Electronic Supplementary Material (ESI) for Nanoscale.

Responsive polymer-fluorescent carbon nanoparticle hybrid nanogels for optical temperature sensing, near-infrared light-responsive drug release, and tumor cell imaging

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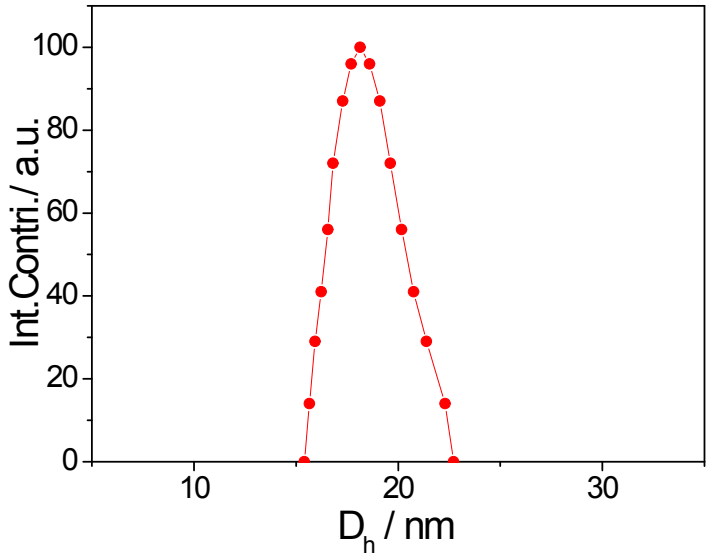

Figure S1. Hydrodynamic diameter distribution of FCNPs at a scattering angle θ=60°

measure at 22 °C.

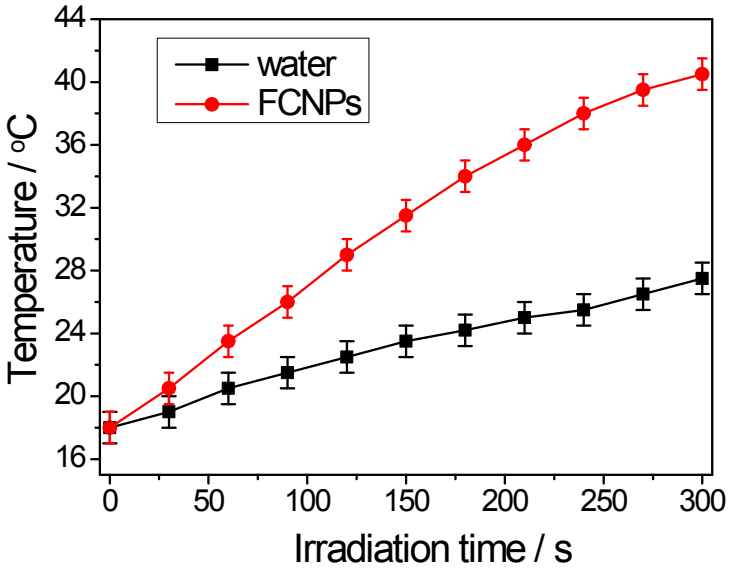

Figure S2. The heating curves of water and the FCNPs (100 mg/L) under NIR irradiation 1.5 W/cm^2.

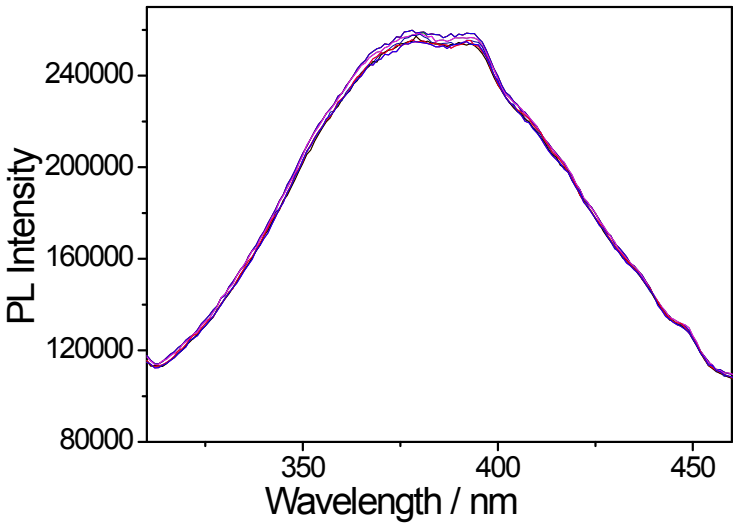

Figure S3. Fluorescence spectra (λ_{em}=380 nm) of the hybrid nanogels under different excitation times from 0 min to 120 mins, excitation wavelength = 280 nm.

