

Supplemental Table ST1.

Summary of ultrastructural damage criteria used for subcellular compartments in this study

Organelle	Damage Criteria
Mitochondria	Swelling, disruption of inner and/or outer membranes, vacuolization, disorganization and/or >75% of mitochondrial area showing lack of cristae, or myelin figures within the matrix and/or associated with the inner and/or outer mitochondrial membranes.
Peroxisomes	Focal loss of the unit membrane and/or decrease in intensity or “ghosting” of the granular matrix.
Autophagy	Three distinct stages of autophagy were observed and quantitated: <ol style="list-style-type: none"> 1. Autophagic vacuole – a double-membrane bound body containing organelles and/or cytoplasmic material sequestered for degradation. 2. Autolysosome or Autophagolysosome – a later stage of digestion when an autophagic vacuole has fused with a primary lysosome containing acid hydrolases. Autolysosomes were observed with a thick single membrane and an enclosed moderate to dark granular matrix with areas of very electron-dense inclusions. 3. Lipofuscin and residual bodies – late and final stages of autophagy, distinguished by a rounded or irregular shape with alternating electron-dense and lucent areas of undigested lipid and other residues
Lipid	Round, electron-lucent structures in the cell cytoplasm. The total area of lipid in the cell cytoplasm was measured and represented as a percentage of total cellular area (data not shown).
Myelin Figures	Electron-dense, lamellar structures indicative of membrane injury. The total area of myelin figures not associated with mitochondria, peroxisomes, or autophagy was determined and expressed as a percentage of total cellular area (data not shown).
Nucleus	Chromatin condensation and/or fragmentation, or formation of apoptotic bodies.
Nucleolus	Fragmentation and separation of granular and fibrillar components.