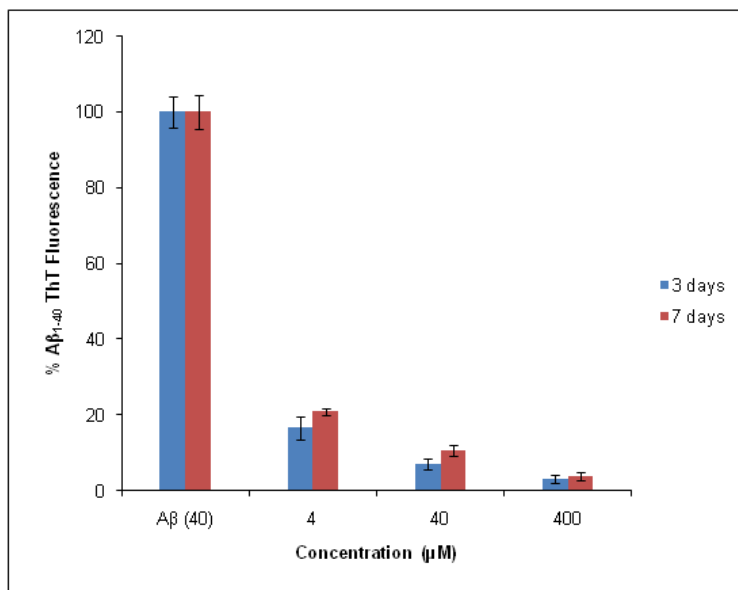
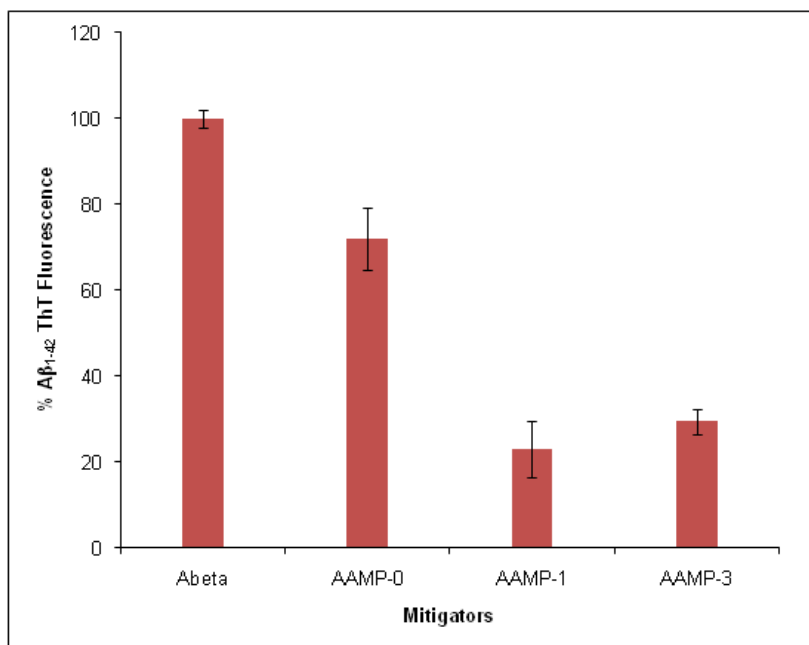


