



**Supplementary Figure S1.** Image and mRNA level of gene overexpression in the hippocampus. (A) Schematic showing placement of AAV-ZsGreen1 and AAV-Ttr injection sites in coronal slice of the mouse brain. (B) Representative image of ZsGreen1 overexpression with AAV-ZsGreen1 in the hippocampus of male B6 mice with high magnification shown as lower layer. Scale bar: 500  $\mu$ M (upper layer), 200  $\mu$ M (lower layer). DG, dentate gyrus. (C) The mRNA level of Ttr was analyzed by RT-qPCR with RNA extracted from the hippocampus of ZsG and TTR mice (n = 4-5). The box represents the 25-75th percentiles, and the median is indicated. The whiskers show the maximum and minimum values. \*\*p < 0.01.