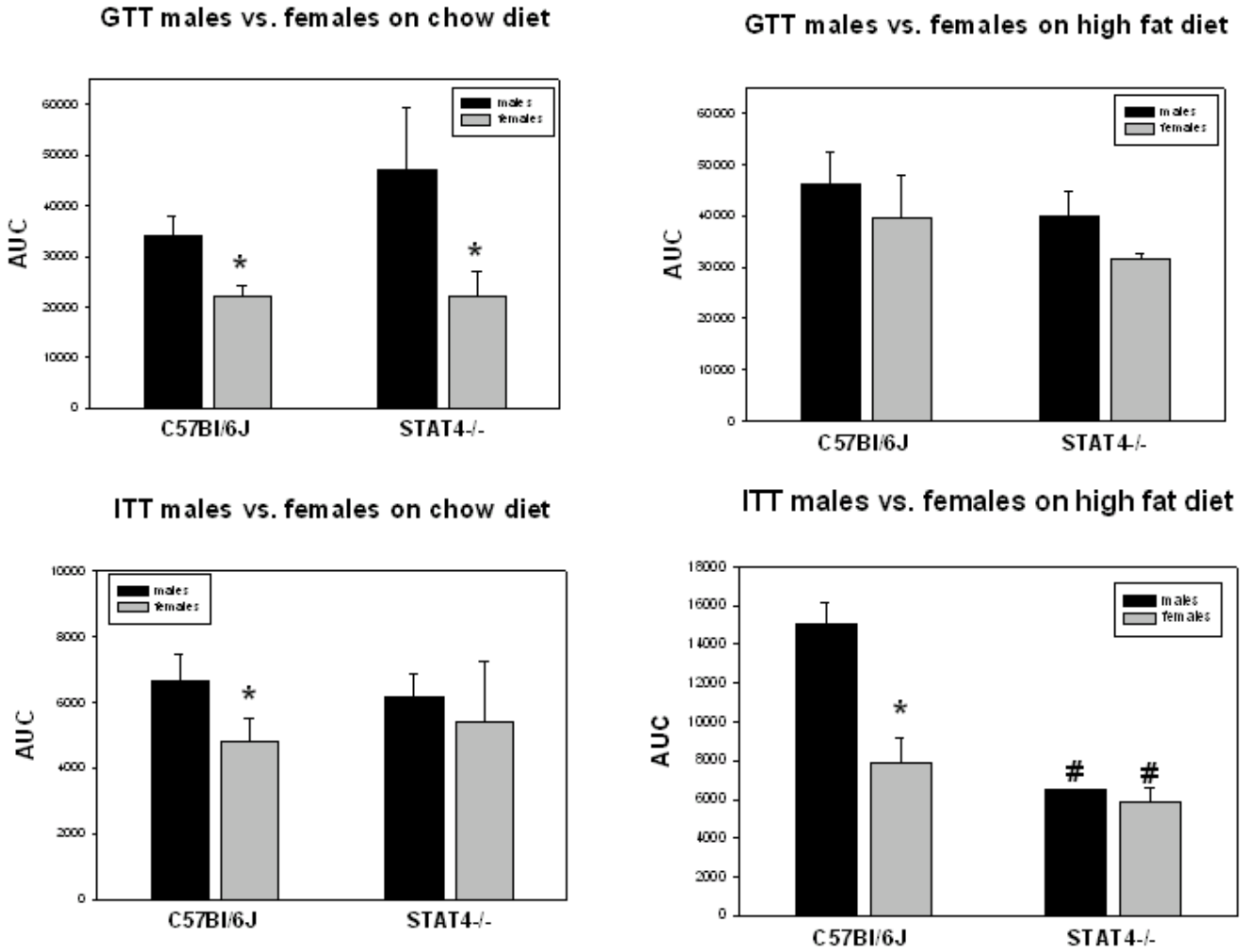

Figure justification: This supplemental information is important as some of the genetic alterations leading to improvement in insulin sensitivity may have a gender-specific bias. In this Figure we show that the improvement in insulin sensitivity was equally present in both the STAT4 deficient males and females compared to wild-type sex and age-matched controls.

SUPPLEMENTARY DATA

Supplementary Figure 2. Activation of insulin signaling pathway in isolated adipocytes Adipoctes separated by collagenase digestion from STAT4$^{-/-}$ and wildtype mice were treated in vitro with 5nM insulin for 10 min (n=3-7); activation of insulin receptor (IR) and protein kinase B (Akt) were measured by western blotting. Results are expressed as ratio of activated/basal phopho/total IR and Akt, respectively. Bars represent mean±SEM.

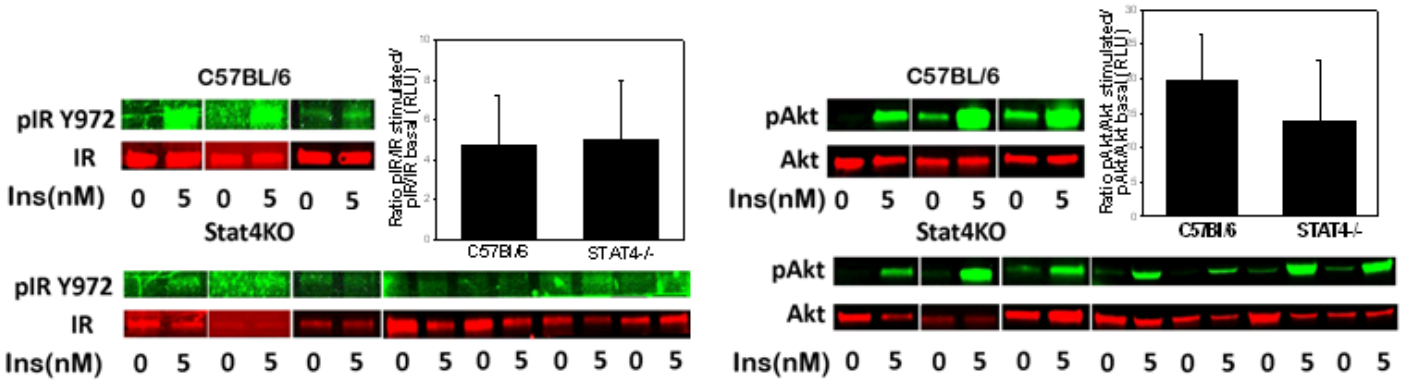

Figure justification: This supplemental information is important as it emphasizes that the improvement of insulin signaling in the STAT4-/- in vivo is a combination of STAT4 deficieny in adipocytes and the local pro-inflammatory milieu in adipose tissue.