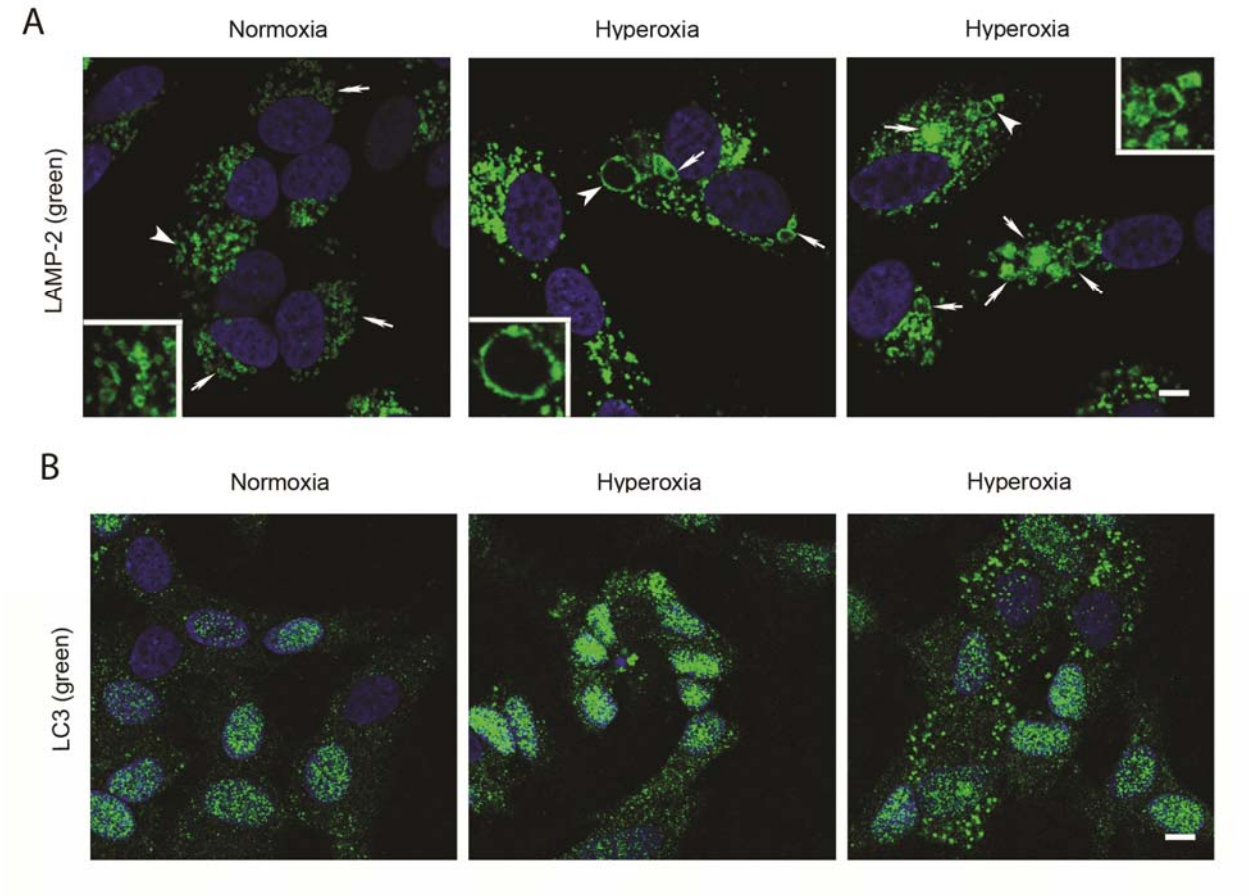
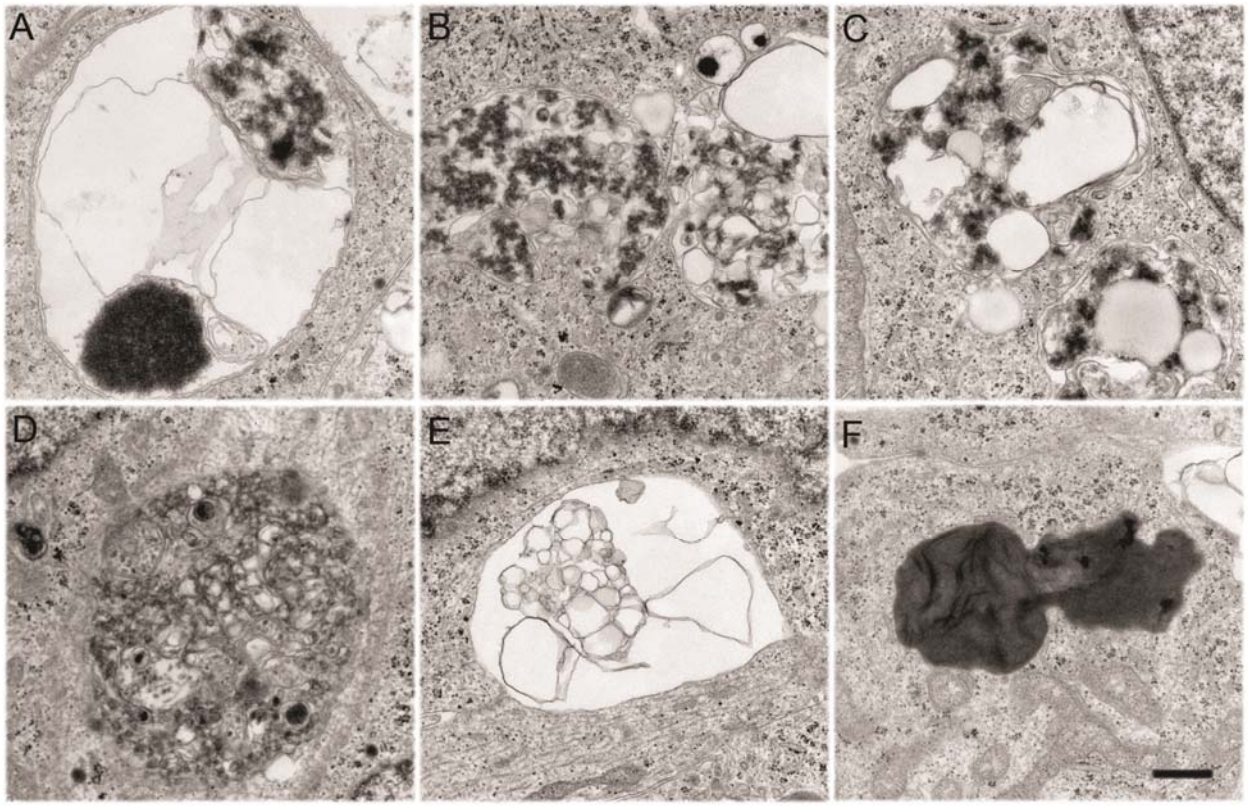
Supplementary figures and figure legends

