Electronic Supplementary Material (ESI) for Nanoscale.

Functionalized Cu_3BiS_3 nanoparticles for dual-modal imaging and targeted photothermal/photodynamic therapy

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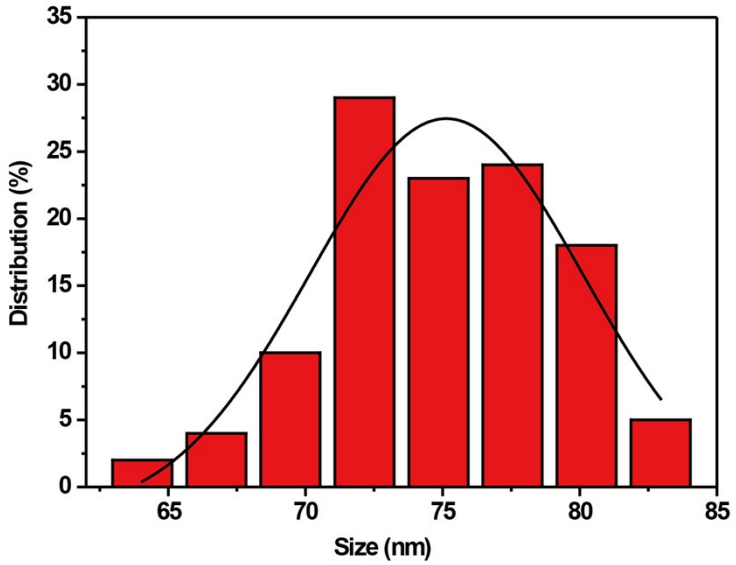

Fig. S1. Size distribution data of hydrophobic Cu_3BiS_3 NPs.

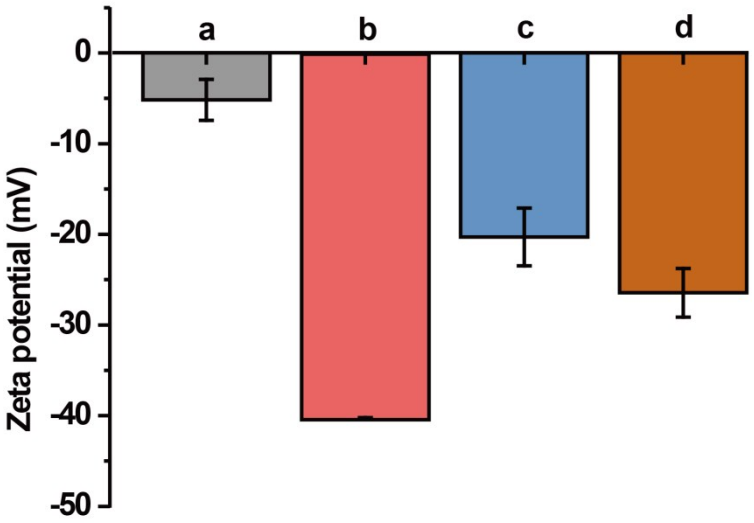

Fig. S2. Zeta potentials of Cu_3BiS_3-DSPE-PEG(-NH_2) (a), Cu_3BiS_3-PEG-(Ce6) (b), Cu_3BiS_3-PEG-(Ce6-Gd^{3+}) (c) and Cu_3BiS_3-PEG-(Ce6-Gd^{3+})-FA (d).

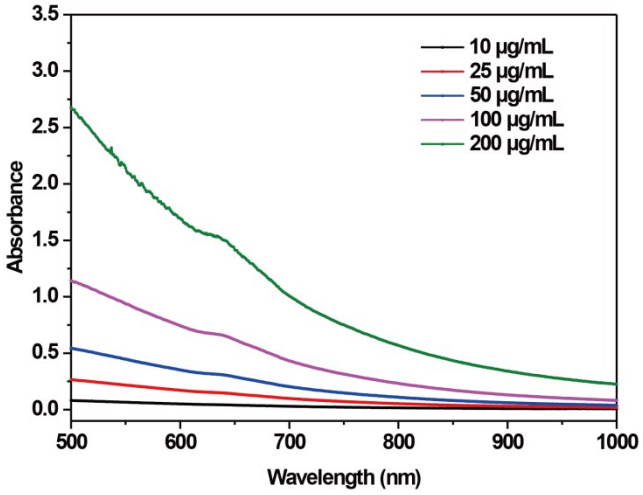

Fig. S3. Vis-NIR spectra of Cu_3BiS_3-PEG-(Ce6-Gd^{3+})-FA solutions with different concentrations.

