

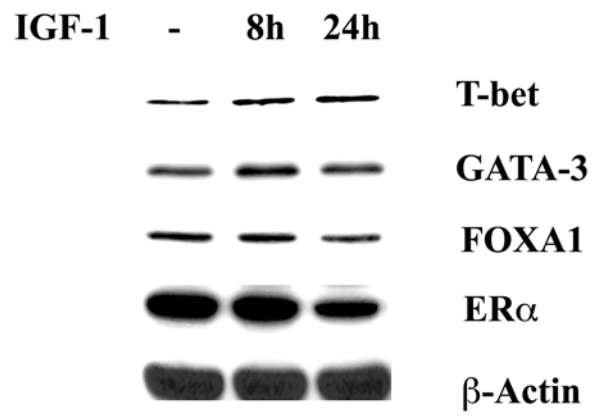
### **Supplementary figure legends:**

**Figure S1:** IGF-1 induces T-bet expression in MCF-7 cells. MCF-7 cells were treated with one ng/ml IGF-1 (Peprotech, Inc, Rocky Hill, NJ) for indicated time. T-bet, FOXA1, GATA-3 and ER $\alpha$  expression was measured by Western blotting. Note that IGF-1 induced T-bet but reduced FOXA1 and ER $\alpha$ . Unlike insulin, IGF-1 did not reduce GATA-3 levels.

**Figure S2:** Insulin increases T-bet transcripts. A) MCF-7 cells were treated with insulin (50 ng/ml) for four hours and qRT-PCR with TaqMan probes was performed to measure T-bet transcript levels (n=3). B) Insulin induces STAT-1 phosphorylation in MCF-7, which is main inducer of T-bet. Phospho-specific antibody was used to measure phosphorylation status of STAT-1.

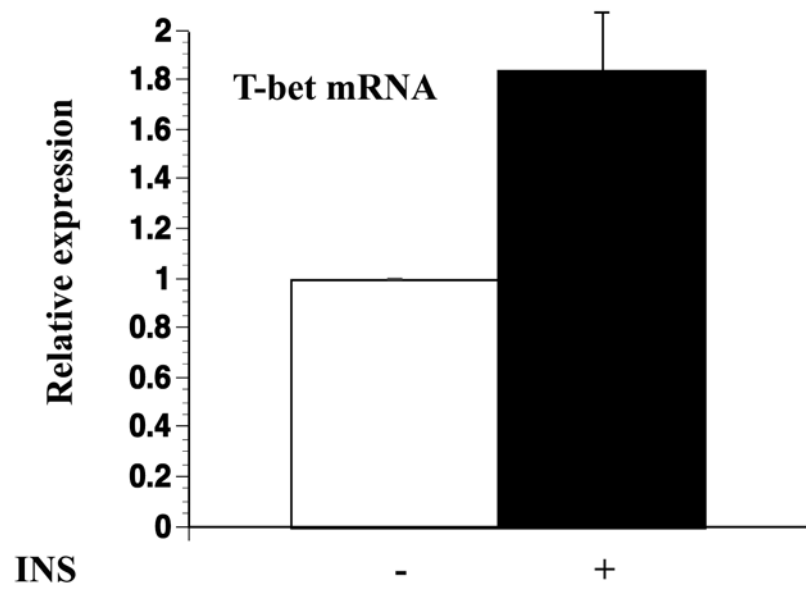
**Figure S3:** Insulin and T-bet reduce GATA-3 transcript levels. A) GATA-3 transcript levels in untreated cells and cells treated with insulin overnight followed by ethanol or E2 for four hours. qRT-PCR was performed to measure GATA-3 transcript levels. \*p<0.02, untreated versus various treatments. N=4. B) GATA-3 transcript levels in MCF-7p and MCF-7-T-bet cells as measured by qRT-PCR.

**Figure S4:** Insulin reduces ER $\alpha$  binding to XBP-1 and GREB-1 enhancer regions but not SMRT enhancer region. MCF-7 cells were pre-treated with insulin overnight followed by E2 for one hour. ChIP assay followed by q-PCR were performed to measure ER $\alpha$  binding to enhancer regions of indicated genes.

