

**Supplemental Figure 5: photocurrent and histological validation of approach used in Figure 5.** (A) Dual AAV approach to express ChR2:mCherry in NAc-projecting VTA neurons in wild-type mice. (B) Example of photocurrent from ChR2:mCherry-positive neuron of VTA. (C) Example images under DIC R light and mCherry expression around patch-clamp pipettes. (D) Additional cases of histology.

FS5

