Supplemental Materials

Molecular Biology of the Cell

Tsai et al.

Drosophila MIC60/Mitofilin Conducts Dual Roles in Mitochondrial Motility and Crista Structure.

Pei-I Tsai[1,3], Amanda M. Papakyrikos[1,2,3], Chung-Han Hsieh[1], Xinnan Wang[1]*

1. Department of Neurosurgery, 2. Graduate Program in Developmental Biology, Stanford University School of Medicine, Stanford, CA, U.S.A.

3. Contributed equally

* Correspondence: xinnanw@stanford.edu

Supplementary Figure Legends

Figure S1. Phenotypes of dMIC60 RNAi flies. (A) qRT-PCR results from 48-hr APF pupae. n=9 replicates from 3 independent experiments. (B) Whole cell lysates of third instar larvae were blotted as indicated, for verification of anti-DMiro. (C) HEK cells were immunoprecipitated (IP) with indicated antibodies and the immuneprecipitates were blotted as indicated. The results were repeated three times. (D-G) Quantifications of the normalized bouton number (E), branch number (F), and bouton size (G) at muscle 6/7 hemisegment A2 for *Actin-GAL4* driven knockdown of *dMIC60*. Representative NMJ boutons are shown in confocal stack images in (D) immunostained with anti-HRP. Scale bars: 50 μm. For (E-F), n=11-15 NMJs from 11-15 larvae. The muscle sizes are not significantly different between the two genotypes (P=0.5). For bouton size (G), 376-394 boutons were measured from n=4 NMJs from n=4 larvae. (H-I) Bouton number, normalized to muscle size at muscle 6/7 hemisegment A2, for *MHC-GAL4* (H) or *Elav-GAL4* (I) driven knockdown of *dMIC60*. n=8-15 NMJs from n=8-15 larvae. (J) FM1-43 labeling at muscle 4 hemisegment A3 of third instar larvae. The fluorescent intensity was measured and normalized to the mean of the control, "*Actin-GAL4*". n=11-12 NMJs from 8 larvae.

Supplemental Fig. 1