Electronic Supplementary Material (ESI) for Journal of Materials Chemistry B.

Supporting Information

Efficient Suppression of Amyloid-*β* Peptide Aggregation and Cytotoxicity with Photosensitive Polymer Nanodots

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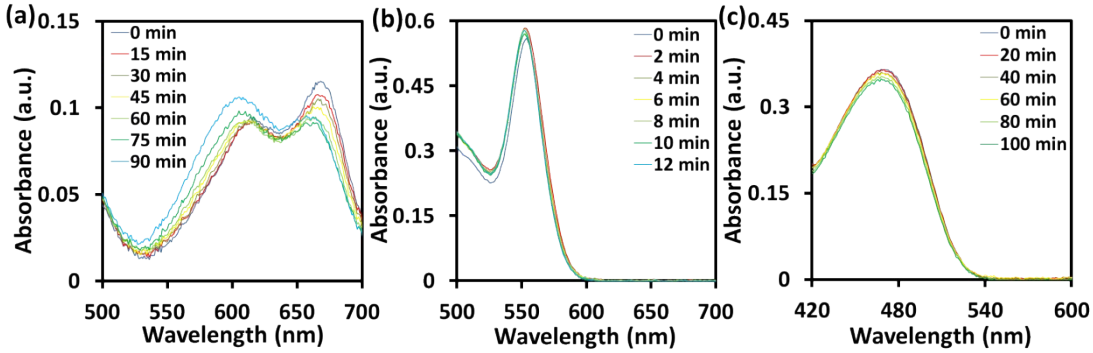

Fig. S1 The absorbance spectra of (a) MB-Pdots, (b) RB-Pdots, and (c) RF-Pdots under different irradiation time.

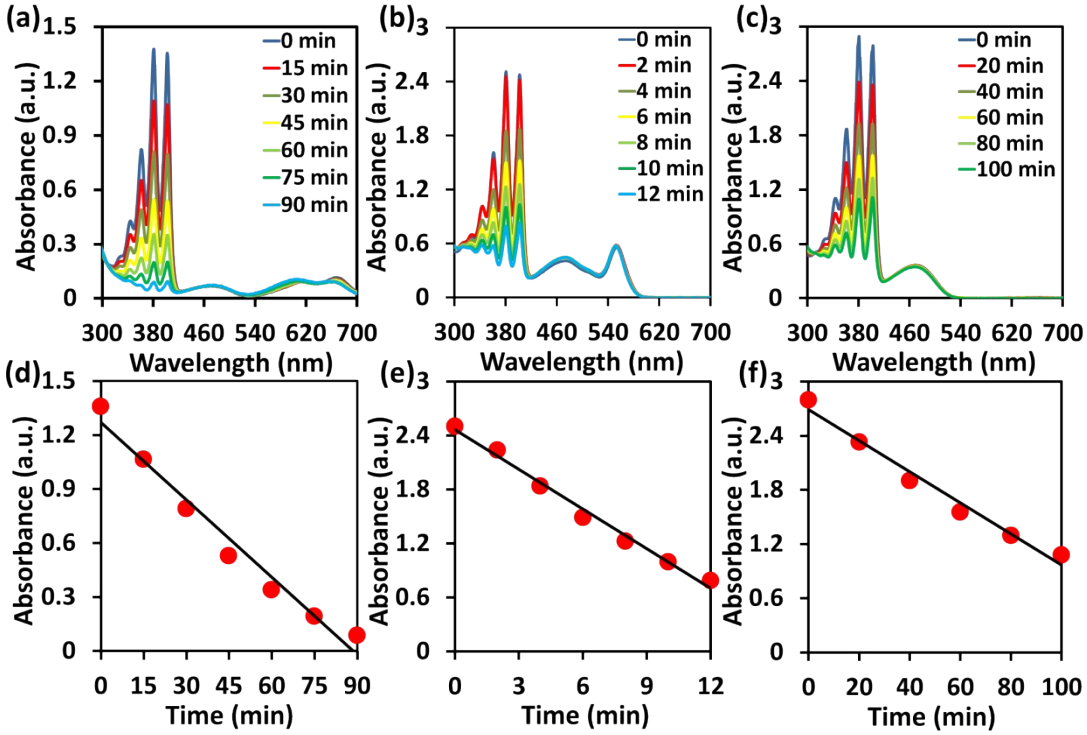

Fig. S2 (a-c) Absorbance intensity of ABDA with different irradiation time in the presence of MB-, RB-, and RF-Pdots respectively. (d-f) Absorbance intensity of ABDA at 380 nm for the MB-, RB-, and RF-Pdots as a function of the irradiation time.

