Electronic Supplementary Information (ESI)

Hierarchical self-assembly of a β-amyloid peptide derivative

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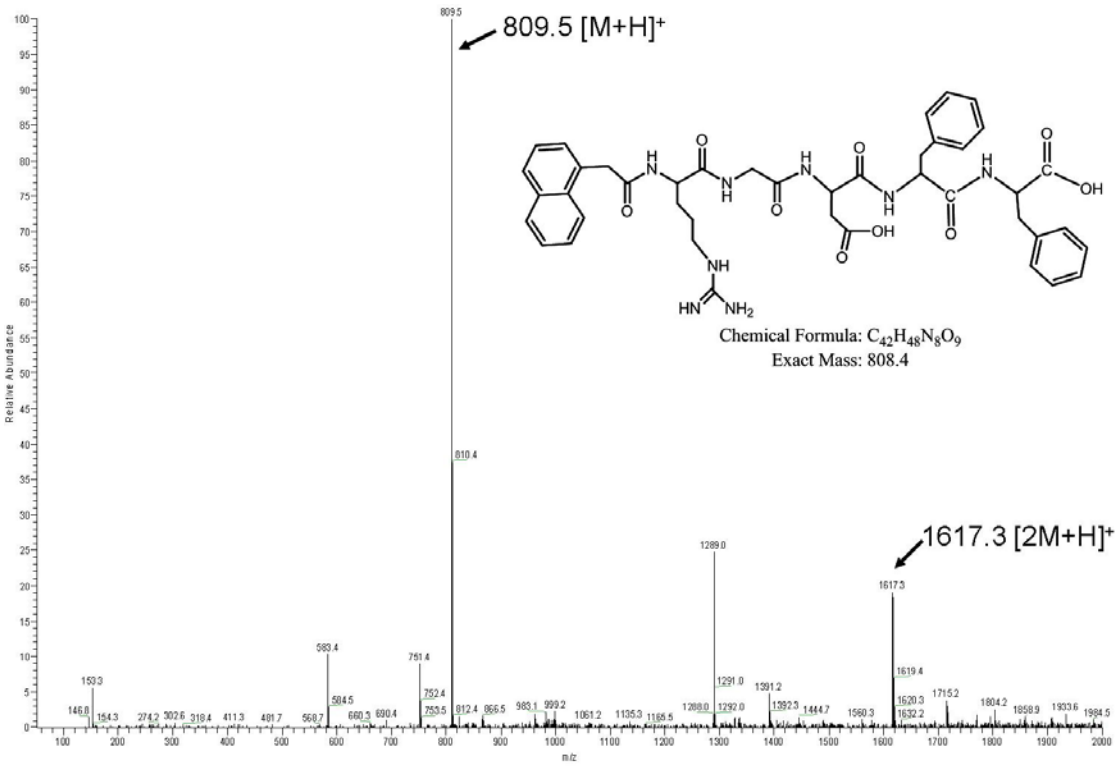

Fig. S1 ESI-MS of Ne-RGDFF-OH. $[M+H]^+$ at m/z 809.5 and $[2M+H]^+$ at m/z 1617.3 were observed.

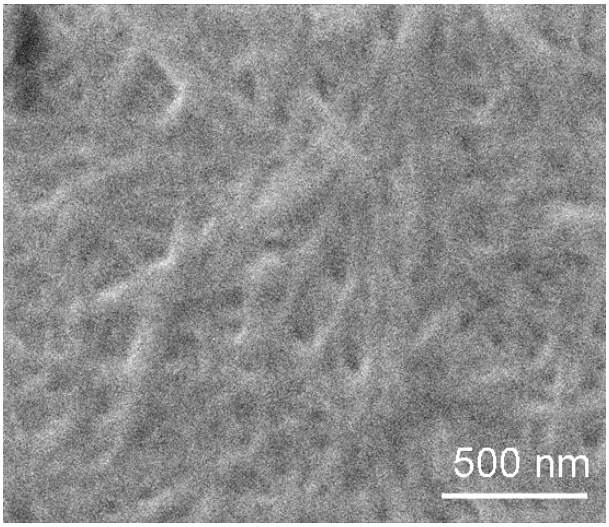

Fig. S2 SEM image of the self-assembled nanofibers obtained by freeze-drying peptide solution (1 mg/mL) under vacuum.