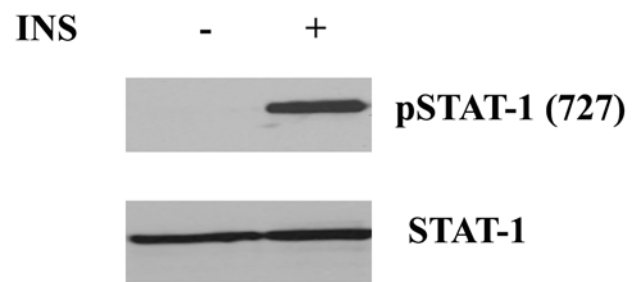


McCune et al., Figure S1

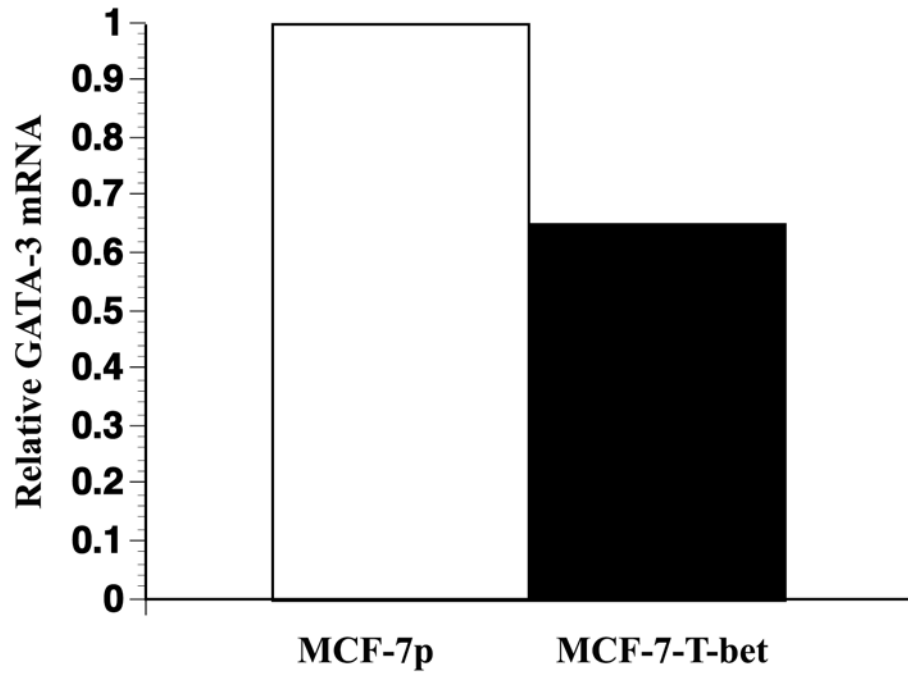
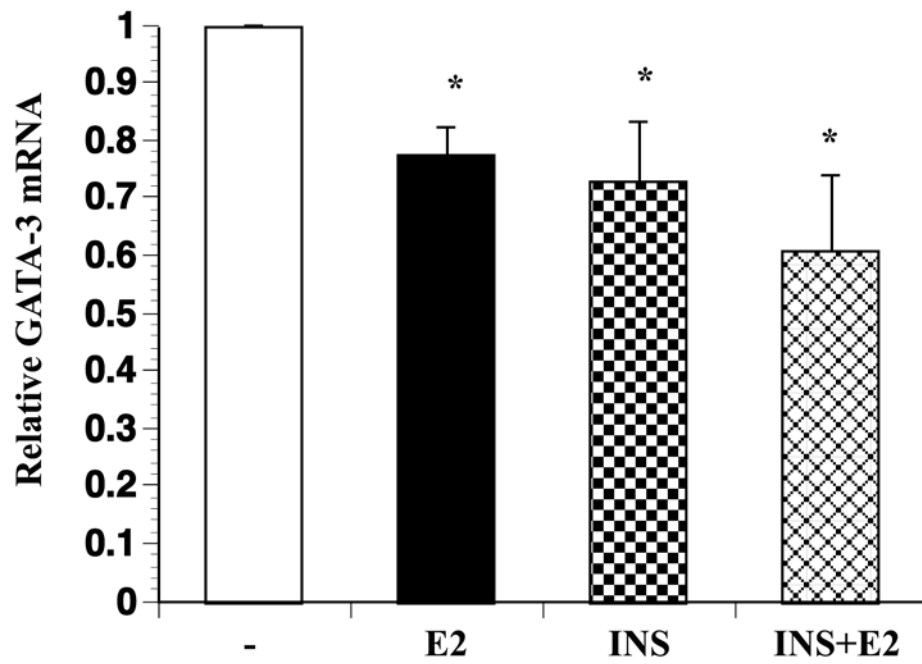
**A**