Supplementary Figure 1.



Supplementary Figure 1. (A) Confocal microscopy images of APPswe cells exposed to normoxia or hyperoxia for 5 days and immunostained for LAMP-2 (green fluorescence). Exposure to hyperoxia resulted in increased number and size of lysosomes, often seen as ring-like profiles due to immunostaining of the lysosomal membrane (arrowheads and corresponding insets). Nuclei were stained by DAPI (blue fluorescence). Bar, 20 μm. (B) Confocal microscopy images of APPswe cells cultured in normoxia or hyperoxia and immunostained for LC3. Hyperoxia-exposed cells showed increased LC3 immunoreactivity and more granular LC3 staining pattern, indicating autophagy enhancement. Nuclei were stained by DAPI (blue fluorescence). Bar, 30 μm.

Supplementary Figure 2.



Supplementary Figure 2. Different types of autophagic vacuoles in APPswe cells exposed to hyperoxia. (A, B, C) Autophagosomes, or early autophagic vacuoles, are double membrane bounded and contain different types of sequestered intracellular material. The presence of inner membrane suggests that it is not yet degraded by lysosomal enzymes; (D, E, and F) Autophagolysosomes, or secondary lysosomes, are single membrane bounded and contain sequestered material at different stages of degradation by lysosomal enzymes. (E) A lucent autophagic vacuole, with apparently almost complete degradation of material, while (F) is a dense vacuole, containing mostly indigestible material (lipofuscin). Bar, 500 nm. n=3.