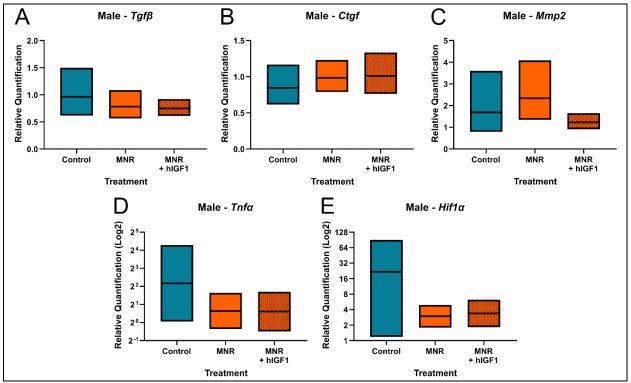
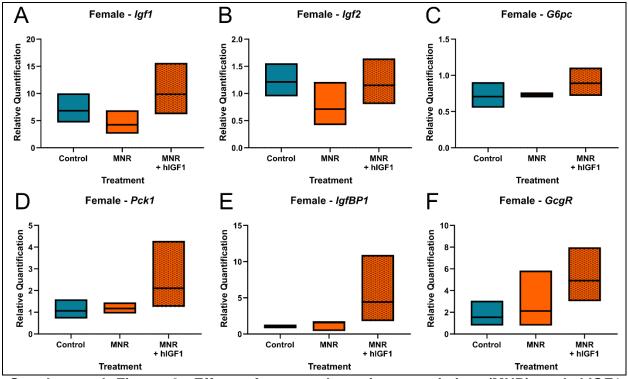
## **Supplemental Data**



Supplemental Figure 1. Effect of maternal nutrient restriction (MNR) and *hIGF1* nanoparticle treatment on mid-pregnancy male fetal liver growth factor and stress marker gene expression. There was no difference in the expression of *transforming growth* factor beta ( $Tgf\beta$ : A), connective tissue growth factor (Ctgf: B), matrix metalloproteinase 2 (*Mmp2*; C), tumor necrosis factor alpha ( $Tnf\alpha$ ; D) and hypoxia inducible factor 1 alpha ( $Hif1\alpha$ ; E) between Control, MNR and MNR + *hIGF1*. *n* = 7 Control dams (8 male fetuses), 5 MNR dams (7 male fetuses), and 7 MNR + *hIGF1* nanoparticle dams (11 male fetuses). Data are estimated marginal means ± 95% confidence interval.



Supplemental Figure 2. Effect of maternal nutrient restriction (MNR) and *hIGF1* nanoparticle treatment on mid-pregnancy female fetal liver insulin sensing and gluconeogenesis enzyme gene expression. There was no difference in the expression of *insulin-like growth factor 1 (Igf1: A), Igf2 (B), glucose-6-phosphatase (G6pc; C), phosphoenolpyruvate carboxykinase 1 (Pck1; D) Igf Binding Protein 1 (IgfBP1; E) and Glucagon Receptor (GcgR; F) between Control, MNR and MNR + <i>hIGF1. n* = 7 Control dams (4 female fetuses), 5 MNR dams (7 female fetuses), and 7 MNR + *hIGF1* nanoparticle dams (8 female fetuses). Data are estimated marginal means ± 95% confidence interval.