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Supporting information for

Short Elastin-like Peptide-functionalized Gold Nanoparticles that are

Temperature Responsive under Near-Physiological Conditions

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Figure S1: Solid peptide synthesis of Peptide 1.



Figure S2: Analytical HPLC of **Peptide 1**. This pentapeptide was synthesized on a solid resin. HPLC was carried out on a preparative column (C18, 100 x 19 mm, 5 μ m particle size). Peptides were eluted in H₂O / MeCN + 0.1 % trifluoroacetic acid.



Figure S3: Analytical HPLC of Peptide 2. Same HPLC condition was carried as Peptide 1.



Figure S4: Analytical HPLC of Peptide 3. Same HPLC condition was carried as Peptide 1.



Figure S5: Structure of ELP-GNP.



Figure S6. a) Temperature dependence of the circular dichroism (CD) spectra of peptide **2** (200 μ M) in PBS buffer at pH 7.4 from 10 °C to 60 °C; b) Temperature profile of [θ]₁₉₈ values for **Peptide 2** (200 μ M) in PBS buffer at pH 7.4 from 10 °C to 70 °C.



Figure S7. a) Temperature dependence of the circular dichroism (CD) spectra of peptide **3** (200 μ M) in PBS buffer at pH 7.4 from 10 °C to 70 °C. b) Temperature profile of [θ]₁₉₈ values for **Peptide 3** (200 μ M) in PBS buffer at pH 7.4 from 10 °C to 70 °C.