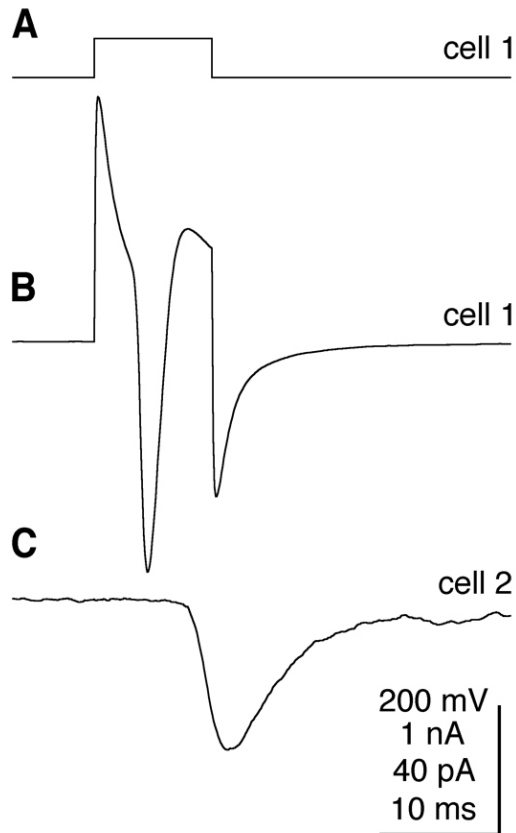
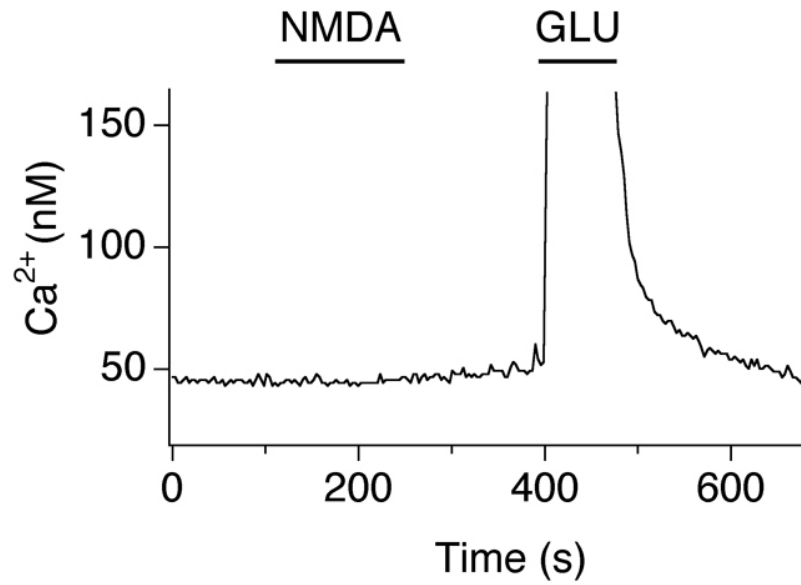


Liu X, Popescu IR, Denisova JV, Neve RL, Corriveau RA, Belousov AB (2008) Regulation of cholinergic phenotype in developing neurons. *J Neurophysiol* 99:2443-2455.

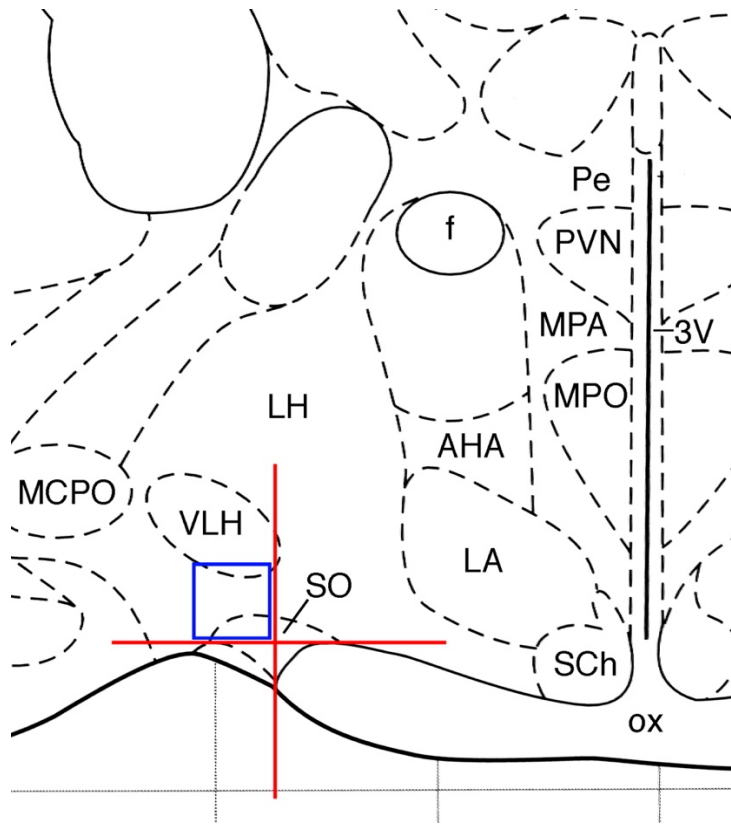
SUPPLEMENTAL FIGURES



Supplemental Figure 1. Monosynaptic EPSCs in dual whole-cell test in the AP5+CNQX-treated culture. The figure demonstrates a monosynaptic EPSC in dual whole-cell voltage-clamp recording from a pair of synaptically coupled neurons. An inward current evoked in one cell (A, B) generates a monosynaptic EPSC in the other cell (C). Voltage (A) and current (B, C) traces are shown. Vertical calibration bar: 200 mV, A; 1 nA, B; 40 pA, C.



Supplemental Figure 2. Hypothalamic neurons in cultures obtained from NMDAR1 knockout mice are not responsive to NMDA (5 μM), but do respond to glutamate (10 μM , GLU; $n=62$ neurons). Representative trace from one neuron in a fura-2 AM Ca^{2+} imaging experiment is shown.



Supplemental Figure 3. This figure shows schematic location of the rat hypothalamic region where ChAT-positive and NeuN-positive cells were counted (rat coronal brain section, Bregma -1.30 mm; adapted from (Paxinos and Watson 1998). The blue colored box represents a 330 μm x 330 μm square field, inside which the cells were counted. Two red lines show schematically the coordinates (relative to the optic chiasm) that were used to allocate the counting box. Abbreviations: 3V, 3rd ventricle; AHA, anterior hypothalamic area; f, fornix; LA, lateroanterior hypothalamic nucleus; LH, lateral hypothalamic area; MCPO, magnocellular preoptic nucleus; MPA, medial preoptic area; MPO, medial preoptic nucleus; ox, optic chiasm; Pe, periventricular hypothalamic nucleus; PVN, paraventricular hypothalamic nucleus; SCh, suprachiasmatic nucleus; SO, supraoptic nucleus; VLH, ventrolateral hypothalamic nucleus.