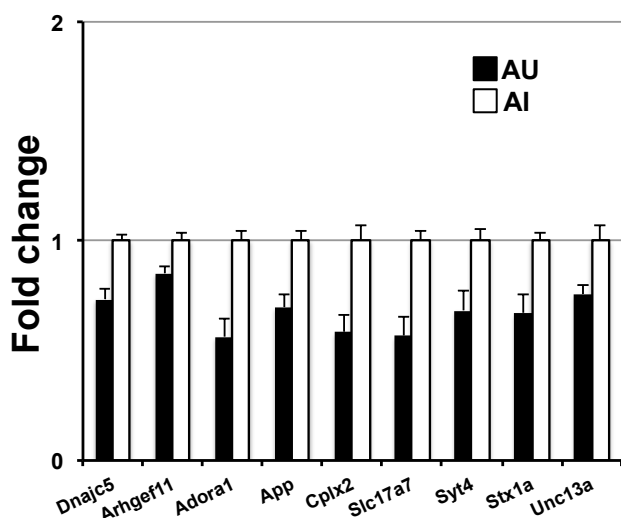


A. Basal



B. Activated

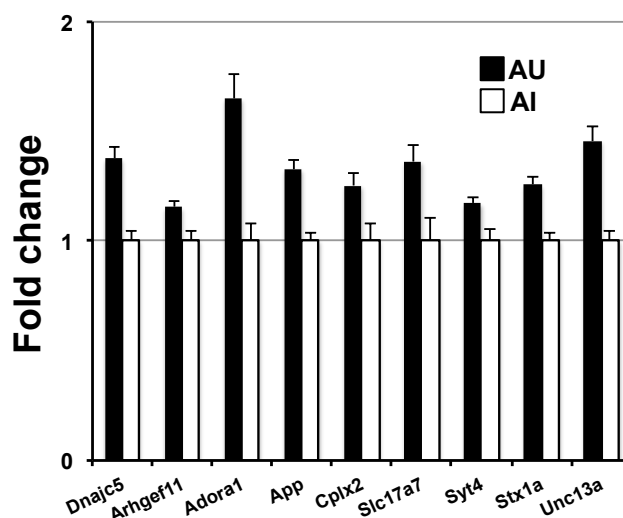


Figure S5. Relative microarray intensities of GO: Synaptic Transmission functional group genes demonstrate dynamic regulation with behavioral activation. **A.** Relative microarray expression intensities from Basal aging dataset from the overlap of AU-specific decreased genes and activated AU increased genes as described in the text. **B.** Relative gene expression levels of the same genes in behaviorally activated dataset. All intensities normalized to AI subjects. Error bars indicate SEM. All differences significant at $p < 0.05$ for **A.** and $FDR < 0.05$ for **B.** Abbreviations: Dnajc5, DnaJ (Hsp40) homolog, subfamily C, member 5; Arhgef11, Rho guanine nucleotide exchange factor (GEF) 11; Adora1, adenosine A1 receptor; App, amyloid beta (A4) precursor protein; Cplx2, complexin 2, Slc17a7, solute carrier family 17 (sodium-dependent inorganic phosphate cotransporter), member 7; Syt4, synaptotagmin IV; Stx1a, syntaxin 1A (brain), Unc13a, unc-13 homolog A (*C. elegans*).