Supplementary Data.
Cherra, Steer, Gusdon, Kiselyov & Chu.
Mutant LRRK2 elicits calcium imbalance and depletion of dendritic mitochondria in neurons.

**Supplemental Figure S1. Image-based mitochondrial content measurements.**
(A) Mitochondrial content was measured in the soma, dendrites, and axons of mouse cortical neurons co-expressing mitochondrially targeted COX8-GFP (green) and human LRRK2, and immunostained for MAP2 (red). (B) Dendrites of transfected neurons were manually traced and the dendrite area automatically quantified using ImageJ and outlined for mitochondrial measurements. (C) The green channel was extracted to grayscale. A uniform background subtraction was applied to the greyscale image, which was then thresholded and converted to binary (D). The dendritic outlines were applied to the binary image, and the mitochondrial area was quantified as green pixels encompassed by the dendritic outlines. (E) The mitochondrial area was divided by the corresponding dendrite area to calculate the mitochondrial content for each dendrite, which was then averaged among all dendrites per neuron. Similar analytical procedures were utilized for the quantification of somatic and axonal mitochondrial content.