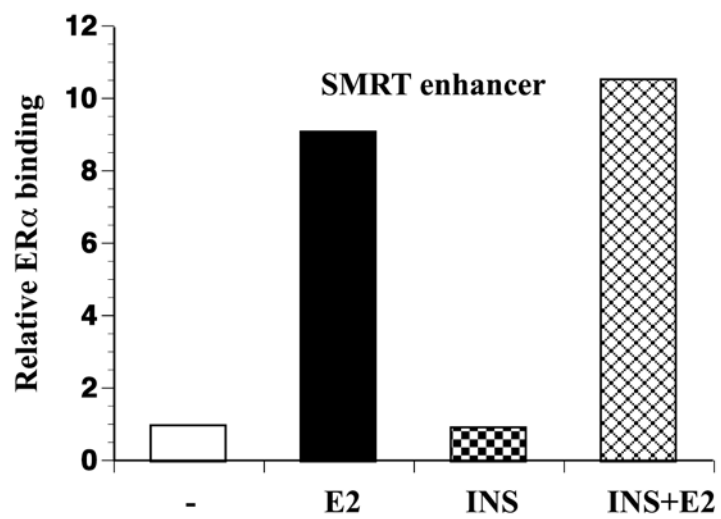
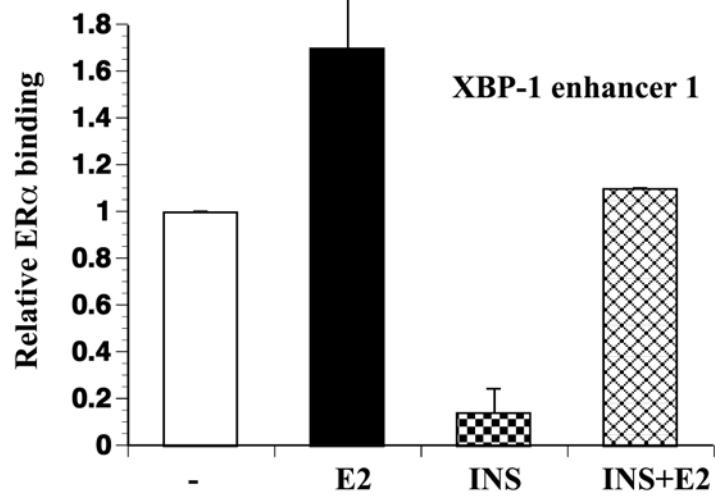
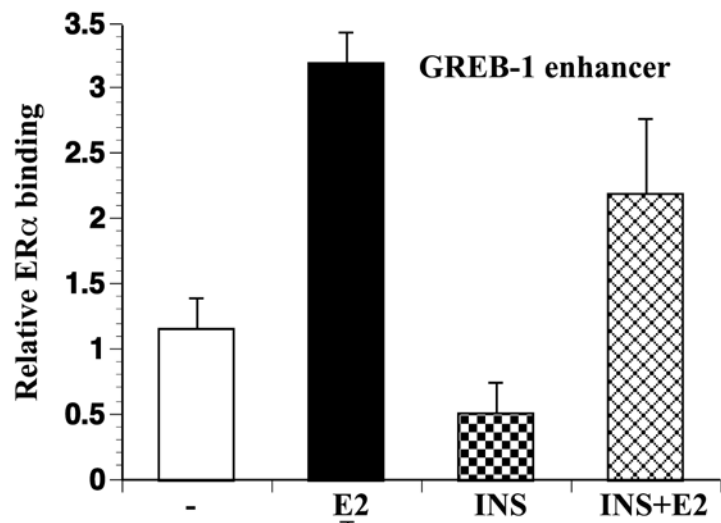
**B**



McCune et al., Figure S2



McCune et al., Figure S3



McCune et al., Figure S4