

*Supporting materials for*

**Influence of gold-bipyridyl derivants on aggregation and  
disaggregation of the prion neuropeptide PrP106–126**

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**Figure S1.**  $^1\text{H}$  NMR spectra of gold complexes in 9:1  $\text{H}_2\text{O}/\text{d}_6\text{-DMSO}$  solvent at pH 5.8, 298 K.  $[\text{Au}(\text{Me}_2\text{bpy})\text{Cl}_2]\text{Cl}$  (A);  $[\text{Au}(\text{t-Bu}_2\text{bpy})\text{Cl}_2]\text{Cl}$  (B);  $[\text{Au}(\text{Ph}_2\text{bpy})\text{Cl}_2]\text{Cl}$  (C).

**Figure S2.** ESI-MS spectra of 50  $\mu\text{M}$  PrP106–126 in the presence of equivalent amounts of  $[\text{Au}(\text{Ph}_2\text{bpy})\text{Cl}_2]\text{Cl}$  with pH value at 5.8 (A) and 7.0 (B).

**Figure S3** The portion of downfield NMR spectra of  $[\text{Au}(\text{Me}_2\text{bpy})\text{Cl}_2]\text{Cl}$  in the absence (A) and presence of PrP106-126 (B).

**Figure S4** The portion of downfield NMR spectra of  $[\text{Au}(\text{t-Bu}_2\text{bpy})\text{Cl}_2]\text{Cl}$  in the absence (A) and presence of PrP106-126 (B). The peak at 8.04 ppm is added in (B) due to its overlap with the peaks from peptide.

**Figure S5** The portion of downfield NMR spectra of  $[\text{Au}(\text{Ph}_2\text{bpy})\text{Cl}_2]\text{Cl}$  in the absence (A) and presence of PrP106-126 (B).

**Figure S6.** The abilities of metal complexes  $[\text{Au}(\text{bpy})\text{Cl}_2]\text{PF}_6$  (blue),  $[\text{Au}(\text{Me}_2\text{bpy})\text{Cl}_2]\text{Cl}$  (black),  $[\text{Au}(\text{t-Bu}_2\text{bpy})\text{Cl}_2]\text{Cl}$  (red) and  $[\text{Au}(\text{Ph}_2\text{bpy})\text{Cl}_2]\text{Cl}$  (green) to inhibit the aggregation of PrP106–126 measured by ThT assay. The concentration of the peptide was  $100\mu\text{M}$ .

**Figure S7.** The neurotoxicity of gold complex determined by MTT assay. The data represented the average of four experiments.