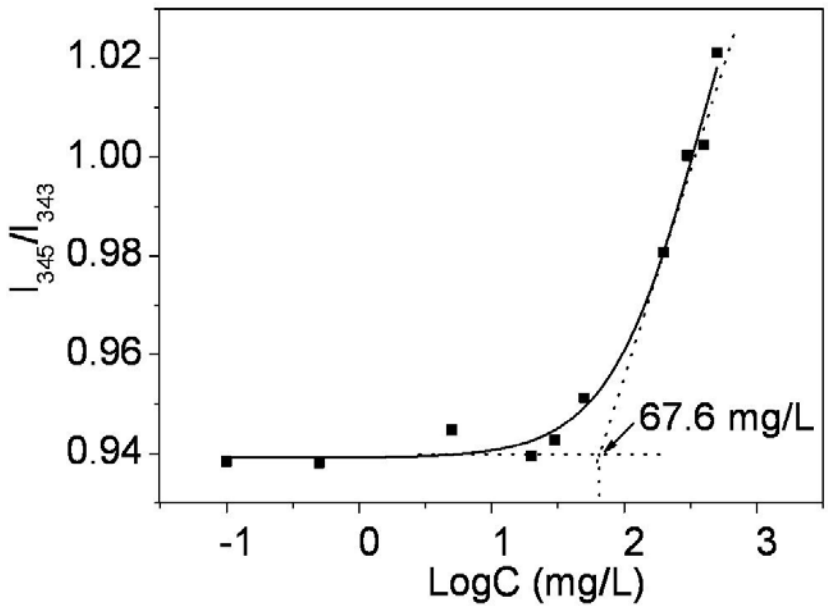

Fig. S3 Plot of the intensity ratio I_{345}/I_{343} *vs* log C. The CMC value was 67.6 mg/L.

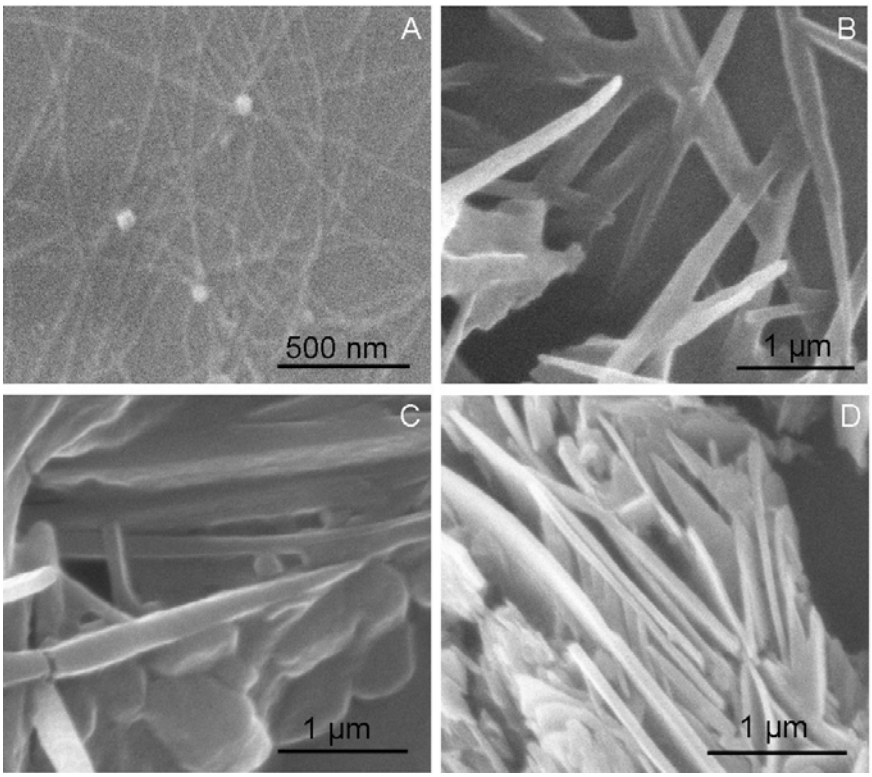

Fig. S4 SEM images of the self-assemblies obtained at different peptide concentrations. (A): The self-assembled nanofibers formed from 1 mg/mL peptide solution; (B): The self-assembled nanobelts formed from 2 mg/mL peptide solution; (C): The mixed nanobelts and sheets formed from 4 mg/mL peptide solution; and (D): The obtained sheets formed from 15 mg/mL peptide solution; All the aggregates were formed on glass substrates.

