**Supplementary Materials**

**Investigation of the Redox State of Magnetite upon Aβ Fibril Formation or Proton Irradiation; Implication of Iron Redox Inactivation and β-Amyloidolysis**

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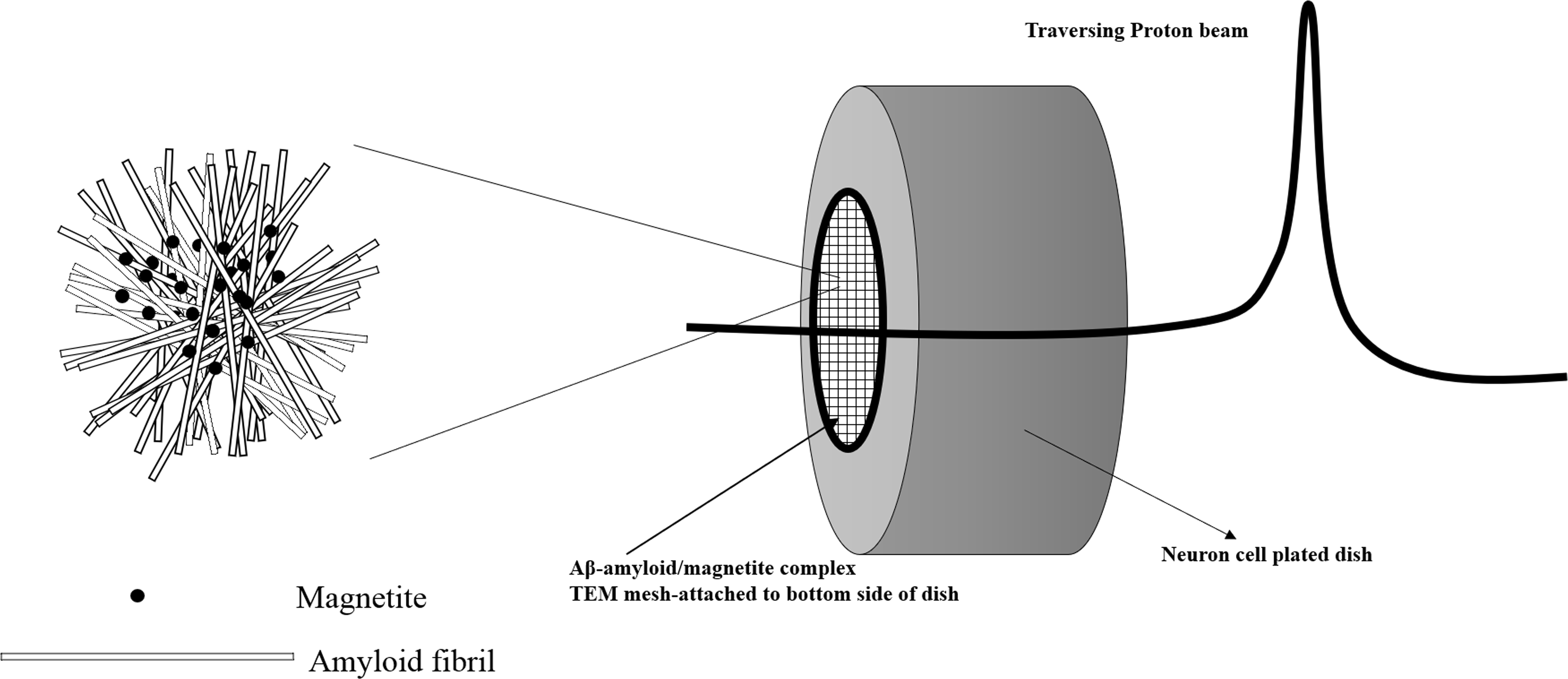


Figure S1. Schematic diagram depicting separate compartments of neuronal cells and β-amyloid/magnetite fibrils on the TEM mesh that was irradiated by a 100 MeV traversing proton beam.

