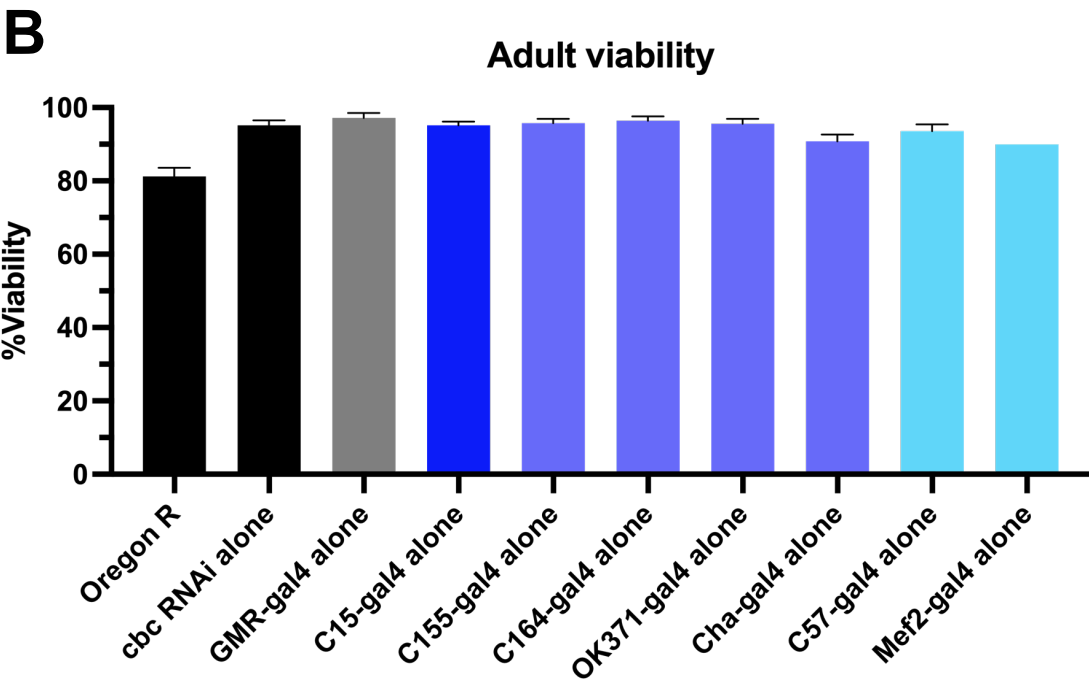
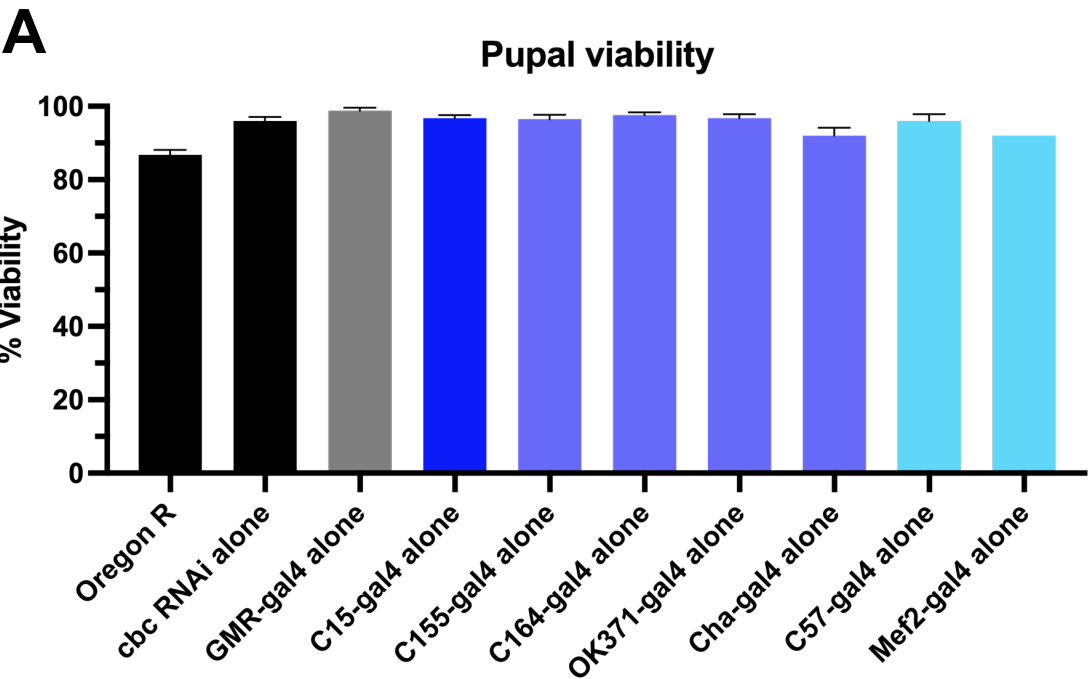


**Fig. S1. Expressing an RNAi element in the absence of gal4 does not affect animal viability.**

(A) Pupal and (B) adult average viability of control RNAi crosses. Oregon R and da-Gal4 alone are in black. The green bars are pre-tRNA cleavage factors; the orange bars are tRNA ligation factors; and the purple bars are healing/sealing pathway factors. For each factor, only the UAS-RNAi element is expressed (and thus there should be no knockdown). For each genotype, n=250 larvae were sorted into 5 vials (biological replicates) of 50 animals each, for 5 independent experiments (except where noted; n=6 or 7 biological replicates (300 or 350 larvae) for certain genotypes). Error bars are SEM.



**Fig. S2. Tissue-specific gal4 drivers do not affect animal viability.**

(A) Pupal and (B) adult average viability of various Gal4 drivers. Oregon R and cbc RNAi alone are in black. The gray bar is a control Gal4 driver, the dark blue bar is a combined neuron + muscle gal4 driver, purple bars are neuron gal4 drivers, and light blue bars are muscle gal4 drivers. For each genotype, n=250 larvae were sorted into 5 vials (biological replicates) of 50 animals each, for 5 independent experiments (except for Mef2, where n=50 larvae were sorted into 1 vial). Error bars are SEM.