

Appendix

Local translome sustains synaptic function in impaired Wallerian degeneration

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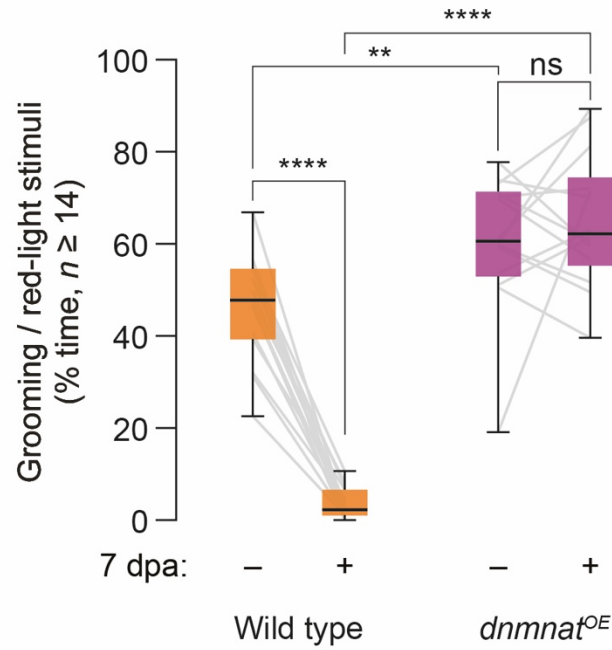
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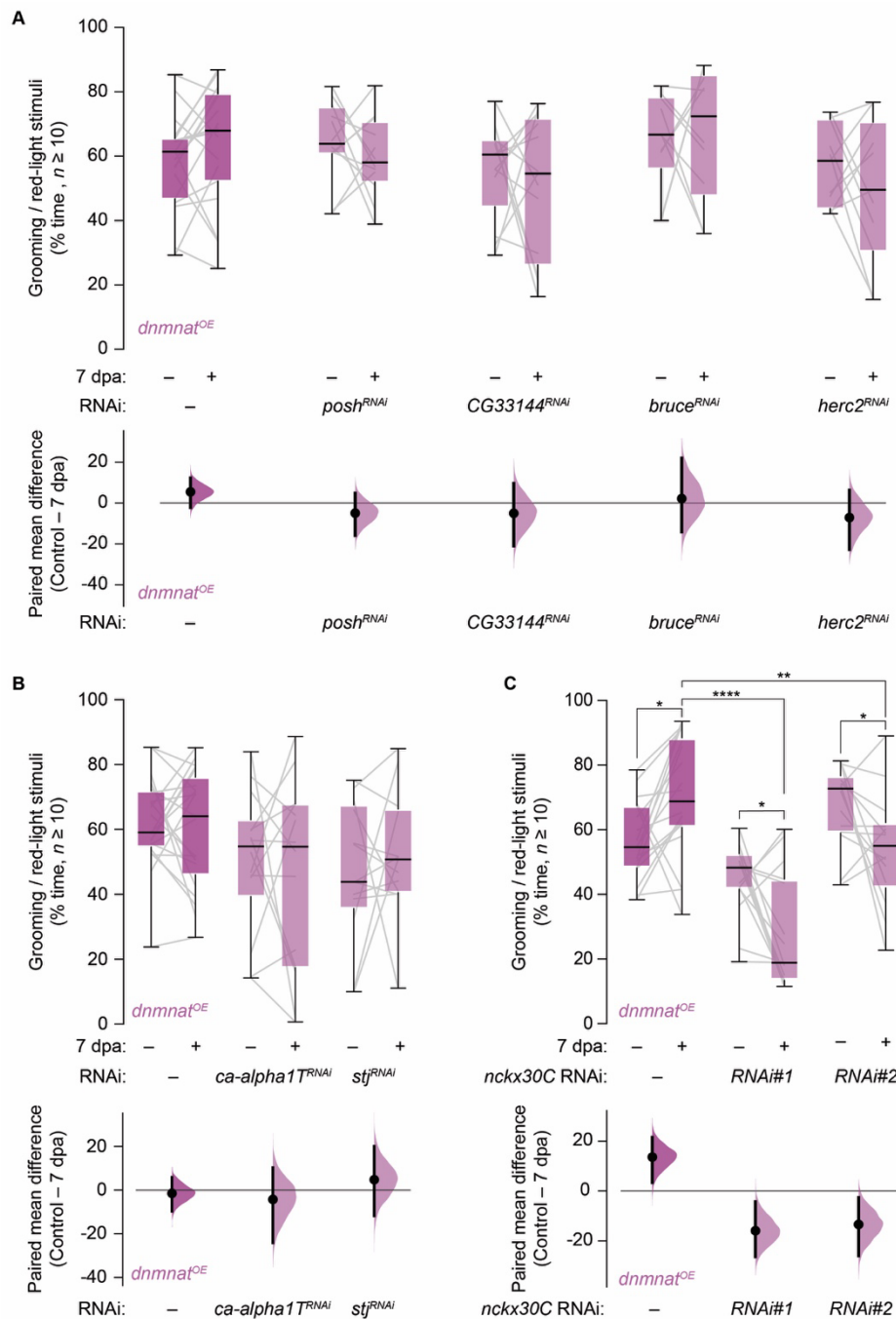
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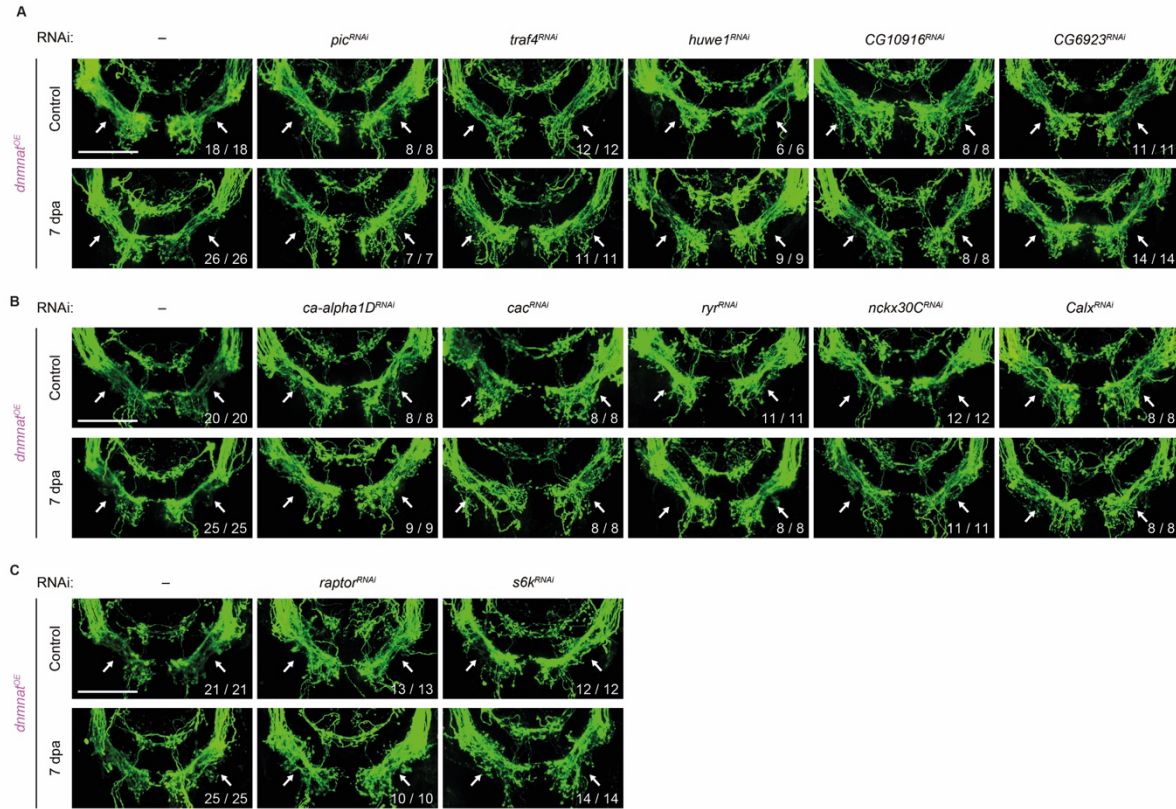