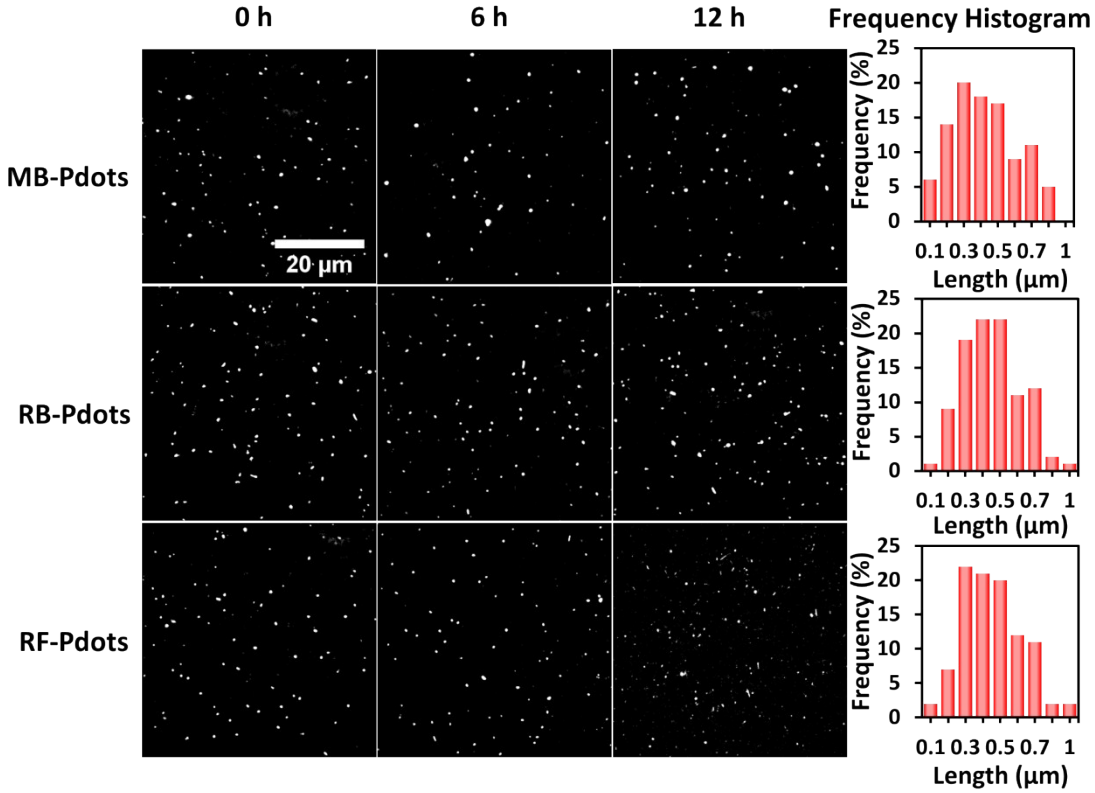

Fig. S3 Fluorescence microscopic images and the length distributions (right row) of A$\beta_{1\text{-}40}$ growth solution at different incubation time (0, 6 and 12 h) after adding MB-Pdots (30 μg/mL), RB-Pdots (30 μg/mL) and RF-Pdots (30 μg/mL).

