

## Additional file 1: Figure S1

Formation of the Cu(II)-A $\beta$  complex. (A) Peptide concentration in the supernatant of

reaction mixtures containing  $A\beta_{1-40}$  (50 µM) with or without Cu(II) (50 µM). (B) Effect of Cu(II) on the formation of A $\beta$  fibrils. The amyloid fibril formation of  $A\beta_{1-40}$ in the presence of Cu(II) (50 µM) was determined using the thioflavin T (ThT) fluorescence assay. Fibrillar  $A\beta_{1-40}$  ( $A\beta f$ , 50 µM) was used as a positive conference. Data are expressed as the means  $\pm$  SEM of three independent experiments. Significance was tested by Student's *t* test. \*\**P* < 0.01 vs  $A\beta$  (A) or  $A\beta f$  (B); <sup>#</sup>*P* < 0.05 vs  $A\beta$  (B). (C) Dot blot analysis of  $A\beta_{1-40}$  and Cu(II)- $A\beta_{1-40}$  (with 1:1 or 1:2 of  $A\beta$ : Cu(II) molar ratios) at a peptide concentration of 10 µM.  $A\beta_{1-40}$  was incubated in 20 mM Hepes buffer (containing 153 mM NaCl; pH 6.6) in the presence or absence of Cu(II) for 24 h at 37 °C. Oligomeric  $A\beta_{1-40}$  ( $A\beta$ o) was used as a positive control.