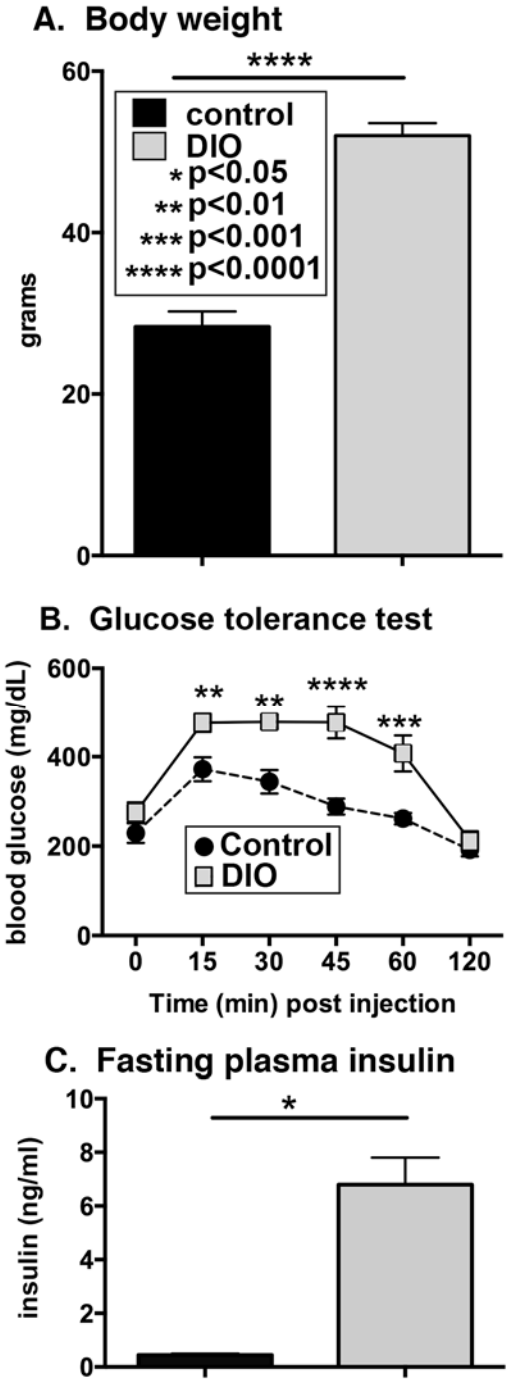
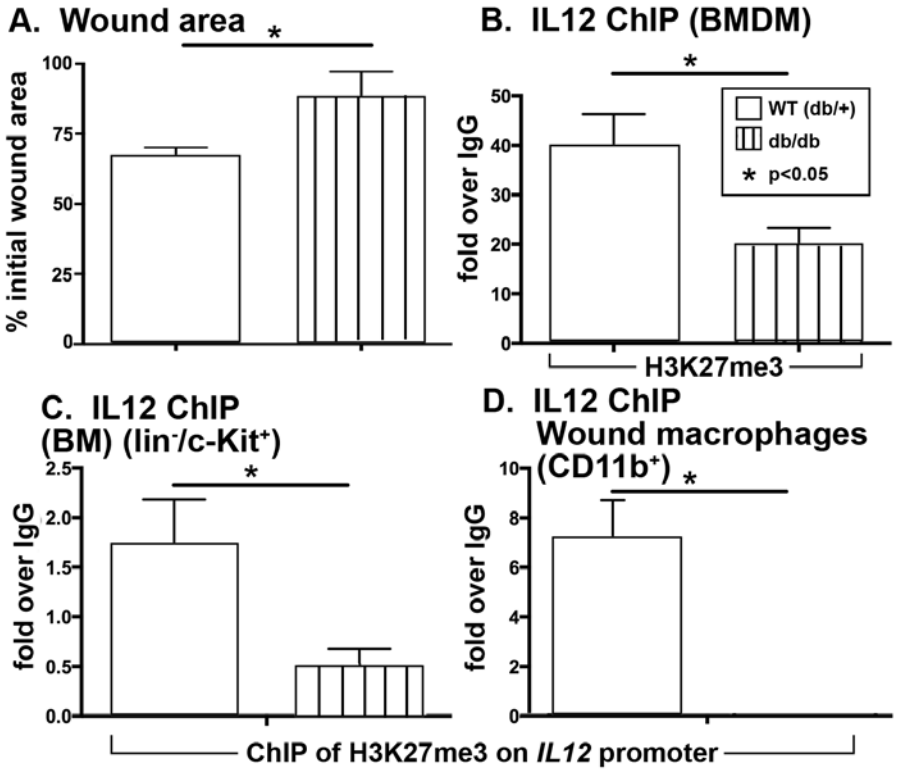
SUPPLEMENTARY DATA

Supplementary Figure 1. Diet-induced obese mice (DIO) develop hyperglycemia and hyperinsulinemia. (A) Body weight in control and DIO mice on HFD from weeks 6-26 (n=6/group). (B) The glucose tolerance test was performed on control and DIO mice. Mice were fasted for 4h and then injected intraperitoneally with 1 mg/g body weight D-glucose. Blood glucose measurements (mg/dl) were obtained at 15 minute intervals for 1 hour and then at the 2 hour timepoint. (n=6/group) (C) Fasting plasma insulin levels in control and DIO mice were obtained in 26 week old animals (n=3/group). Data are expressed as mean ± SE.