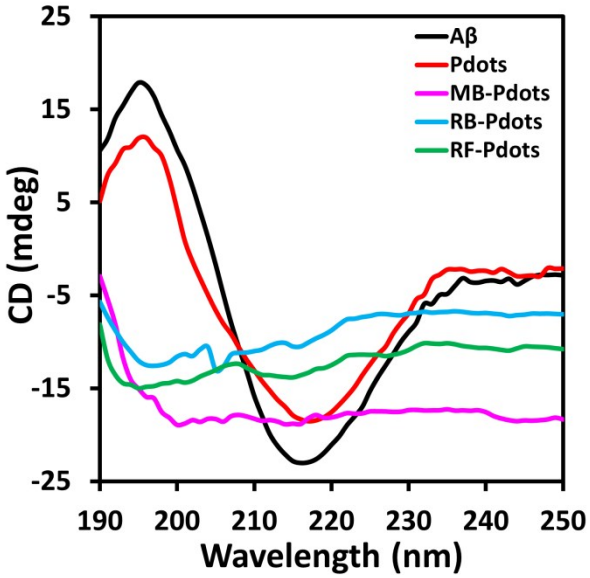

Fig. S4 The CD spectra of A$\beta_{1\text{-}40}$ growth solution (black), the mixture of A$\beta_{1\text{-}40}$ growth solution with Pdots (red), MB-Pdots (purple), RB-Pdots (blue) and RF-Pdots (green) at 24 h.

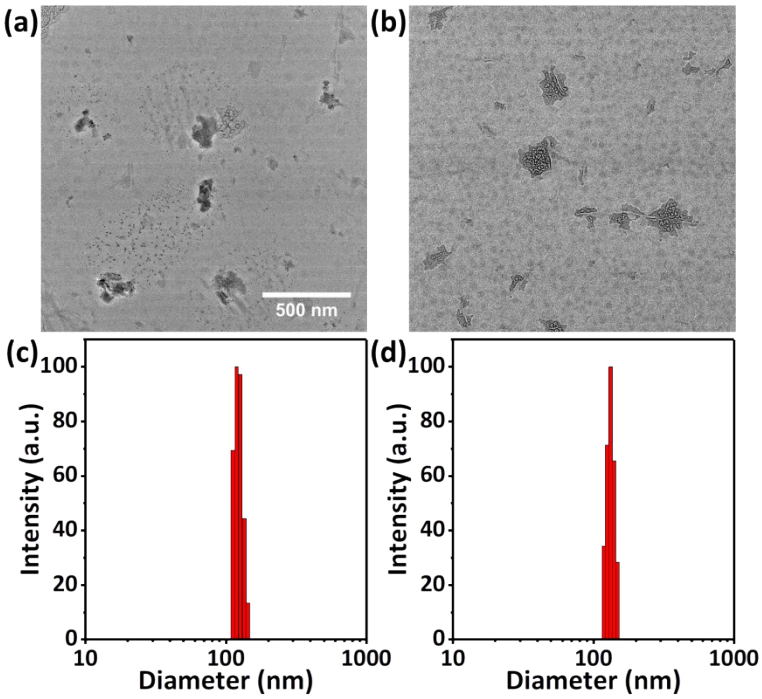

Fig. S5 TEM image of A$\beta_{1\text{-}40}$ treated with MB-Pdots (a) and RF-Pdots (b) under irradiation and followed by incubation for 24 h at 37 °C, respectively. DLS size distribution of A$\beta_{1\text{-}40}$ treated with MB-Pdots (c) and RF-Pdots (d) under irradiation and followed by incubation for 24 h at 37 °C, respectively.

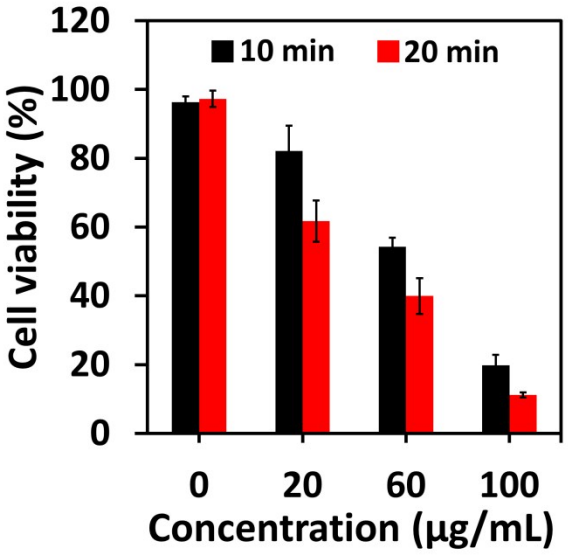

Fig. S6 The cellular cytotoxicity analysis. PC12 cells were incubated with variable concentrations of RB-Pdots under different irradiation time.

