



**Supplementary Figure S2 Initial validation studies of NeNA rats as a suitable model with PCOS-like features.** Major phenotypic features of the model of NeNA, induced by injection of a single bolus of T (1.25 mg) on PND1, as defined by a series of reproductive and metabolic parameters in adulthood. NeNA rats were heavier than controls and displayed elevated basal glucose and insulin levels. In addition, NeNA rats showed smaller ovaries and a state of anovulation, with cystic-like appearance of the ovaries (not shown). Finally, while basal mean LH levels were decreased in NeNA rats, they showed LH hypersecretion in response a single bolus of 1 nmol KP-10, as revealed by the area under the curve over a 120-min period following KP administration. Altogether, these features validated the use of this NeNA protocol as PCOS model for extended repro/metabolic characterization, as well as KP-54 treatment. Each histogram represents the mean  $\pm$  SEM ( $N = 8$ ). Data were analyzed by Student  $t$  tests (\* $P < 0.05$ , \*\* $P < 0.01$ , \*\*\* $P < 0.001$  versus control group).