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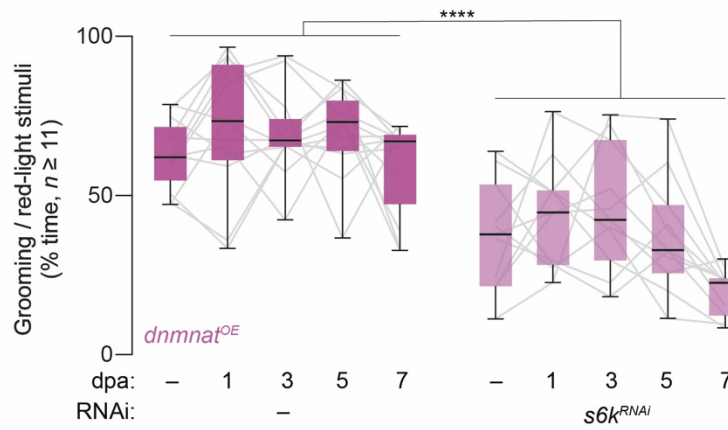
Appendix Figure S1. Evoked antennal grooming mediated by CsChrimson expressed from the X chromosome. Preservation of synaptic function in severed *dnmnat*^{OE} projections at 7 dpa. Grooming in uninjured and injured animals (% time of red-light stimuli; $n \geq 14$ animals). Two-way ANOVA with Sidak's multiple comparisons test; ****, $p < 0.0001$; **, $p < 0.01$.



