**Figure 1. Reductions in glucose handling are exacerbated in obese individuals with elevated glucocorticoids.**

Cushing’s and control BMI (A) and HOMA-IR scores (B) stratified by obesity status. Schematic of mouse study design (C). Mouse 6-hour fasted blood glucose levels during insulin tolerance test (D) and prior to insulin injection (basal; E) following 5 weeks of treatment. Mouse glucose infusion rate (GIR; F) and endogenous glucose production (EGP; G) during euglycemic clamp following 3 weeks of dexamethasone or vehicle treatment. Asterisks indicate a significant interaction between diet and treatment.

**Figure 2. Increased glucocorticoids lead to greater severity of hepatic steatosis in obese mice.**

Patient ALT levels (A). Mouse hepatic triglyceride levels (B) and H and E stained liver sections (C) following 6 weeks of treatment. qPCR of hepatic de novo lipogenic transcripts (D, E). Asterisks indicate a significant interaction between diet and treatment.

**Figure 3. Dexamethasone-treated reduces fat mass in obese mice.**

Weekly total body mass (A) and fat mass (B) measures via echoMRI in mice over the course of treatment. Inguinal and gonadal adipose tissue weights in 16 hour fasted mice following sacrifice (C). Food consumption measured weekly over the course of treatment (D). Asterisks indicate a significant interaction between diet and treatment.

**Figure 4. Dexamethasone-induces lipolysis *in vivo* and *in vitro*.**

1. 3T3 cell TG and morphology pictures B) 3T3 media glycerol C) 3T3 lipolytic mRNA D) 3T3 lipolytic protein E) serum NEFA and glycerol in 12 week dex mice F) 12 week transcripts

**Figure 5. Obesity exacerbates dexamethasone-induced lipolysis.**

1. HFD/NCD Dex serum lipolysis B) NCD/HFD dex mRNA lipolytic transcripts C) NCD/HFD dex lipolytic protein

Supplementary Figures:

H) Glucose turnover rate I) Glucose uptake in tissues