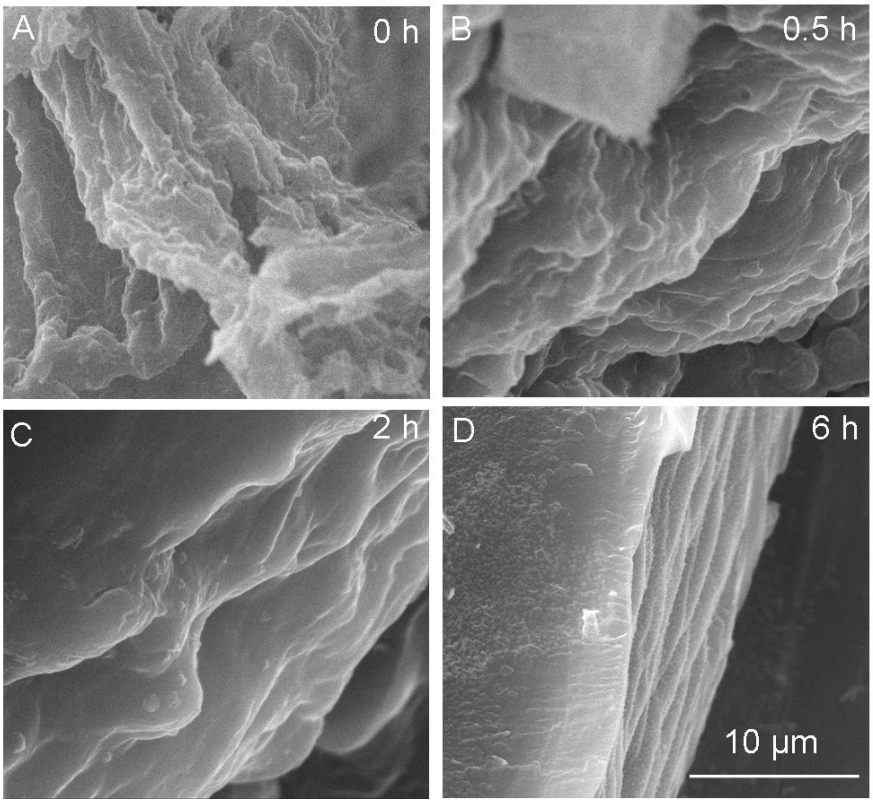

Fig. S5 SEM images of the superstructures of the self-assemblies after vacuum-drying treatment for different time intervals. (A): SEM image of the hydrogel without vacuum treatment; (B-D): SEM images of the superstructures of the self-assembles after vacuum-drying under the pressure of $5*10^4$ Pa for the time internals of 0.5 h (B), 2 h (C) and 6 h (D), respectively.

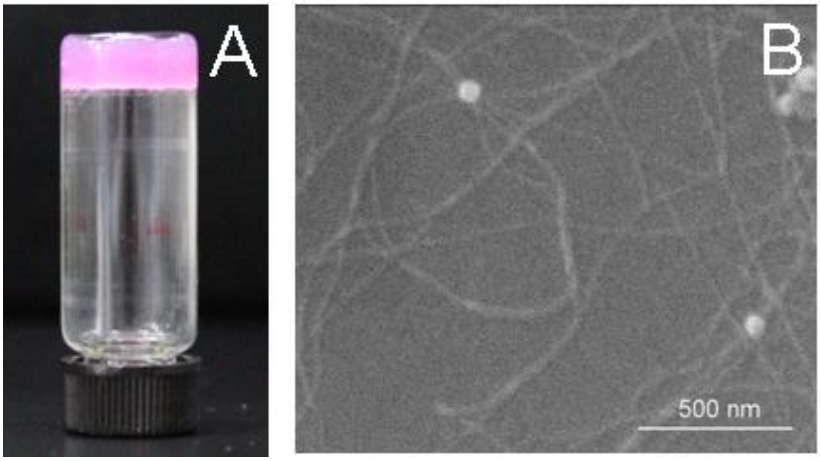

Fig. S6 The photo of the peptide hydrogel formation in serum (A) and the SEM image of the self-assembled nanofibers in serum (B).