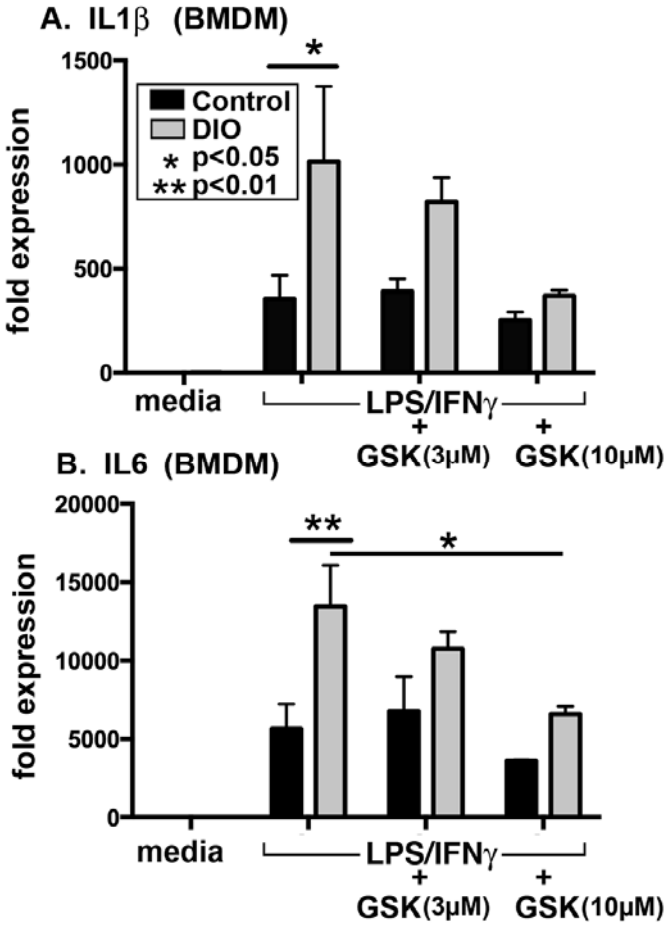
SUPPLEMENTARY DATA

Supplementary Figure 2. *db/db* mice have impaired wound healing and display decreased H3k27 methylation on the *IL12* promoter in bone marrow-derived macrophages (BMDM), bone marrow lin$^-$c-Kit$^+$ (LK) cells and wound macrophages (CD11b$^+$). (A) Male 22-26 week old *db/db* and WT control (*db/+*) mice were wounded using a 4mm punch biopsy and wound area was measured at day 3. Data shown are percent initial wound area and are expressed as mean ± SE. (n=3/group) (B) H3k27me3 levels on the *IL12* promoter as analyzed by Chromatin Immunoprecipitation (ChIP) assay in BMDM. (n=3/group) (C) LK (lin$^-$c-Kit+) cells were isolated *in vivo* from bone marrow using magnetic associated cell sorting (MACS) and ChIP analysis was performed for H3K27me3 on the *IL12* promoter. (N=3/group) (D) Macrophages (CD11b$^+$) were isolated *in vivo* from wounds using MACS and ChIP analysis was performed for H3K27me3 on the *IL12* promoter. (n=3/group) Data are expressed as mean ± SE.



SUPPLEMENTARY DATA

Supplementary Figure 3. Chemical inhibition of Jmjd3 by GSK-J4 in bone marrow derived macrophages (BMDM) results in decreased expression of M1-associated cytokine genes, *IL-1β* and *IL6*. (A)/(B) BMDM were stimulated with LPS/IFNγ in the presence of absence of GSK-J4 (3μM or 10μM) for 6 h and transcript levels of IL-1β and IL6 were analyzed by RT-PCR. (n=3/group) Data are expressed as mean ± SE.



SUPPLEMENTARY DATA

Supplementary Figure 4. H3k27me3 levels on M2-associated gene promoters were not significantly altered in wound macrophages from DIO mice compared with control mice. (A)/(B) DIO and control mice were wounded using a 4mm punch biopsy and wounds were harvested at day 3. $CD11b^+$ cells were isolated on MACS columns and analyzed by ChIP to detect H3K27me3 at the promoter of M2-associated genes, *Arginase 1* and *Mannose Receptor*. (n=3/group, experiment replicated 3x) Data are expressed as mean ± SE.