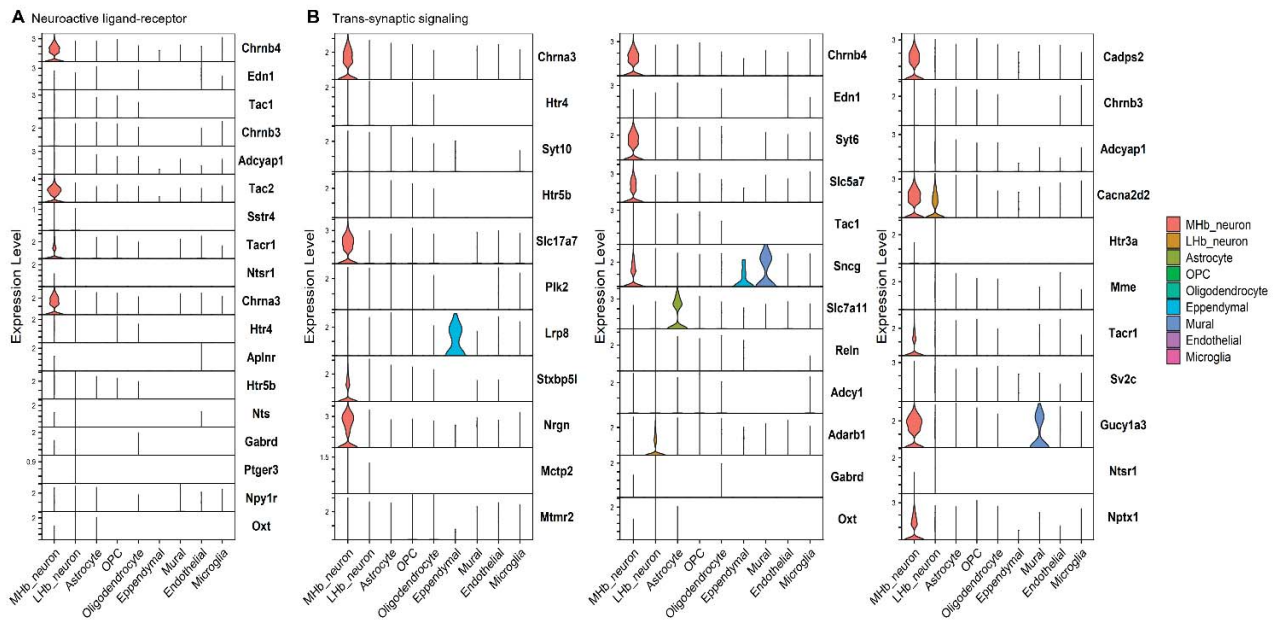
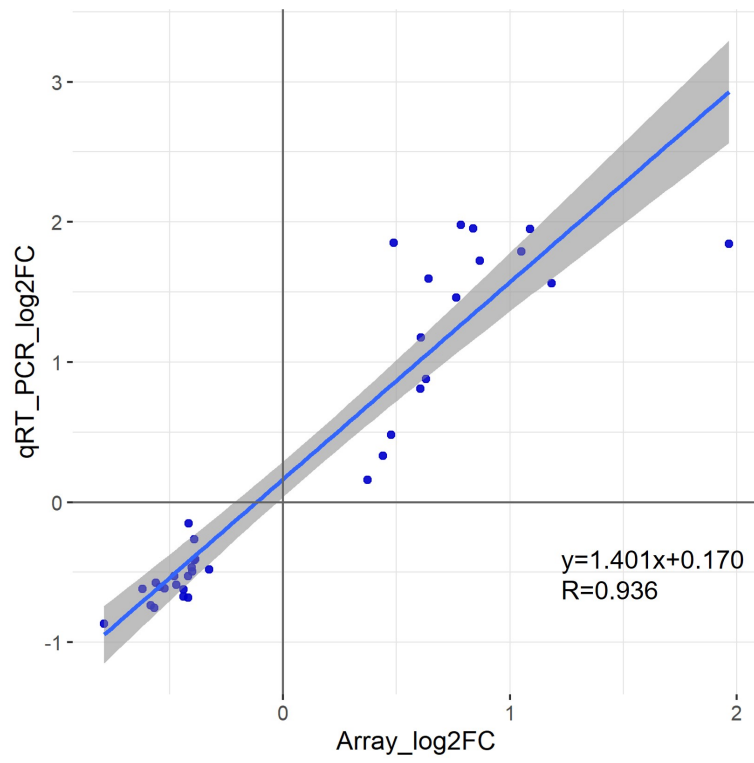


