Method

Freshly cleaved mica was incubated for 5 min with 0,1 mg/ml poly-ornithine (30-70 kDa, Sigma, St Louis, USA) and subsequently washed with water for 6 times. Peptide was applied on the coated mica and incubated for 5 minutes. Peptide solution was removed and buffer was applied to perform AFM in aqueous environment. AFM was performed in contact mode with a PicoScan Atomic Force Microscope (Molecular Imaging, Tempe, USA) using Si_3N_4 cantilevers (Digital Instruments Inc., Buffalo, USA).

Figure S1

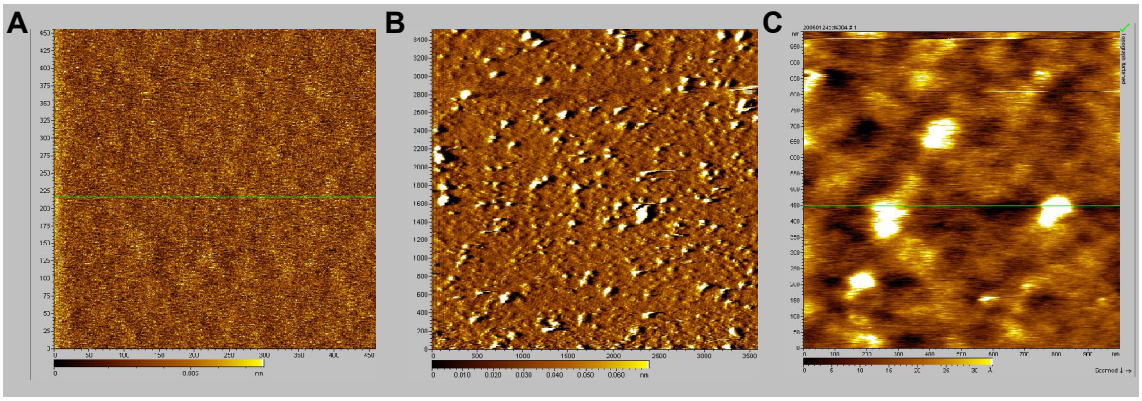

Figure S1. Atomic force microscopy (AFM) investigation of the structure of SA peptide assemblies. To approach the original structure of assemblies, AFM was performed while maintaining sample and cantilever in aqueous solution. The planar mica surface was not affected by poly-ornithine coating (A: poly-ornithine coated mica only; 5000 x 5000 nm). Peptide assemblies adhered on the surface and appeared abundantly present (B: 5000 x 5000 nm, force corrected; C: 1000 x 1000nm). The spherical assemblies are of 100-50 nm in radius. The observed structures displayed a relatively soft nature, since minor forces were needed to destroy the peptide assemblies.

Figure S2

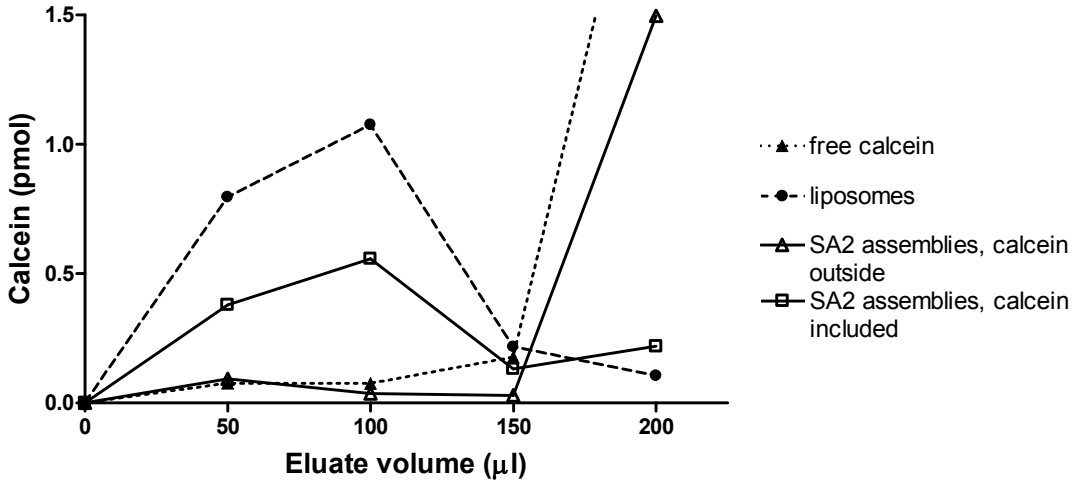

Figure S2. Calcein incorporation in SA2 peptide assemblies. Free calcein elutes at 200 µl and onwards, whereas liposomes come off the column in the first 100 µl (void volume). SA2 peptide was dispersed in presence of calcein, prior to spin column separation (10 nmol SA2 peptide, 4 mM calcein), which resulted in co-elution of calcein with the vesicle fraction. Calcein fluorescence decreased in the third fraction and increased again in next fractions, a trend that confirms the presence of two different calcein populations. As a negative control calcein was added to SA2 assemblies after preparation, which resulted in an elution profile similar to free calcein.