## **Supporting Information**

Specific interaction between DSPHTELP peptide and various functional groups

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**Fig. S1.** HPLC chromatogram of synthesized and purified 8-mer peptide. The x-axis is time (min), and the y-axis is the absorbance at 260nm (mAU).



**Fig. S2.** Matrix-Assisted Laser Desorption/Ionization time-of-flight (MALDI-TOF/TOF) mass spectra of synthesized 8-mer peptide. The x-axis is the m/z(mass-to-charge) ratio, and y-axis is the intensities of the detected compounds.



Fig. S3. AFM image of the DSPHTELP-peptide (scale bar = 1  $\mu$ m).



Fig. S4. AFM image of the M13 bacteriophages with DSPHTELP sequences (scale bar = 1  $\mu$ m).<sup>1</sup>

## **Supplementary References**

 C. Lim, J. Ko, D. Jeon, Y. Song, J. Park, J. Ryu and D. W. Lee, *Communications Chemistry*, 2019, 2, 96.