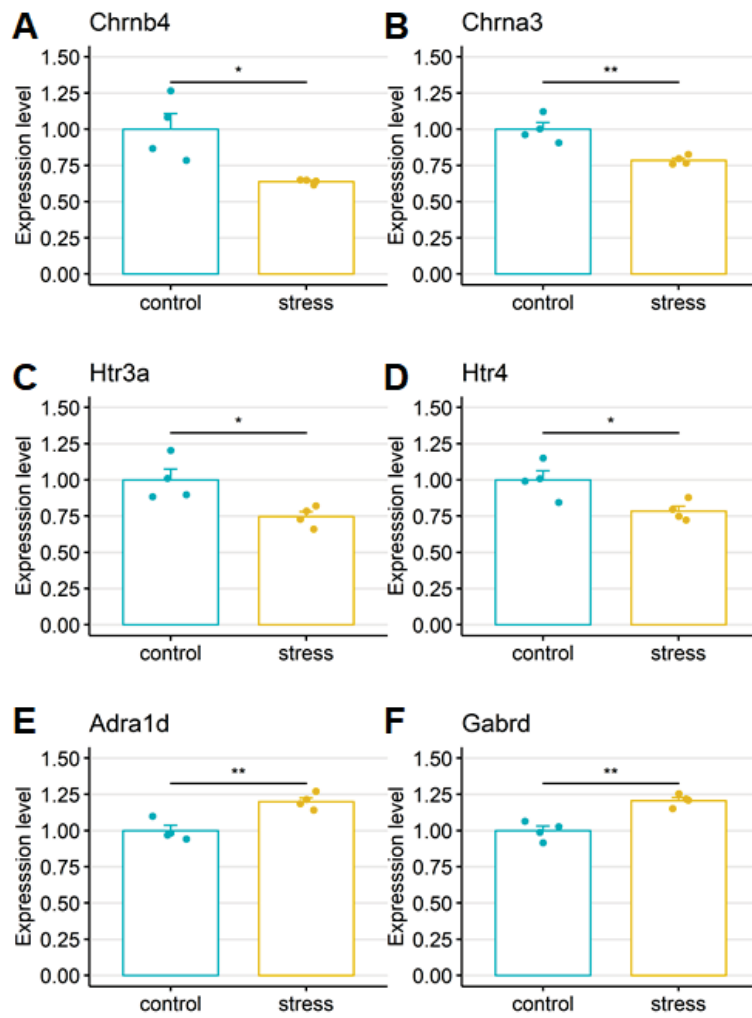
Supplementary Fig. S1. Dimension plot and markers for cell-type clusters. (A) Dimension plot for the control and stimulation dataset of GSE137478. (B) Violin plot with canonical and habenular regions markers indicating cell-type clusters.



Supplementary Fig. S2. Cell type-specific expression of enriched pathway related genes showing all genes included in the pathway. (A) Violin plot showing neuroactive ligand-receptor interaction pathway related DEGs. (B) Violin plot indicating trans-synaptic signaling pathway related genes.



Supplementary Fig. S3. Regression plot for microarray and qRT-PCR results.



Supplementary Fig. S4. Relative expression levels of drug-target genes. Expression levels from array data. (A and B) Genes related to cholinergic synapse. (C and D) Gene related to serotonergic synapse. (E and F) Gene related to neuroactive ligand-receptor interaction. (* $P < 0.05$, ** $P < 0.01$, Student's t -test).