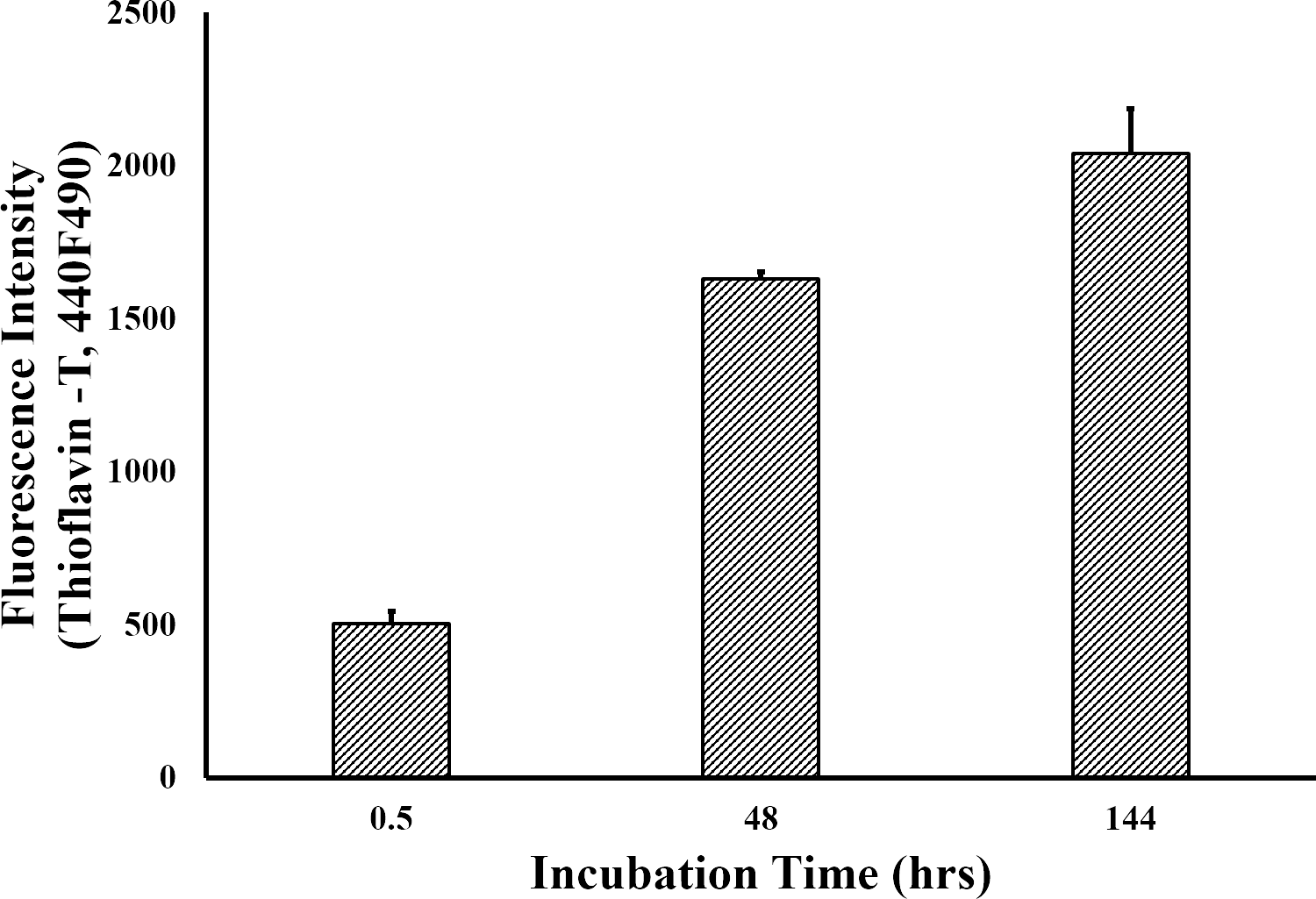


Figure S2. Aβ fibrillization was assessed by fluorescence evaluation of the ThT binding to the magnetite-amyloid complex over a 6-day incubation period. Thioflavin T-fluorescence was enhanced upon for fibril formation.