

Figure S1. Frequency distribution of pixel intensities for anti-ubiquitin staining in flight muscles of *parkin* mutants and *ttv/+; park_121/park_1animals*. The frequency plots represent the averages of three independent experiments, with n=15 for each genotype. Note that *park_121/park_1* animals showed a shift, with more pixels with elevated brightness or intensity compared to controls (*park_1/+*). The distribution of pixel intensities is shifted toward the control distribution when animals are heterozygous for *ttv* (*ttv00681/+; park_121/park_1*). The frequency distribution of *park_1/park_1* is significantly different from *ttv00681/+; park_1/park_1* (p<0.001, Wilcoxon Signed Ranked Median Test).