

Supplementary information

α - Linolenic acid modulates phagocytosis of extracellular Tau and induces microglial migration

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Figure S1. Internalization of extracellular Tau in microglia. Internalization of extracellular Tau in microglia induced by ALA. N9 cells were treated with extracellular Tau monomer and aggregates along with the ALA. After 24 hours of treatment cells were stained for Tau (red), Iba-1 (green), DAPI. A) Individual panel of 2D immunofluorescence images of Tau internalization. Panel contains Tau, Iba-1 DAPI, DIC and merge images. B) Orthogonal view of immunofluorescence images of Tau internalization. The images are represented with x and y-axis indicating the position of Tau in microglia. Scale bar is 20 μ m.

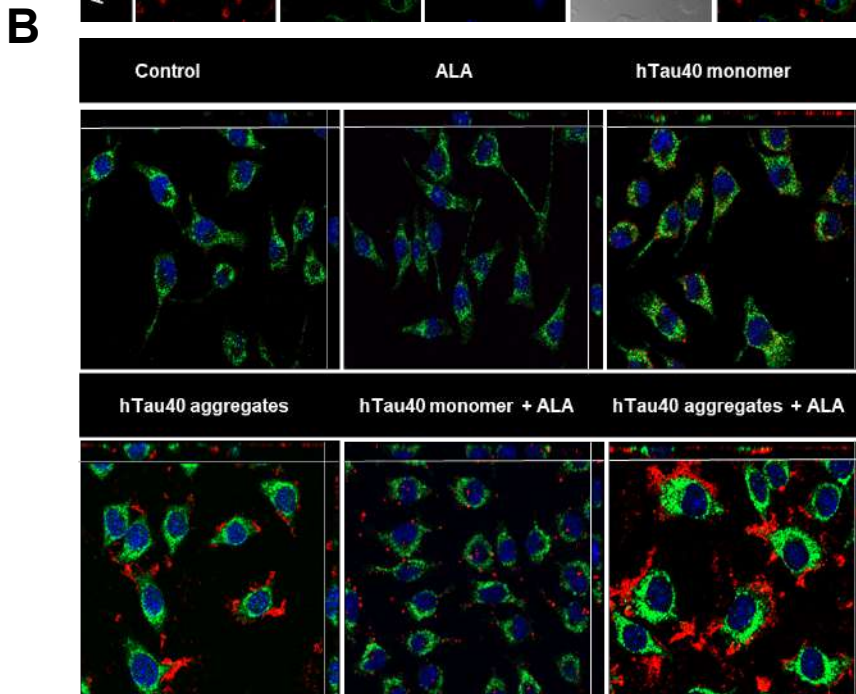
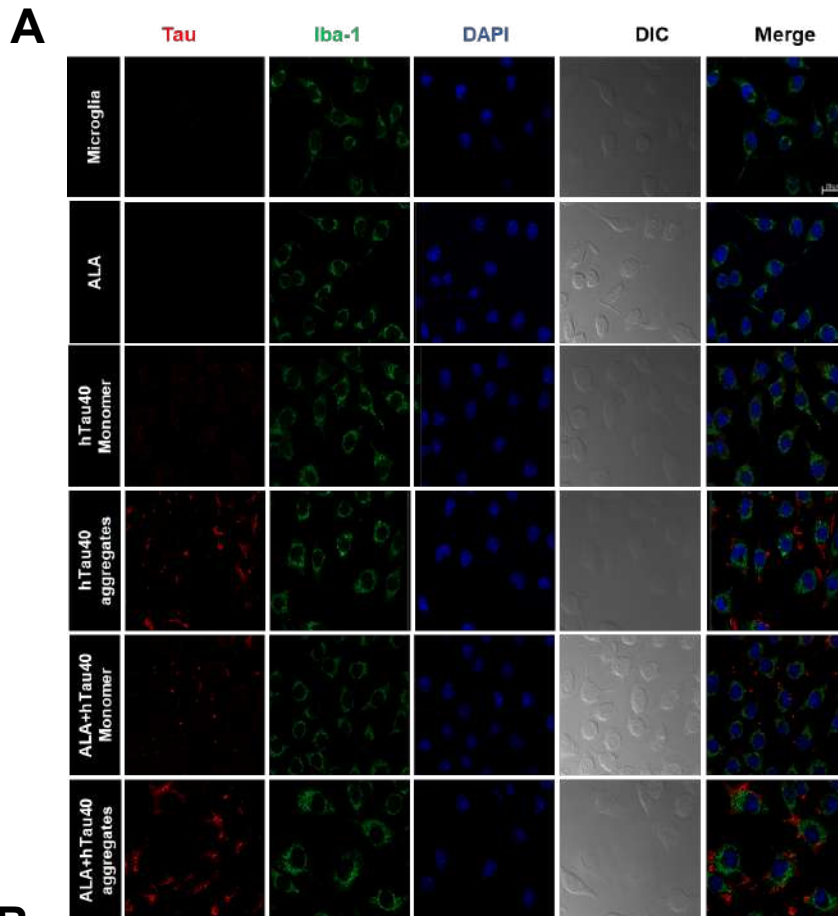
Figure S2. α -Linolenic acids enhance degradation of internalized Tau via lysosome-mediated degradation Internalization of extracellular Tau in microglia induced by ALA was studied for the lysosome mediated degradation via LAMP-2A lysosomal marker. N9 cells were treated with Tau monomer aggregates and ALA and stained for LAMP-2A (green), Tau (red) and DAPI. A)

Immunofluorescence images showing orthogonal view of the merge image of Tau and LAMP-2A staining. The x and y axis of the orthogonal view indicates position of Tau and its colocalization with LAMP-2A. Scale bar is 20 μm .

