

# ESI

## **Photo-excited Toluidine blue inhibits Tau aggregation in Alzheimer's disease**

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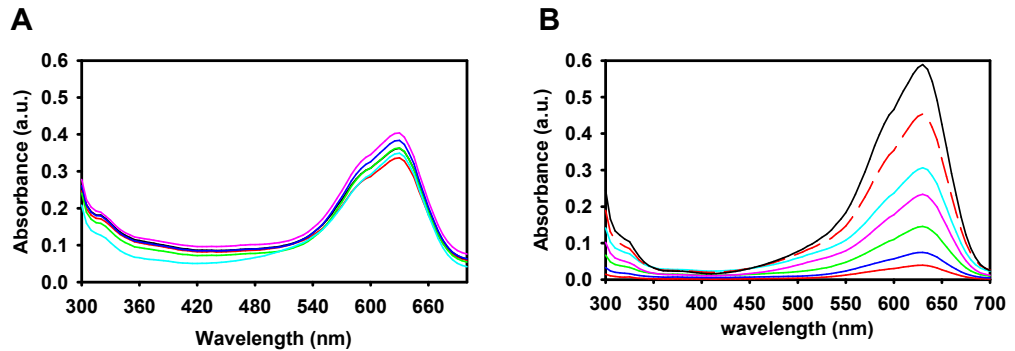
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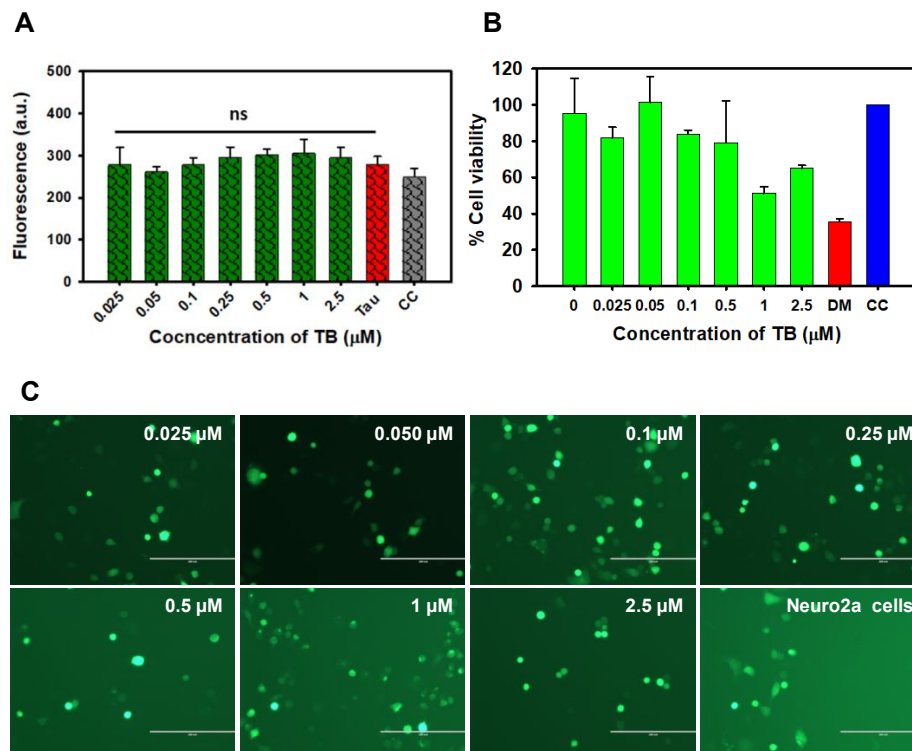
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# Supplementary 1



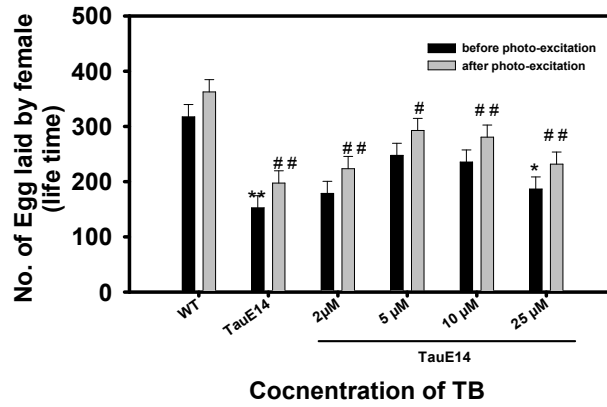
**Supplementary figure 1: The UV absorption curve of TB.** A) The hypochromic shift in UV-visible absorption spectra of TB in presence of various concentration of Tau. B) The UV spectrum showing the absorption maxima 630 nm.

# Supplementary 2



**Supplementary figure 2: The biocompatibility of TB.** A) The DCFDA assay indicated the extent of ROS production by TB in Neuro2a cells treated with 2.5  $\mu\text{M}$  of Tau aggregates. B) The effect of TB on cell viability was analysed by MTT assay. TB was not cytotoxic at concentration as high as 0.5  $\mu\text{M}$ . C) Fluorescence microscopic analysis of Neuro2a cells revealed the no difference in DCFDA fluorescence in TB treated cells and control.

## Supplementary 3



**Supplementary figure 3. TB and PE-TB increased the longevity of transgenic *Drosophila* flies.** The fecundity assay was carried out to check the fitness of flies. The bell shaped pattern indicated that 5 μM of PE-TB exposure increased egg laying or reproducibility in females.