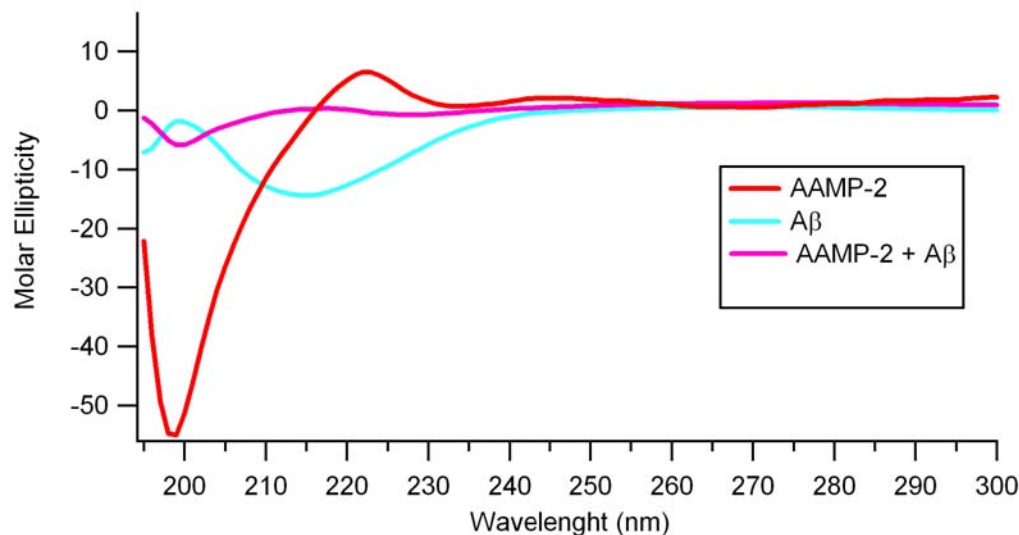
## Supporting information



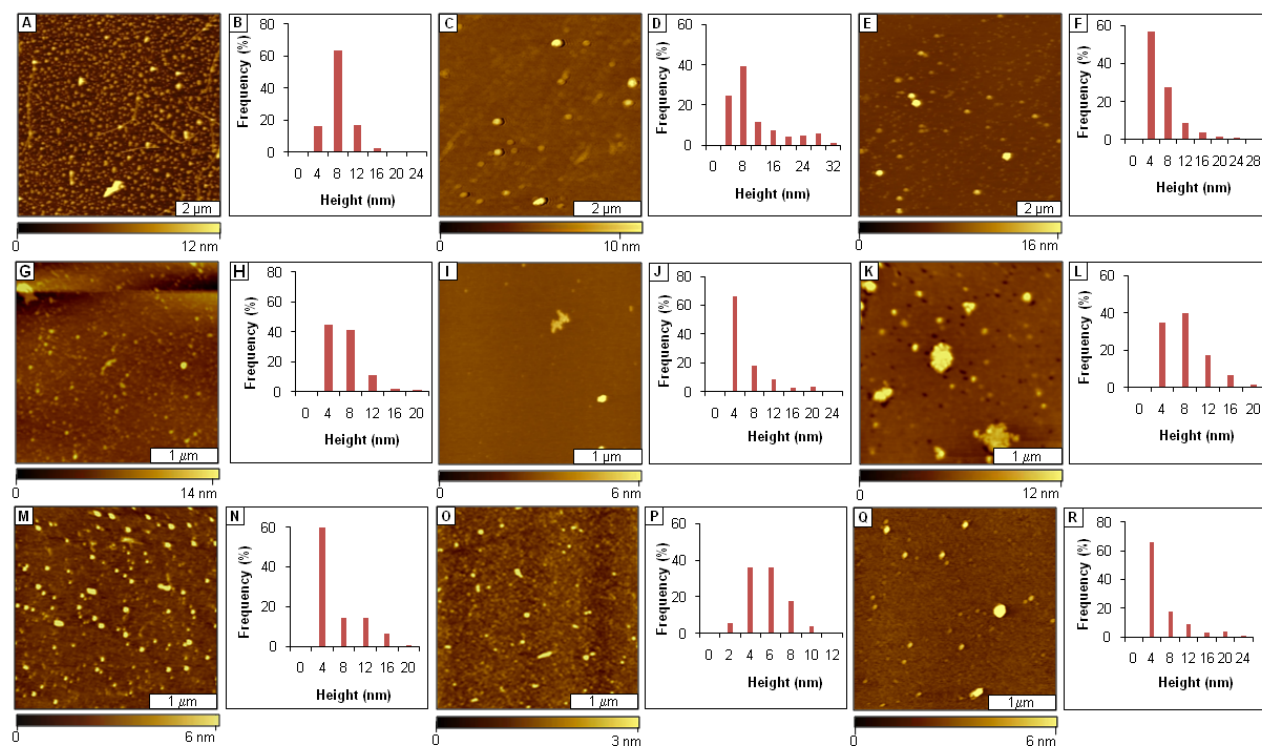
**Figure S1.** Concentration dependent study of the assembly of A $\beta_{1-40}$  in the presence of AAMP-3. Fluorescence (ThT) was set arbitrarily to 100 percent relative to A $\beta_{1-40}$ .



