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Supporting information:

Self-assembly and potassium ion triggered disruption of peptide-based soft structures

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General. Dichloromethane, *N*, *N*-dimethylformamide, methanol, triethylamine and 1, 2-dimethoxy ethane were distilled following standard procedures prior to use. *N*, *N'*-dicyclohexylcarbodiimide, *N*-hydroxybenzotriazole, *t*-butyloxycarbonyl carbonate, L-amino acids were purchased from Spectrochem, Mumbai, India, and used without further purification. ^{1}H and ^{13}C NMR spectra were recorded on JEOL-JNM LAMBDA 400 model operating at 400 and 100 MHz, respectively. Mass spectra were recorded at RSIC, Lucknow, India, on JEOL SX 102/DA-6000 mass spectrometer data system using Argon/Xenon (6kV, 10mA) as the FAB gas. Elemental analyses (C, H, N) were performed on Perkin-Elmer 240-C automatic elemental analyzer.

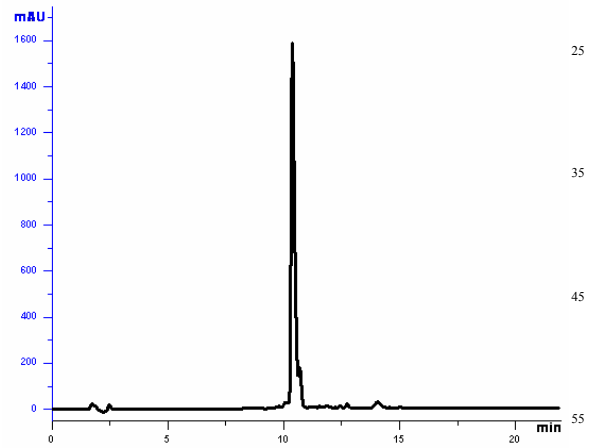

Figure S1. HPLC chromatogram of **SV1**. (Akta Basic, Amersham Pharmacia) using a µRPC C2/C18 ST 4.6/100 column (Pharmacia Biotech) with an applied gradient of 0.1% trifluoroacetic acid in water (Eluent A) to 0.1% trifluoroacetic acid in acetonitrile (Eluent B) (20-100% B in 25 min). Concentration of **SV1** for an analytical run was 1 mg/ml.

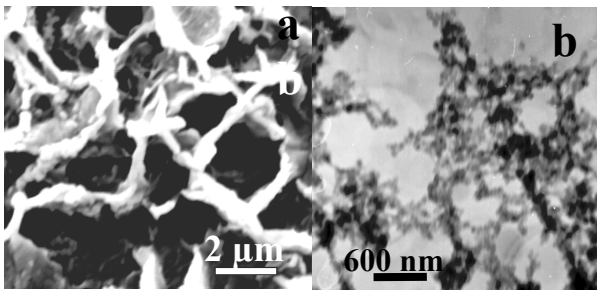

Figure S2. (a) SEM; (b) TEM image after addition of the KNO_3 (0.25 mM) to the 2 days aged solution of the preformed **SV1** vesicles followed by 24 hours incubation.

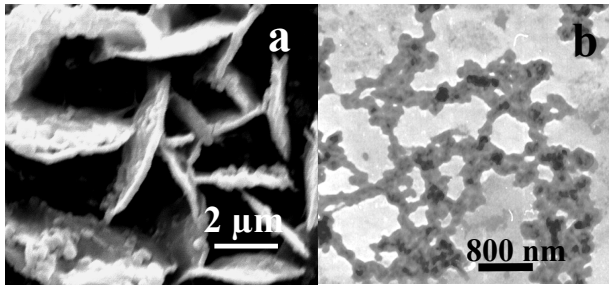

Figure S3. (a) SEM; (b) TEM image after addition of the NaCl (0.25 mM) to the 2 days aged solution of the preformed **SV1** vesicles followed by 24 hours incubation.

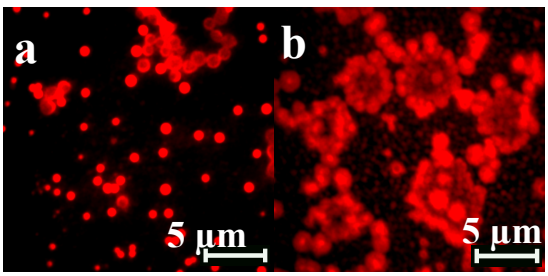

Figure S4. (a) After sonication of the 5 days aged rhodamine entrapped SV1 vesicles, (b) after 20 days aged solution of the rhodamine entrapped SV1 vesicles.

