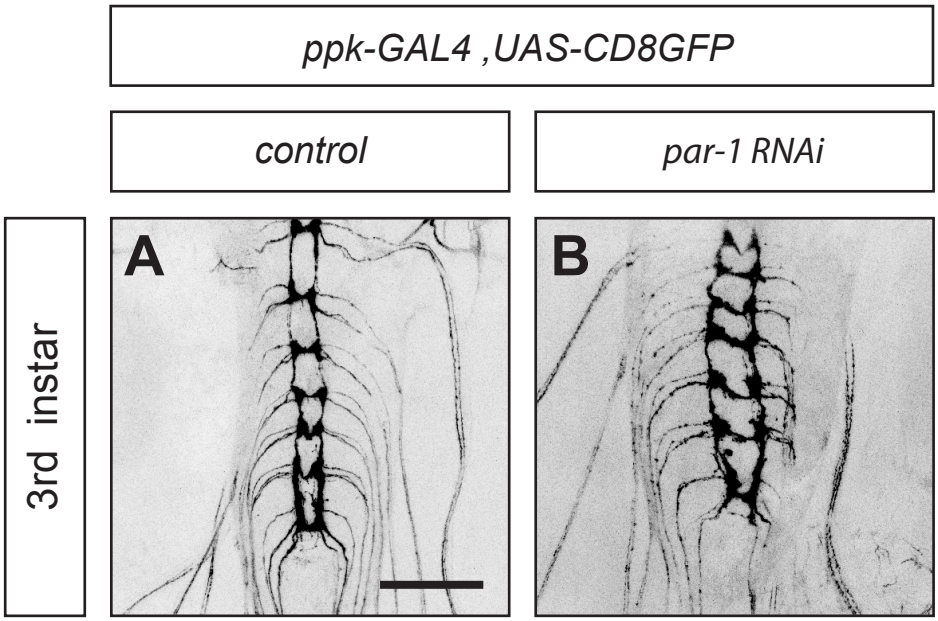
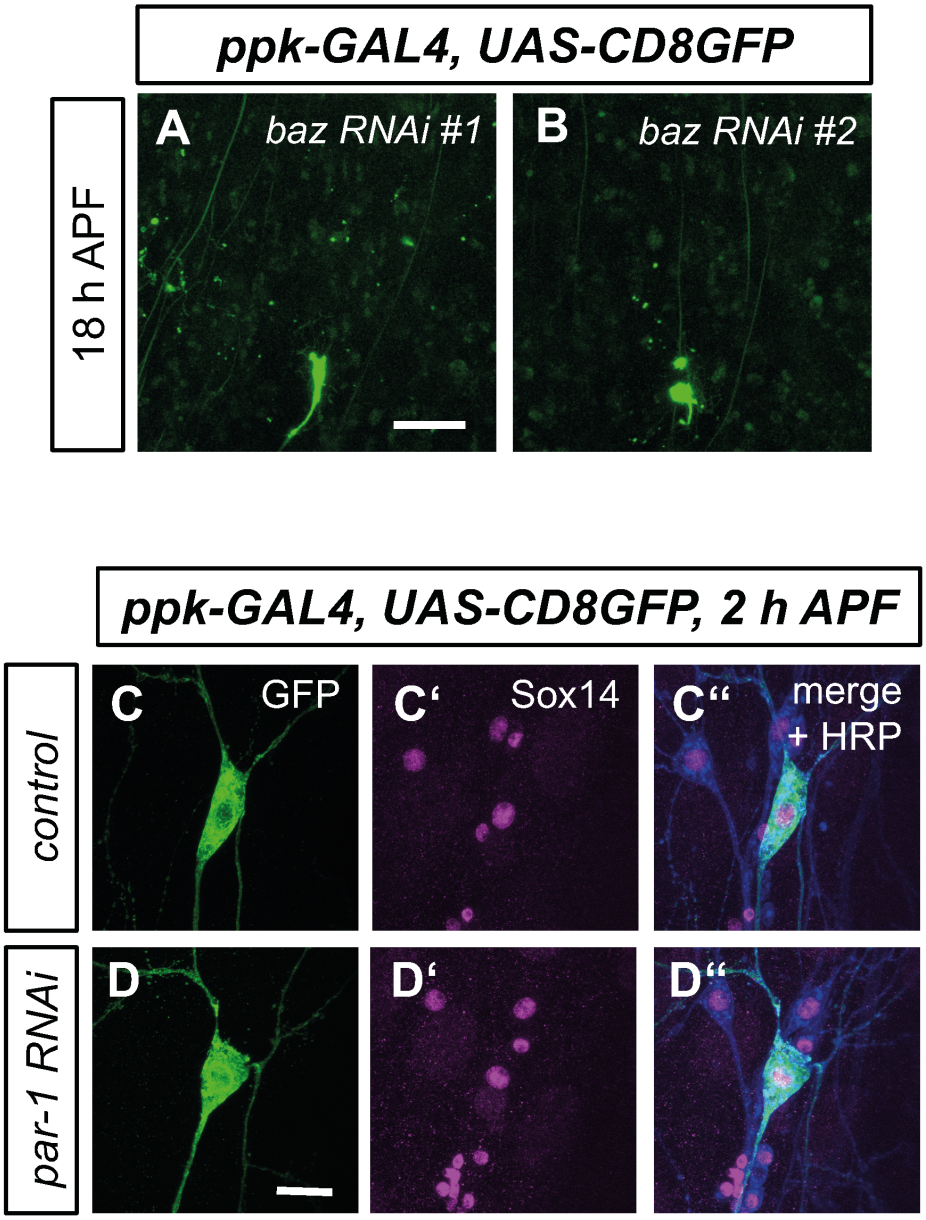
Table of Content Appendix Figures