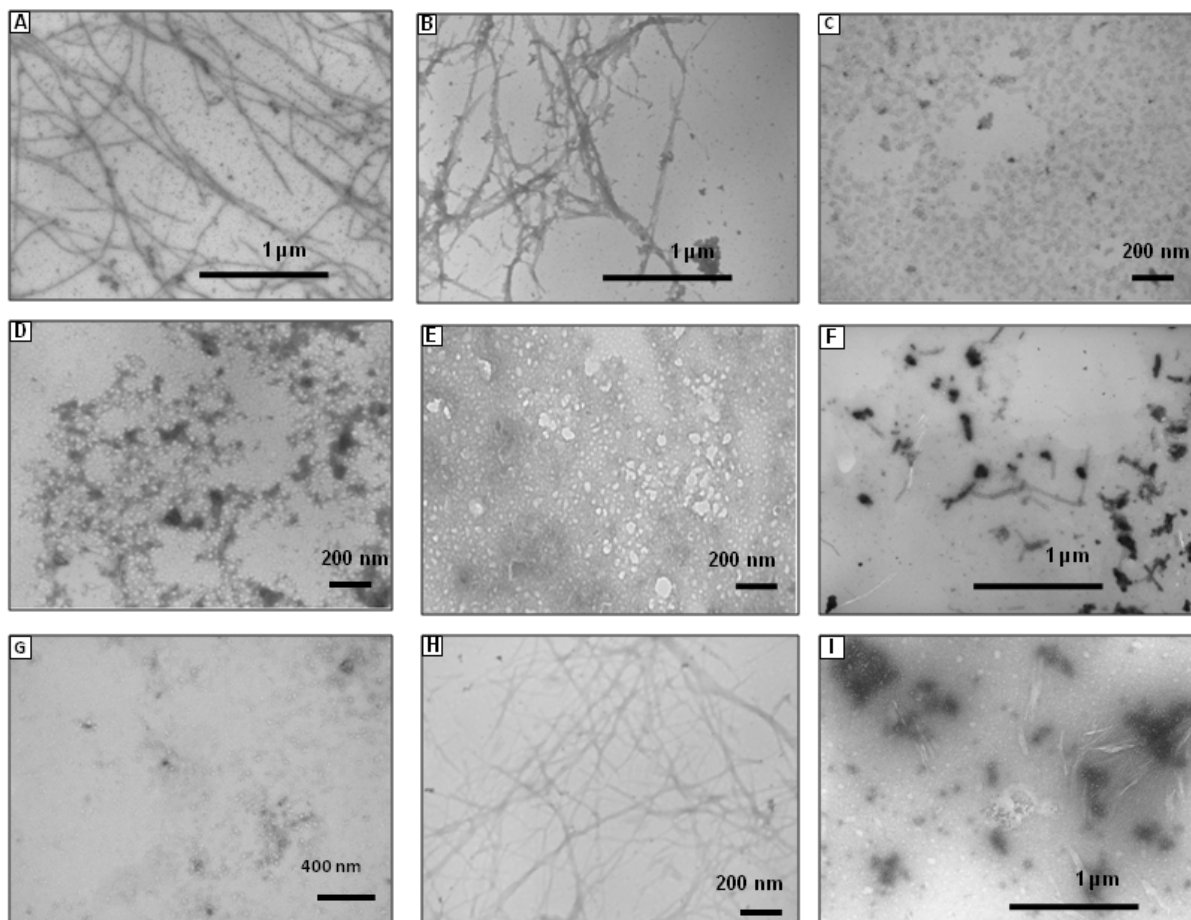
**Figure S2.** Assembly of A $\beta_{1-42}$  in the presence of  $\alpha\alpha$ AA-AAMPs after one week of aging. Time-dependent ThT fluorescence monitoring of A $\beta_{1-42}$  assembly in the presence or absence of the various AAMPs. Fluorescence (ThT) was set arbitrarily to 100 percent relative to A $\beta_{1-42}$ .



**Figure S3.** Example circular dichroism signature obtained for A $\beta$ <sub>1-40</sub> alone, AAMP alone, and a mixture of A $\beta$ <sub>1-40</sub>/AAMP after aging for 1 week.



**Figure S4.** Spherical aggregates observed after 1 week of aging various AAMPs alone. Topographic AFM views of spherical structures formed by: [A] AAMP-0 [B] Corresponding height analysis for A; [C] AAMP-1 [D] Height analysis for C; [E] AAMP-2; [F] Height analysis for E; [G] AAMP-3; [H] Height distribution for G; [I] AAMP-4; [J] Height analysis for I; [K] AAMP-5; [L] Height histogram for K; [M] AAMP-6; [N] Height analysis for M; [O] AAMP-7; [P] Height distribution for O; [Q] AAMP-8; [R] Height distribution for Q.



**Figure S5.** Morphologies of various particles observed after 1-week of aging  $A\beta_{1-40}$  in the presence of various AAMPs. [A] Fibrils formed by  $A\beta_{1-40}$  alone; [B] Fibrils formed from  $A\beta_{1-40}$  mitigation by AAMP-0; [C] Spherical particles formed from aging  $A\beta_{1-40}$  in the presence of AAMP-1; [D] Spherical particles were observed from aging a mixture of  $A\beta_{1-40}$ /AAMP-2; [E] Spherical particles formed from AAMP-3 mitigation of  $A\beta_{1-40}$  aggregation; [F] Mixture of spherical aggregates and short fibrils were observed from incubating  $A\beta_{1-40}$  in presence of AAMP-4; [G] Spherical particles formed from mitigation of  $A\beta_{1-40}$  aggregation by AAMP-5; [H] Fibrils observed from mitigation of  $A\beta_{1-40}$  aggregation by AAMP-6 [I] Mixture of spherical and short fibrils formed from  $A\beta_{1-40}$  mitigation by AAMP-7.