Appendix Figure S2. Protein ubiquitination and calcium transport candidate screen. **A** Top, protein ubiquitination candidate genes (Grooming as % time of red-light stimuli). Bottom, paired mean difference as bootstrap sampling distribution (dot, mean difference; vertical error bar, 95 % confidence interval, respectively; $n \geq 10$ animals). **B** Top, Ca^{2+} transport candidate genes; bottom, paired mean difference ($n \geq 10$ animals). **C** Top, validation of *nckx30C* by two different RNAi lines (#1 and #2, respectively); bottom paired mean difference ($n \geq 10$ animals). Paired two-tailed t-student and Two-Way ANOVA with Dunnett's multiple comparisons test; ****, $p < 0.0001$; **, $p < 0.01$; *, $p < 0.05$.



Appendix Figure S3. Preserved axonal and synaptic morphology in RNAi-mediated candidate knockdown one week after axotomy. A Examples of GFP-labeled *dnmnat^{OE}* *JO*⁺ mechanosensory axonal projections with protein ubiquitination candidate^{RNAi}. **B** Examples of GFP-labeled *dnmnat^{OE}* *JO*⁺ mechanosensory axonal projections with Ca²⁺ transport candidate^{RNAi}. **C** Examples of GFP-labeled *dnmnat^{OE}* *JO*⁺ mechanosensory axonal projections with *raptor^{RNAi}* and *s6k^{RNAi}*. Top and bottom, control and 7 dpa, respectively. Arrows, projections; quantification, brains with preserved *JO*⁺ projections / total brains analyzed (*n*, bottom right corner). Scale bar, 50 μ m.



Appendix Figure S4. RNAi-mediated knockdown of *s6k* progressively reduces preserved synaptic function after axotomy. Grooming as % time of red-light stimuli ($n \geq 11$ animals). Two-way ANOVA; ****, $p < 0.0001$.