

Electronic Supplementary Information (ESI)

Large Payloads of Gold Nanoparticles into the Polyamine Network Core of Stimuli-Responsive PEGylated Nanogels for Selective and Noninvasive Cancer Photothermal Therapy

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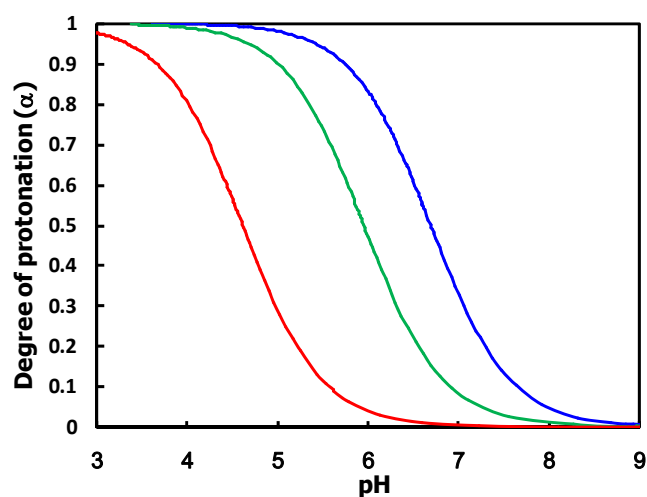


Figure S1. Degree of protonation (α) as a function of pH (α /pH curve) for PEGylated nanogel at 5 (blue), 25 (green) and 60 °C (red).

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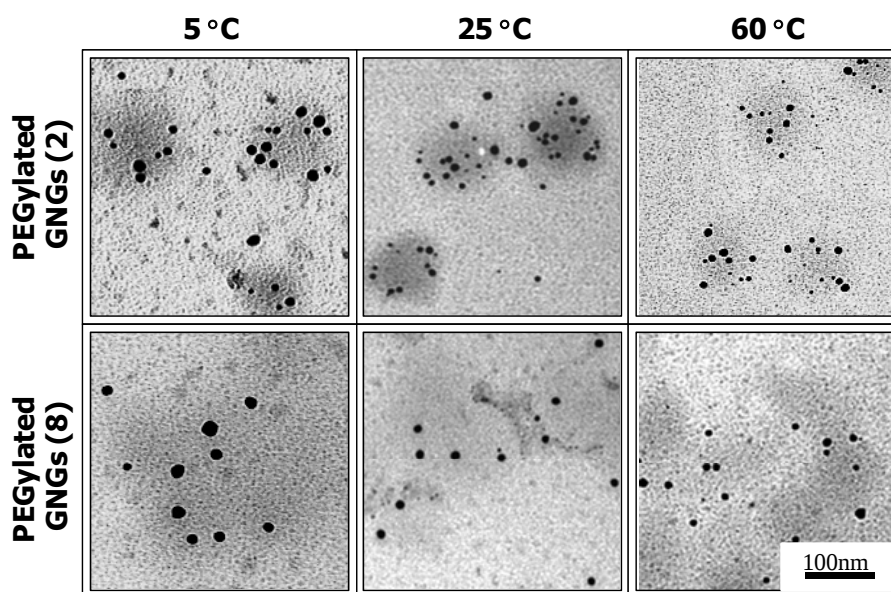


Figure S2. TEM images of PEGylated GNG (2) and PEGylated GNG (8) prepared at 5°C, 25°C and 60°C.

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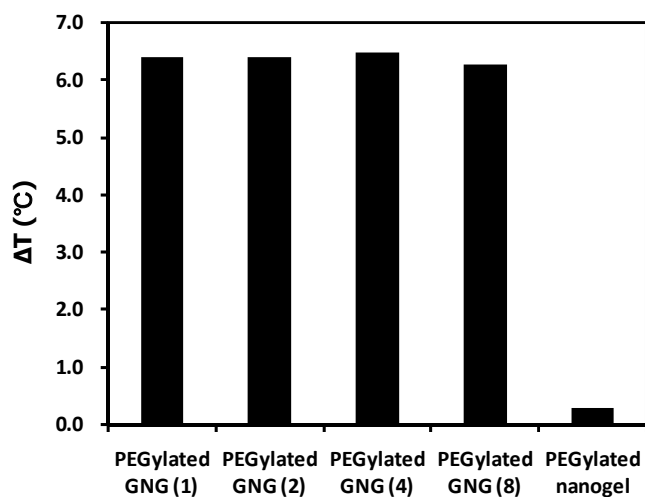


Figure S3. Increments of the temperature (ΔT) of the PEGylated GNGs (1, 2, 4 and 8) solutions and the PEGylated nanogel solution after irradiation with a 600 mW Ar^+ laser (514.5 nm) at a fluence of 39 W/cm^2 for 4 min ($9.4 \text{ kJ}/\text{cm}^2$) ($[\text{Au}] = 48 \text{ } \mu\text{g}/\text{mL}$).

