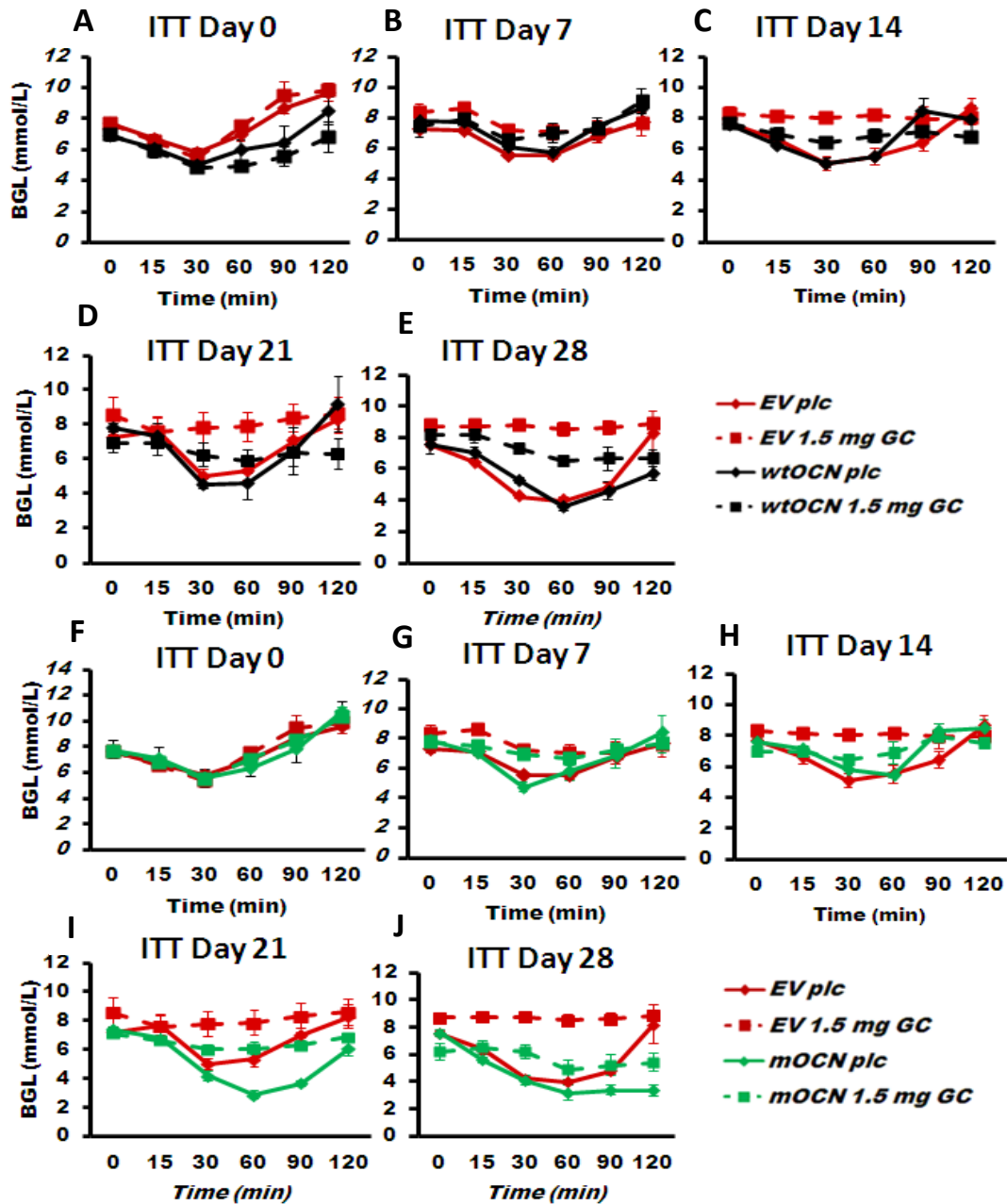


**Supplementary Figure 1: Targeted disruption of glucocorticoid signaling in osteoblasts partially prevents insulin resistance seen in glucocorticoid treated WT mice – absolute blood glucose values (BGL)**

(A-F) Insulin tolerance tests in WT (red) and tg (blue) mice treated with either placebo (solid lines) or corticosterone 1.5 mg per week (dashed lines). Glucocorticoid-treatment induces complete insulin resistance in WT, which is partially prevented in tg mice.



**Supplementary Figure 2: Heterotopic expression of wtOCN and mOCN improves glucocorticoid-induced insulin resistance – absolute blood glucose values (BGL)**

(A) and (F) All mice display a similar response to insulin on d0, prior to commencing glucocorticoid treatment.

(B) and (G) Corticosterone-treated mice develop insulin resistance after the first seven days of treatment (red, black and green dashed lines) whilst placebo treated mice remain insulin sensitive (solid lines)

(C-E) and (H-J) Following hTVI of the wtOCN and mOCN vector, previously corticosterone-treated insulin-resistant mice partially regain insulin sensitivity (black and green dashed lines). Corticosterone-treated mice that received the EV on d8 (red dashed lines) remain completely insulin-resistant.