SUPPORTING INFORMATION

Related to the manuscript "Photo-inhibition of Aβ fibrillation mediated by a newly designed fluorinated oxadiazole"

Figure S1: Kinetic profile of ThT (12 μM) fluorescence emission (λ_{exc} 450 nm, λ_{em} 484 nm) of 50 μM $A\beta_{1\text{-}40}$ sample. Data show an initial lag phase with a poor signal increase followed by an exponential raise of the fluorescence. The first part of the signal can be related with the formation of species with low ThT affinity (small aggregates) followed by the formation of species at high ThT affinity (fibers). This hypothesis is confirmed by far-UV circular dichroism experiments. In fact, the initial random coil structure observed in the early state was substituted by the typical spectrum of β-sheet amyloid structure (figure 5 in the text).

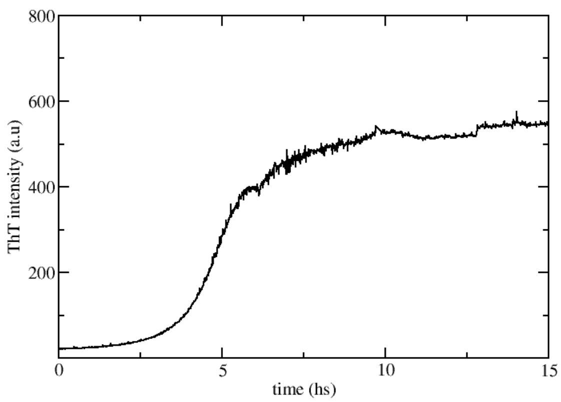

FIGURE S2: Kratky plots relative to SAXS data at the final stage for $A\beta_{1\text{-}40}$ (empty squares) and for $A\beta_{1\text{-}40}$ with oxadiazole **3** prepared under photo-stimulation (empty circles). The bell shape of Kratky plot for $A\beta_{1\text{-}40}$ alone indicates the existence of compact objects in solution, confirming the presence of structured fibrils in solution. On the other side, the lack of a peak and the slight increase of the signal at higher Q values reveal the presence of extended molecules, as unfolded peptides [see: "X-ray solution scattering (SAXS) combined with crystallography and computation: defining accurate macromolecular structures, conformations and assemblies in solution" C. D. Putnam, M. Hammel, G. L. Hura and J. A. Tainer. Quarterly Reviews of Biophysics. Volume 40, Issue 03, 2007, pp 191-285. and O. Glatter, and O. Kratky, "Small-Angle X-Ray Scattering", Academic Press (1982).].

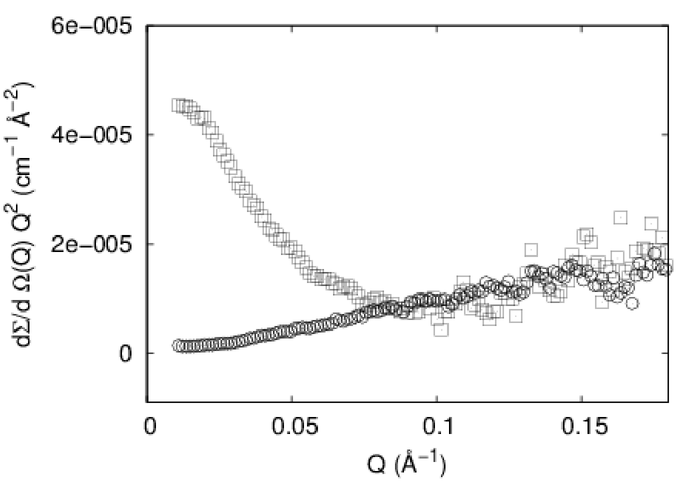

FIGURE S3: SAXS experimental points corresponding to the final stage for A$\beta_{1\text{-}40}$ without oxadiazole **3** and the theoretical Guinier fitting line (obtained considering Guinier approximation for elongated objects, *i. e.* equation $ln\left({d\Sigma}/{d\Omega}(Q)\cdot Q\right) = -R_c^2Q^2/3$ with cross section radius R_c equal to (36±3)Å [see: L.A. Feigin, D.I. Svergun, Structure analysis by Small-Angle X-ray, Neutron Scattering, Plenum Press, New York, 1987]).