Supplementary data

Fabrication of PEGylated graphitic carbon nitride quantum dots as traceable, pH-sensitive drug delivery systems

Jian Dong,‡ Yali Zhao,‡ Hongyu Chen, Li Liu, Wenxian Zhang, Baoliang Sun, Mingfeng Yang, Yi Wang, and Lifeng Dong*

‡These two authors contributed equally.

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Fig. S1 The stability of (a) g-CNQDs in water, PBS, and cell medium after 48 h; and the stability of (b) g-CNQDs-PEG in water, PBS, and cell medium after 30 days.

Fig. S2 The XRD spectra of g-CNQDs, g-CNQDs-PEG, and PEG.
Fig. S3 TGA (in N₂) of g-CNQDs and g-CNQDs-PEG with a heating rate of 5 °C min⁻¹.

Fig. S4 Survey XPS spectra of g-CNQDs and g-CNQDs-PEG.
Fig. S5 Illustration of the synthesis of g-CNQDs and g-CNQDs-PEG.

Fig. S6 UV-Vis absorbance standard curve of DOX at 480 nm.
Fig. S7 CLSM images of U251 cells treated with g-CNQDs-PEG at a concentration of 5 µg mL\(^{-1}\) after incubation for 2, 8, and 16 h: (a) DOX excited by a 405 nm laser and signals collected in the range of 595±50 nm; (b) cell nuclei stained with DAPI excited by a 405 nm laser and signals collected from 450±50 nm; (c) merged images of DOX and DAPI.