Herzmann_Appendix Figure S1



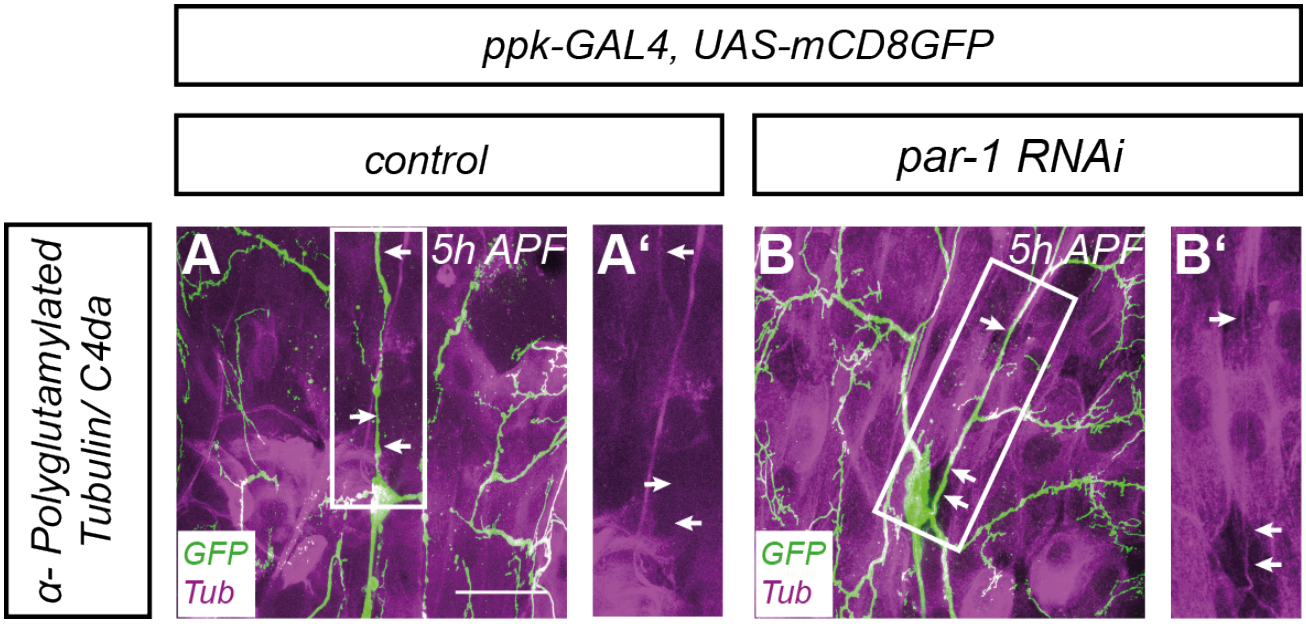
Appendix Figure S1. Class IV da neuron axons in control and upon *par-1 RNAi*. Axons of control (**A**) c4da neurons and c4da neurons expressing *par-1* RNAi (**B**) were labeled by GFP under the control of *ppk-GAL4* and imaged live in third instar larvae. Scale bar, 100 μm.