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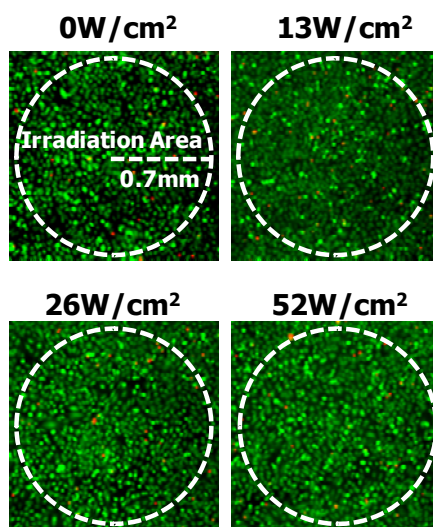


Figure S4. Fluorescence microscope images of HeLa cells after irradiation with the Ar^+ laser (514.5 nm) for 5 min at a fluence of 13, 26, and 52 W/cm^2 for 5 min (3.9, 7.8 and 15.6 kJ/cm^2 , respectively).

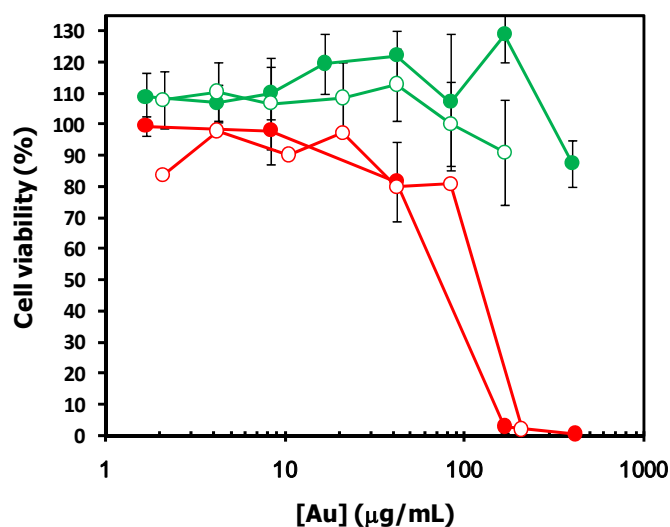


Figure S5. Viability of the HeLa cells treated with PEGylated GNG (1) (closed circle) and PEGylated GNG (2) (open circle) at various Au concentrations with (red) or without (green) irradiation using Ar^+ laser (514.5 nm) at a fluence of 26 W/cm^2 for 5 min (7.8 kJ/cm^2).

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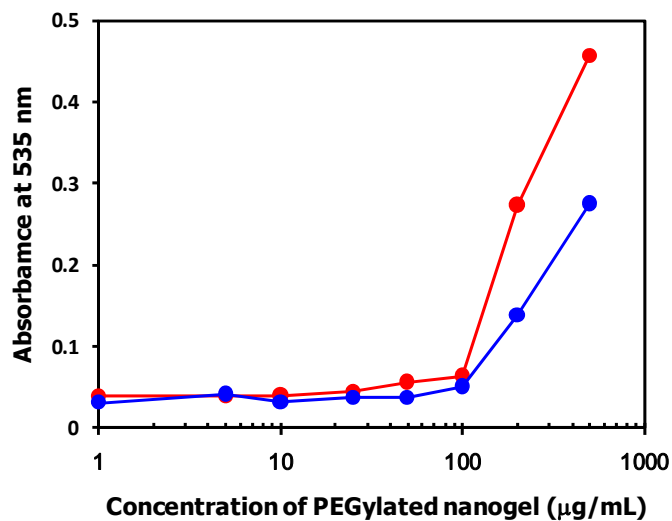


Figure S6. Absorbance at the SPB (535 nm) of PEGylated GNG (1) (red) and PEGylated GNG (2) (blue) in the HeLa cells as a function of the PEGylated nanogel concentration.

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