- **A.** Comparison of relative uterine size of 6-8 wk old Lepr<sup>db</sup> (A-C) [mutant] and Lepr<sup>db</sup> m (D-F) [control] mice prior to  $E_2$  priming (A). The Lepr<sup>db</sup> uterine histological (H&E) phenotype has been described as infantile with a predominance of stroma and immature glandular epithelium (B) compared to age and estrous cycle matched controls (E) [H&E 10X magnification]. Five days following subcutaneous  $E_2$  implant placement, Lepr<sup>db</sup> (C) demonstrated a similar epithelial glandular and stromal proportion and architecture as controls (F) during microscopic observation (H&E, 60X magnification). Scale bar: 100  $\mu$ m
- **B.** Graphical comparison of relative uterine weights of Lepr<sup>db</sup> m and Lepr<sup>db</sup> (N=3) mice before and after estrogen exposure as described previously. Prior to estrogen exposure, the mean uterine weight of Lepr<sup>db</sup> was significantly lower than Lepr<sup>db</sup> m (ANOVA p<0.01). However, uterine weights of both genotypes were similar following 5 days of estrogen treatment. Lepr<sup>db</sup> m and Lepr<sup>db</sup> represent db mutant controls and db mutants respectively. The notation  $+E_2$  designates 5 days of estrogen exposure in each mouse group. Different letters represent different letters at the level of p<0.01.