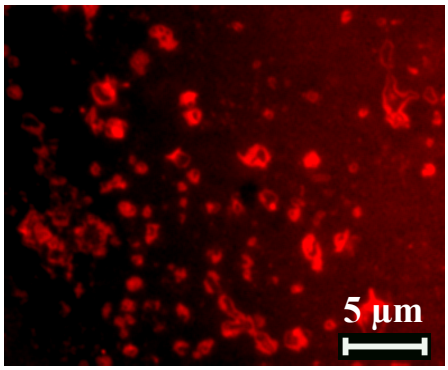

Figure S5. Low Fluorescence micrograph after KNO_3 (0.25 mM) was added into the rhodamine B trapped **SV1**vesicle and followed by 24 hours incubation.

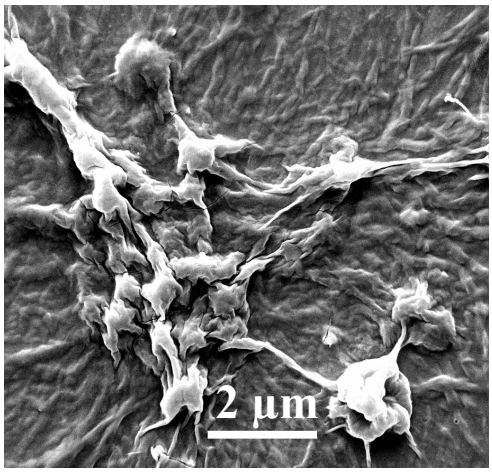

Figure S6. SEM image of the 0.25 mM Trp-Trp dipeptide after 2 days incubation in 60% methanol water.

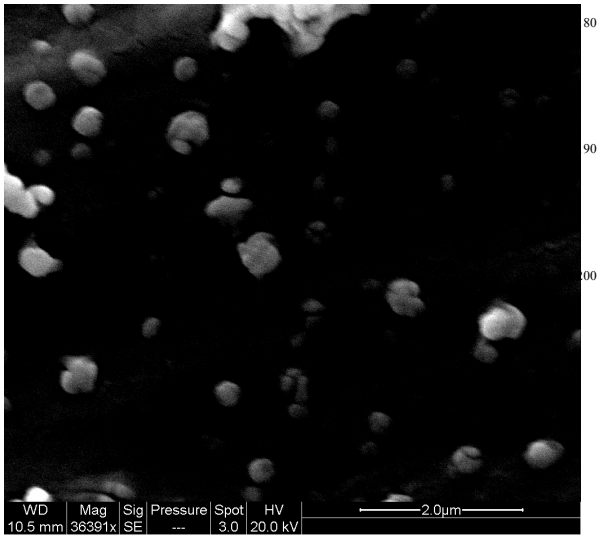

Figure S7. SEM image of the fresh solution of PWW in 60% methanol water.

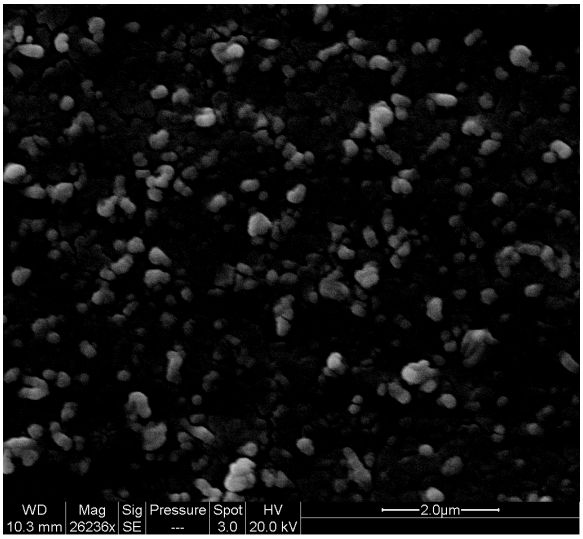

Figure S8. SEM image of the fresh solution of WWP in 60% methanol water.

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