SUPPLEMENTAL DATA

Angiotensin AT_{1A} receptors on leptin receptor-expressing cells control resting metabolism

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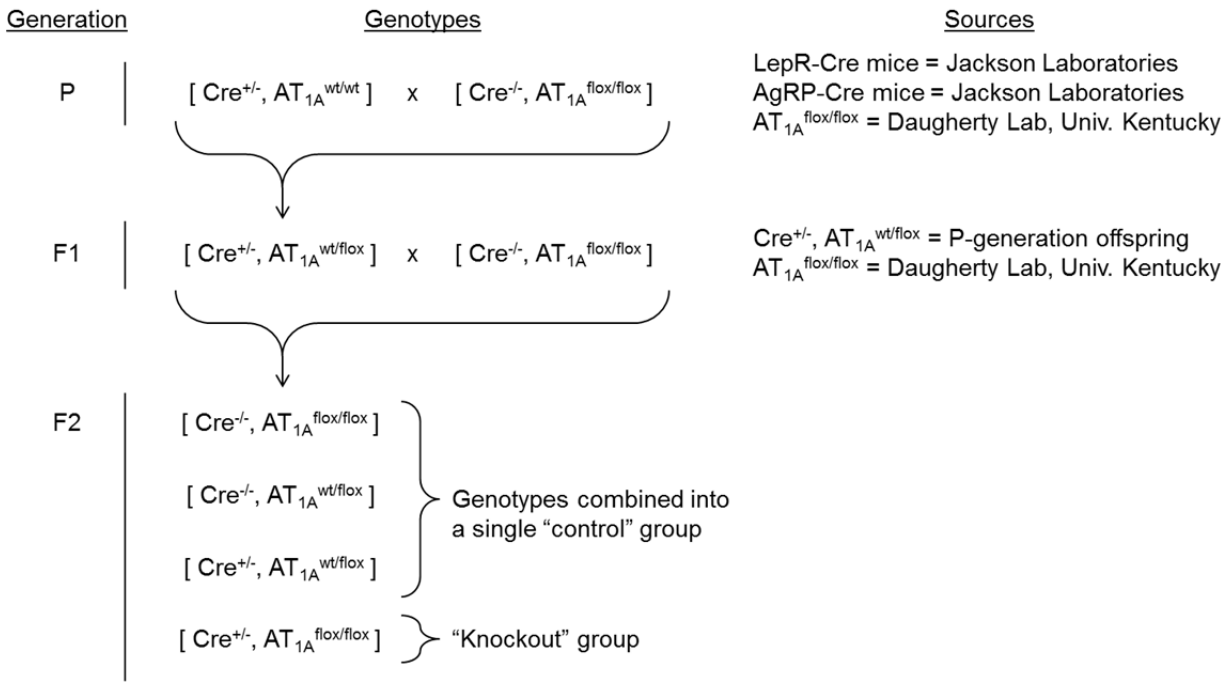
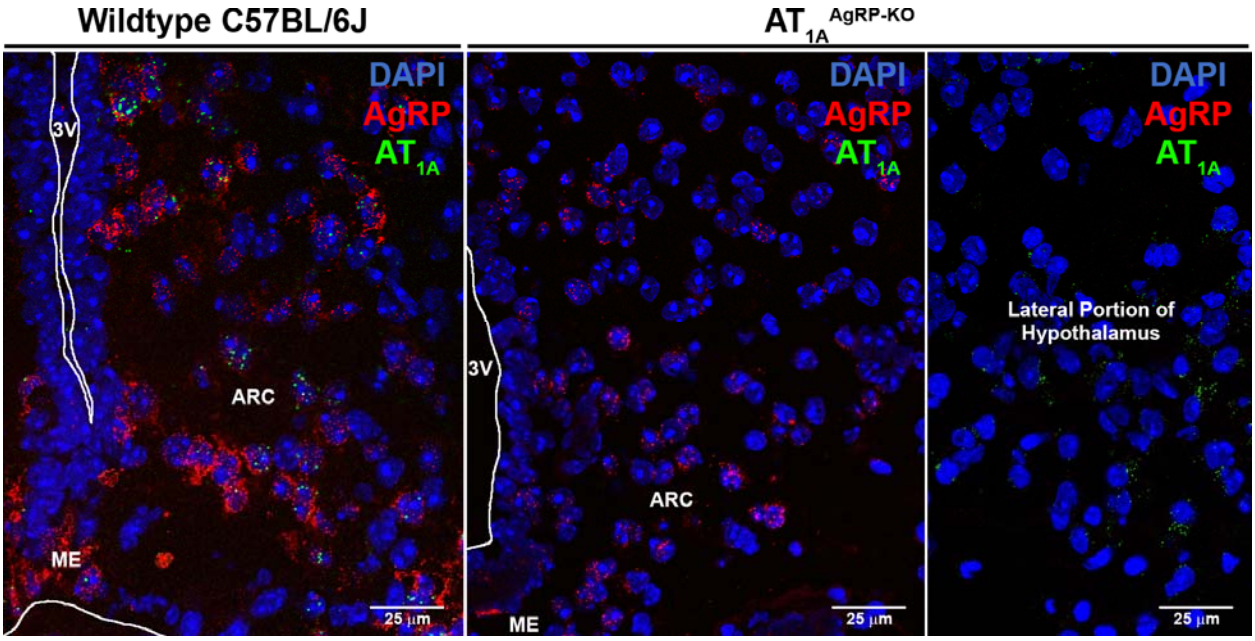