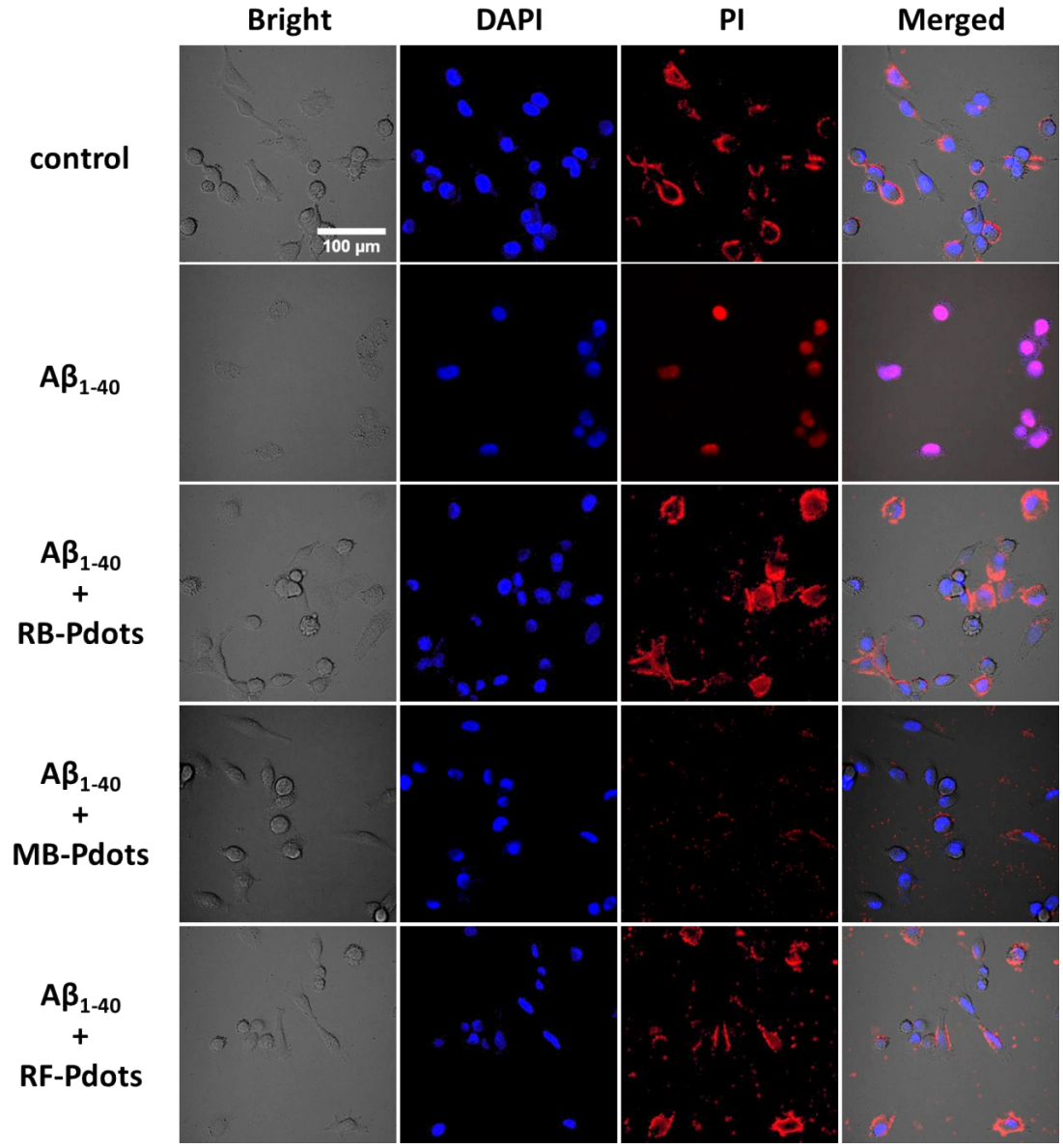

Fig. S7 Confocal microscopic characterizations of the cytotoxicity effect of A$\beta_{1\text{-}40}$ aggregates, the mixture of A$\beta_{1\text{-}40}$ monomers and functional Pdots toward PC12 cells.