



Figure S3 Homozygous survival plotted as a function of population density, and with *dVMAT* mutants expressing *UAS-DVMAT* using the indicated drivers. (A) Survival of homozygous *dVMAT* progeny ($^{-/-}$) are plotted as a function of population density (black circles). Data for *dVMAT* mutants expressing *UAS-DVMAT* using the *Ddc-Gal4* are shown in gray. Rescue of *dVMAT* using *TH-Gal4* (B), *TrH-Gal4* (C), *Tdc-Gal4* (D), and *daughterless-Gal4* (E) is indicated. Second-order polynomial trendlines are displayed as solid lines. (F) Under standard culture situations (500-1000 progeny/bottle), approximately 6% of the homozygous *dVMAT* null mutant ($^{-/-}$) progeny survive. Expression of a *DVMAT* transgene in DA or 5-HT cells using *TH-Gal4* (TH), *TrH-Gal4* (TrH), or *Ddc-Gal4* (Ddc) respectively, do not rescue the survival deficit, whereas expression of *DVMAT* using *da-Gal4* (*ubiq*^{-5HT}) or *Tdc2-Gal4* (Tdc) significantly rescues lethality under standard, high density culture conditions (1-way ANOVA, * $p < 0.05$, Bonferroni post test).