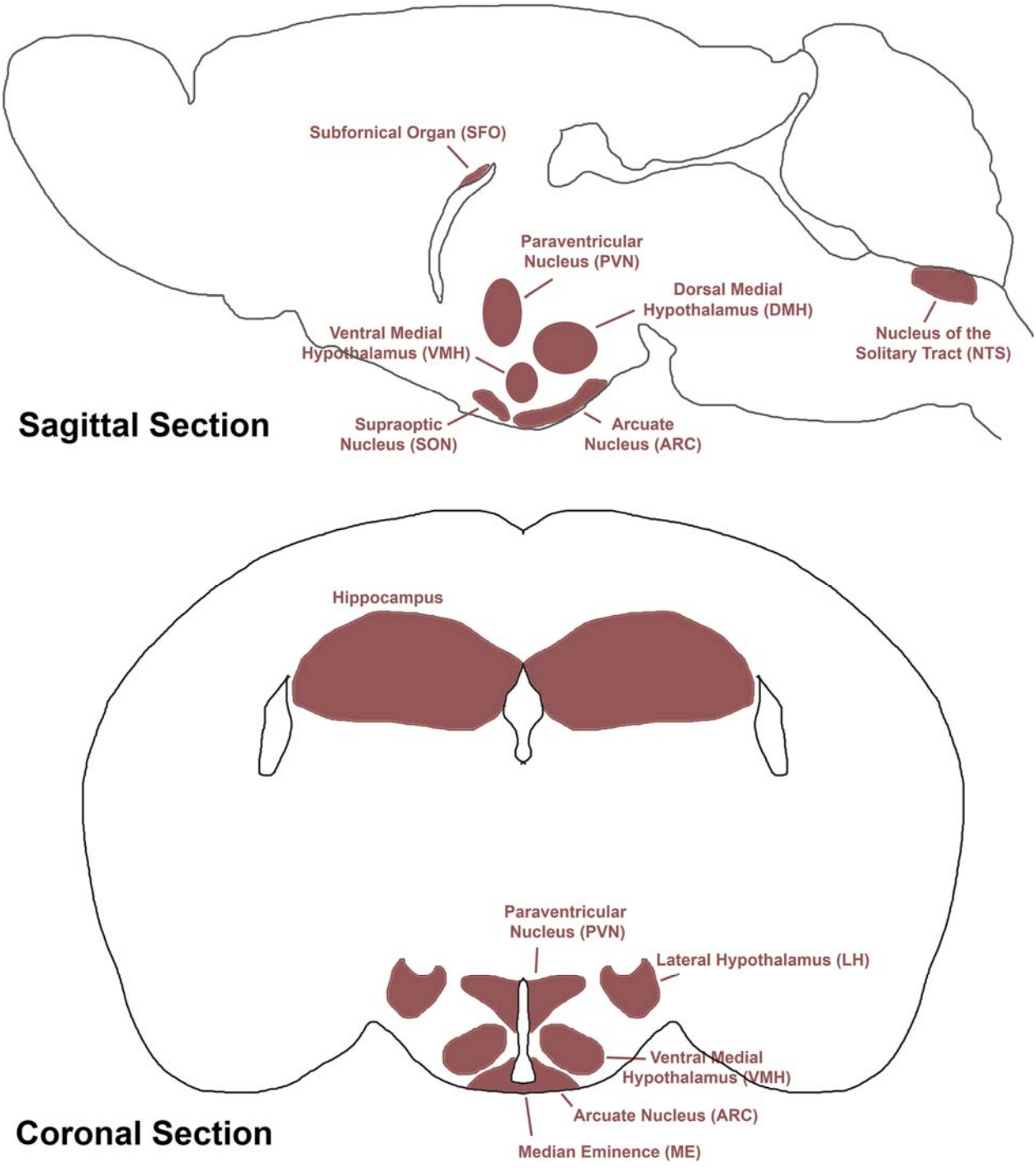
Supplemental Figure 1: Breeding Scheme

Littermate controls were used for all studies of $AT_{1A}^{LepR\text{-}KO}$ and $AT_{1A}^{AgRP\text{-}KO}$ mice. Founder mice were obtained as described in the main text, and breedings within both colonies were performed as illustrated in Supplemental Figure 1. Notably no phenotypic differences were observed among the three "control" genotypes, and thus these three groups were combined into a single "control" group for statistical comparisons against "knockout" animals. Phenotypes tested and confirmed as not divergent among control groups included body mass, body composition, food intake, digestive efficiency, resting metabolic rate, spontaneous physical activity, gene expression within the arcuate nucleus and adipose, STAT3 phosphorylation within the arcuate nucleus, sympathetic nervous activity, blood pressure and heart rate.



Supplemental Figure 2: Loss of AT_{1A} transcript in arcuate nucleus of $AT_{1A}^{AgRP\text{-}KO}$ mice

To confirm disruption of AT_{1A} expression within the arcuate nucleus in targeted animals, fluorescent in situ hybridization (RNAscope) was performed on coronal sections of hypothalamus from $AT_{1A}^{AgRP\text{-}KO}$ mice in parallel to the sections from wildtype C57BL/6J mice depicted in Figure 5. As illustrated in Supplemental Figure 2, green fluorescence (indicating AT_{1A} mRNA) was lost from the arcuate nucleus of $AT_{1A}^{AgRP\text{-}KO}$ mice, but maintained in other regions of the hypothalamus from the same animal.



Supplemental Figure 3: Schematic of relevant brain structures

Brain structures identified throughout the manuscript, highlighted in a drawing adapted from Paxinos & Franklin (1).

Supplemental References

1. Paxinos G, and Franklin KBJ. *The Mouse Brain in Stereotaxic Coordinates.* San Diego, California: Academic Press; 2001.