

Fig. 1. (A) SDS page gel image and (B) size exclusion chromatography of the purified α -syn monomer. Gel and chromatography results confirm the pure α -syn monomer with ~14kDa of molecular weight. (C) ThT aggregation kinetics of α -syn fibrils formation in the presence of neuronal (red), astrocytes (green), PD-associated (brown), and SV membranes mimetics (orange).

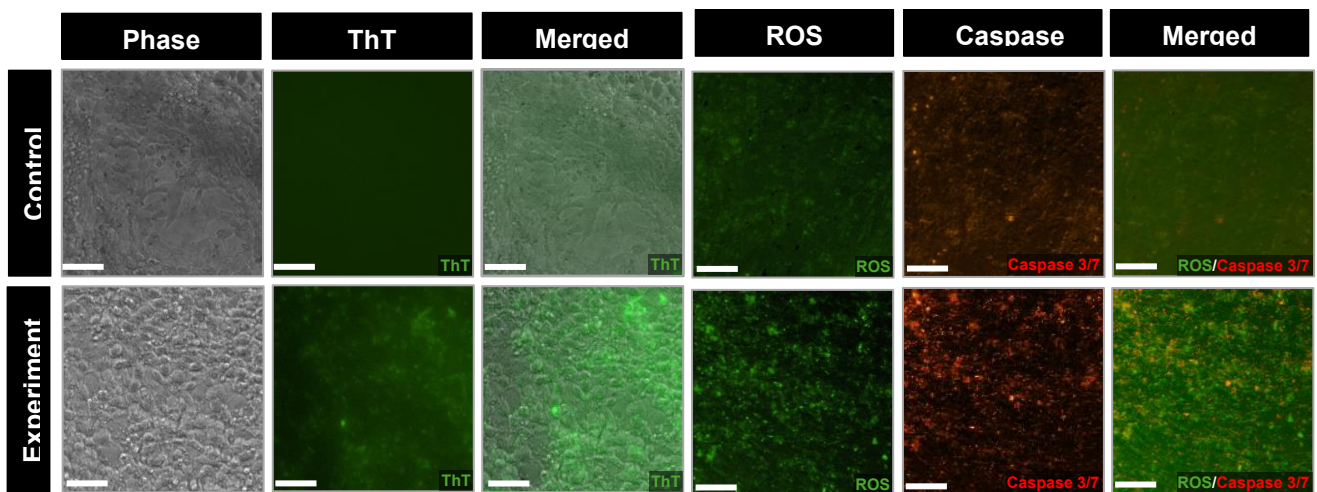


Fig. 2. Exposure our brain model to membrane-associated α -syn fibrils led to their uptake by SH-SY5Y cells. This neuronal internalization was assessed by ThT fluorescence. Elevated production of reactive oxygen species (ROS) and activation of caspase 3/7 are more pronounced with the treatment of α -syn fibrils grown with PD-associated membranes.

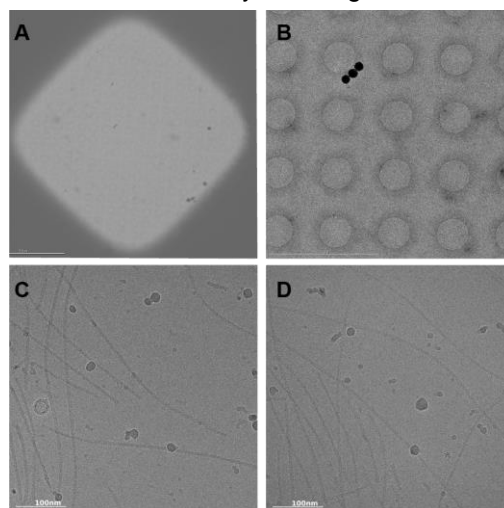


Fig. 3. Examples of cryo-EM images of α -syn amyloid fibrils grown in the presence of PD-associated membranes, obtained on a Glacios microscope. (A) Representative images of squares and (B) holes of the grid, and (C, D) frozen fibrils. The images confirm the optimal ice thickness and the distribution of α -syn amyloid fibrils for data collection.