Supporting information for

## Inhibitory effects of NAMI-A-like ruthenium complexes on prion neuropeptide fibril formation

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**Figure S1**. The<sup>1</sup>H-NMR spectra of the complexes KP418 (A), NAMI-A (B), KP1019 (C), and KP1019-2(D).



Figure S2. The UV-vis spectra of NAMI-A-like complexes carried out in aqueous solution. A. KP418, B. NAMI-A, C. KP1019, D. KP1019-2.



**Figure S3**. Evaluation of the ability of KP418, NAMI-A, KP1019, and KP1019-2 to inhibit the aggregation of PrP106–126.



**Figure S4**. The ThT spectra carried out in the presence and absence of ruthenium complexes. Compared with fluorescence intensity of PrP106-126, the FL intensity of metal complex is small enough to be ignored.



**Figure S5**. The ability of ruthenium complexes to inhibit the aggregation of PrP106–126, KP418 (A), NAMI-A (B), KP1019 (C), and KP1019-2 (D) measured by ThT fluorescence assay. The concentration of the peptide was 100  $\mu$ M and the IC<sup>50</sup> values were summarized in Table 2.



**Figure S6**. Effects of ruthenium complex on the viability of human SH-SY5Y cells determined with a MTT assay. It means that ruthenium complex have a relative low cytotoxicity. \*P < 0.01 versus control group.