**Supplementary Figure 1**. Cross-sectional area of axons in nondiabetic and diabetic mice. ***A***, Area of myelinated axons in proximal and distal nerve segments, ***B*** Area of unmyelinated axons in proximal and distal nerve segments. ††† $p<0.01$, Kruskal-Wallis test followed by post-hoc Dunns multiple comparison test.

**Supplemental Figure 2**. Diabetic axon morphology. ***A***, Three large axons, Aβ by size, from distal diabetic nerve segment (magnification 6300x). Right axon does not exhibit axon-myelin separation, but demonstrates a dense neurofilament network and a several mitochondria (arrows). At top, middle, part of a larger axon demonstrates a dense neurofilament network and small axon-myelin separation (arrowhead). At far left, another myelinated axon demonstrates axon-myelin separation (arrowheads) and part of a Schwann cell (S) which has reduced components in the cytosol. Above the left axon is a bundle of unmyelinated axons containing two degenerated axons (UA). Degenerating unmyelinated axons were uncommon in nerve sections. The Schwann cell surrounding these unmyelinated axons stains more intensely than the more normal bundle of unmyelinated axons to the right. ***B***, Larger axons (Aβ by size) and a smaller axon (Aδ by size) display differing degrees of axon-myelin separation (arrowheads; magnification 6,510x). These axons exhibit a dense neurofilament network and numerous mitochondria in their axoplasm. Lower right axon demonstrates a Schwann cell (S) with dense cytosol, dilated vesicles and smooth endoplasmic reticulum network suggestive of increased activity. Upper right axon also demonstrates a small amount of Schwann cell cytoplasm (S) with two large vacuoles.