Herzmann_Appendix Figure S2



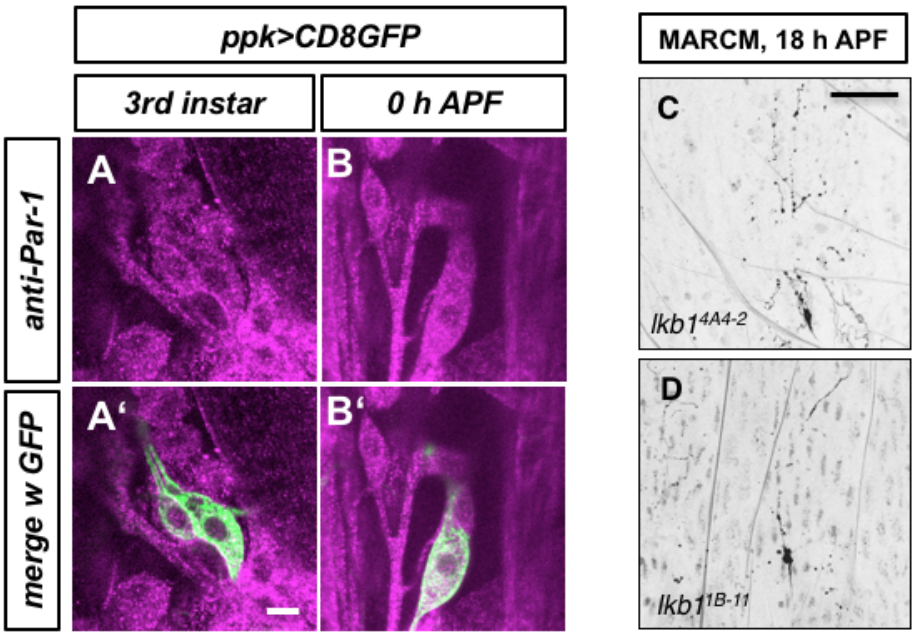
Appendix Figure S2. Bazooka is not required for dendrite pruning, and PAR-1 does not affect Sox14 expression. A, B Two different RNAi lines targeting bazooka do not affect c4da neuron dendrite pruning at 18h APF. **A** Bazooka RNAi #1 (NIG 5055R-1), 0/27 neurons with dendrites attached to the soma. **B** Bazooka RNAi #2 (VDRC 2914), 1/35 neurons with dendrites attached to the soma. **C – C``** Sox14 expression at 2 h APF in control c4da neurons. **D – D``** Sox14 expression at 2 h APF in c4da neurons expressing *par-1* RNAi.

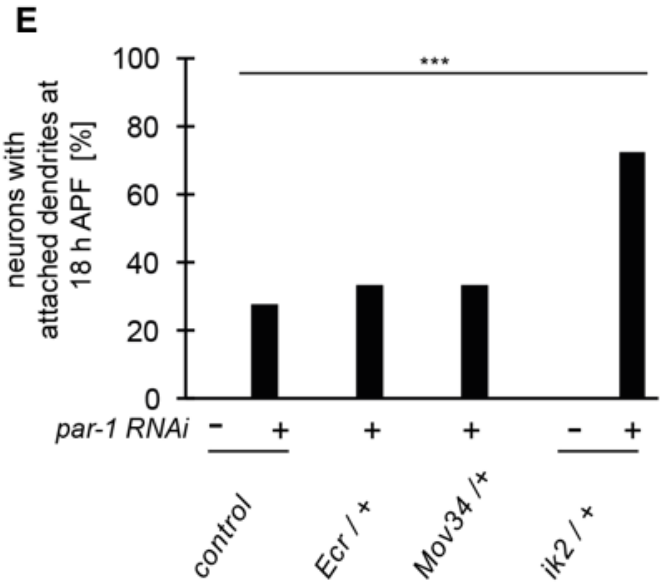
Herzmann_Appendix Figure S3



Appendix Figure S3. PAR-1 knockdown leads to accumulation of microtubules containing polyglutamylated α-tubulin during c4da neuron dendrite pruning. C4da neuron morphology at 5 h APF was visualized by UAS-CD8GFP expressed under *ppk-GAL4*, and microtubules were labeled by an antibody against polyglutamylated α-tubulin. Figures **A, B** show merged images of GFP expression with anti-polyglutamylated α-tubulin staining. Stainings of polyglutamylated α-tubulin in boxed regions are shown enlarged on the right (**A, B'**). The positions of c4da neuron dendrites is indicated by arrows. **A** Control c4da neuron. **B** C4da neuron expressing par-1 RNAi. The scale bar is 50 μm.

Herzmann_Appendix Figure S4





Appendix Figure S4. Assessment of potential PAR-1 activation mechanisms.

A, **B** Expression of endogenous PAR-1 in c4da neurons at the third instar (**A**) and the white pupal stage (**B**). Lower panels **A'** and **B'** show merge with GFP expressed under *ppk-GAL4*.

C, **D** Loss of *LKB1* causes mild dendrite pruning defects. C4da neuron mutant MARCM clones of two *lkb1* alleles are shown ($lkb1^{4A4-2}$, 23% with dendrites attached to the cell body at 18 h APF; $lkb1^{1B-11}$, 20% with dendrites attached to the cell body at 18 h APF). **E** Heterozygosity of *ik2* (allele $ik2^{alice}$), but not of EcR (EcR^{31}) or the proteasome subunit Mov34 ($mov34^{k08003}$) enhances the pruning defect caused by *par-1* RNAi. *** P<0.0005, Fisher's exact test.