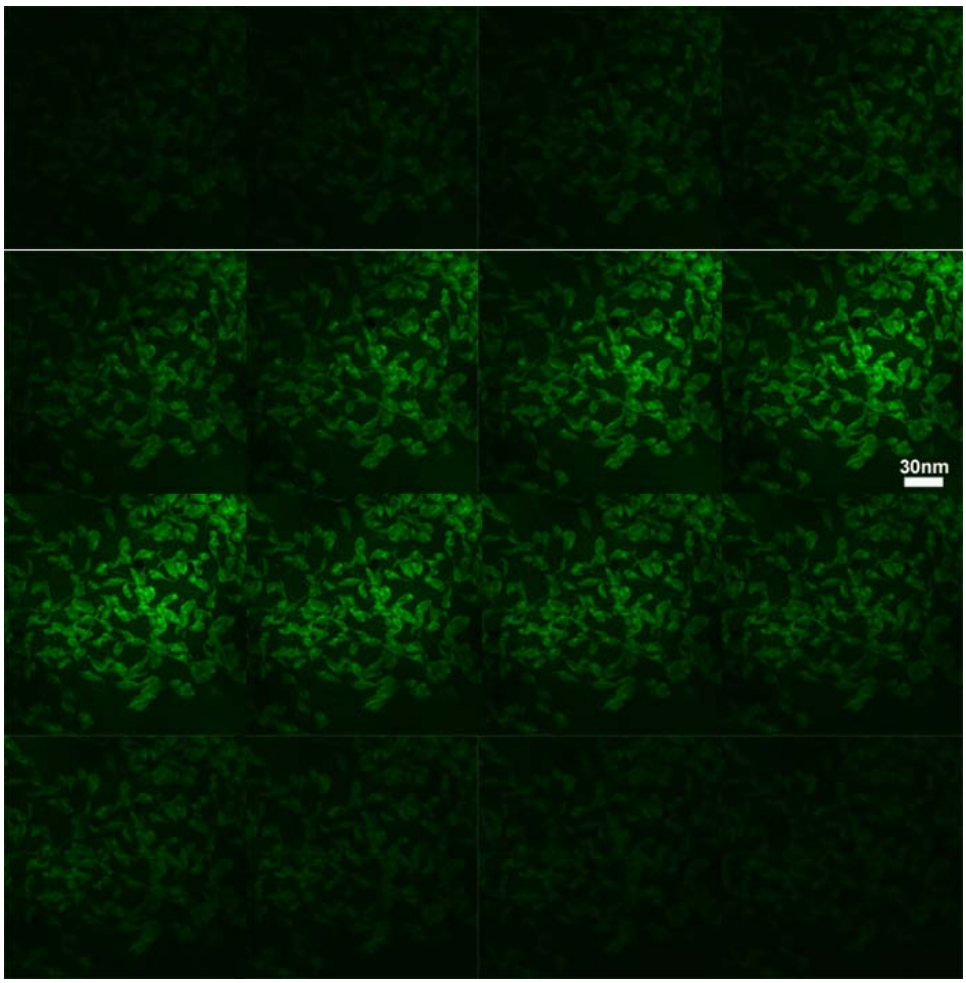

Figure S4. Z-Scanning confocal fluorescence images of the B16F10 cells incubated with the hybrid nanogels. Excitation wavelength = 405 nm.

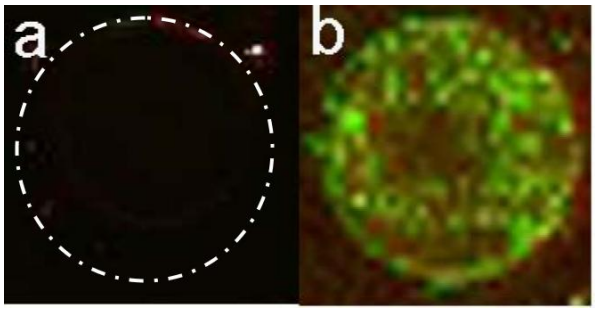

Figure S5. NIR scanner images of the round glass cover slips that are attached with B16F10 cells: (a) cells have no lebels; and (b) cells incubated with the poly(NIPAM-AAm)-FCNP hybrid nanogels for 2h. The Odyssey CLx infrared imaging system with two diode lasers (wavelength

= 700 nm and 800 nm, respectively) as excitation light sources was used for the imaging.