Figure S3. Repolarization axis of microtubule organizing center (MTOC) in microglia on ALA exposure. Polarization of axis of MTOC in microglia was studied as one of the property of migratory cells. Repolarizations of MTOC positions were studied upon ALA exposure. A) Immunofluorescence images showing separate panel for microtubule (red), DAPI and DIC. Merge image with DIC indicates positions of MTOC in cell. Scale bar is 20 μm .

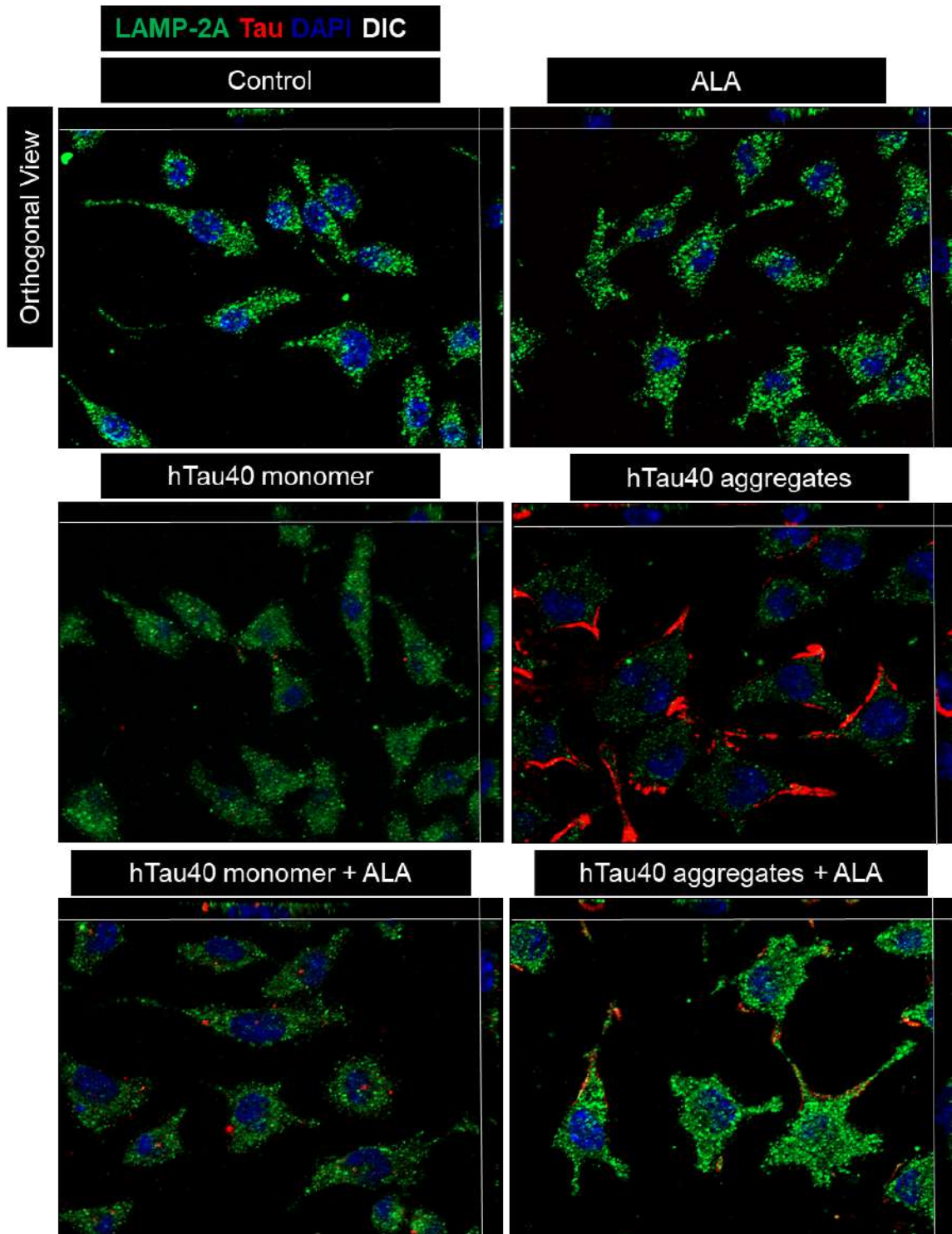
Supplementary Figure 1

Internalization of Tau in microglia



Supplementary Figure 2

α -Linolenic acid enhance degradation of internalized Tau
via lysosome-mediated degradation



Supplementary Figure 3

Repolarization axis of Microtubule organizing center (MTOC)
in microglia on ALA exposure