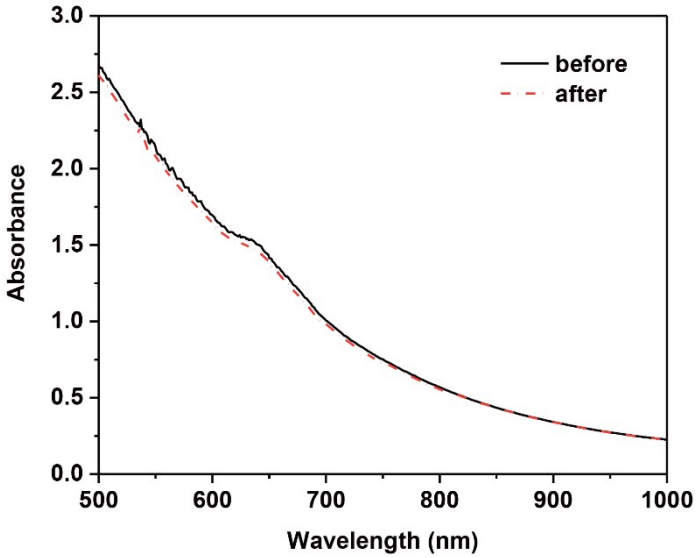

Fig. S4. Vis-NIR spectra of the Cu_3BiS_3-PEG-(Ce6-Gd^{3+})-FA solution (200 μg/mL) before laser irradiation and after 8 heating/cooling cycles.

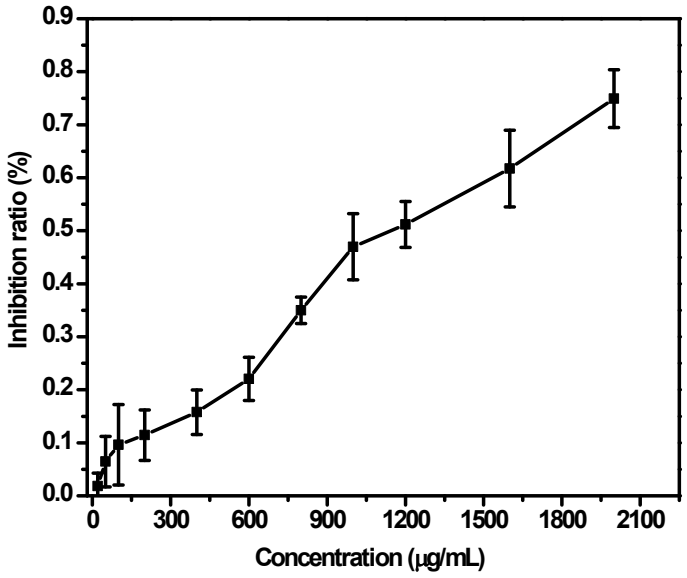

Fig. S5. The inhibition ratio (measured by MTT assay) of HeLa cells after incubation with Cu_3BiS_3-PEG-(Ce6-Gd^{3+})-FA of different concentrations for 24 h.

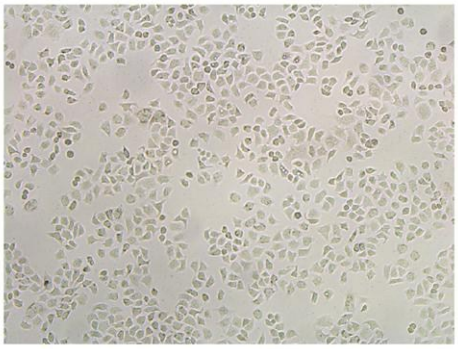

Fig. S6. Typical bright field microscopy image of trypan blue stained HeLa cells after incubation with Cu_3BiS_3-PEG-(Ce6-Gd^{3+})-FA (100 μg/mL) for 4 h.

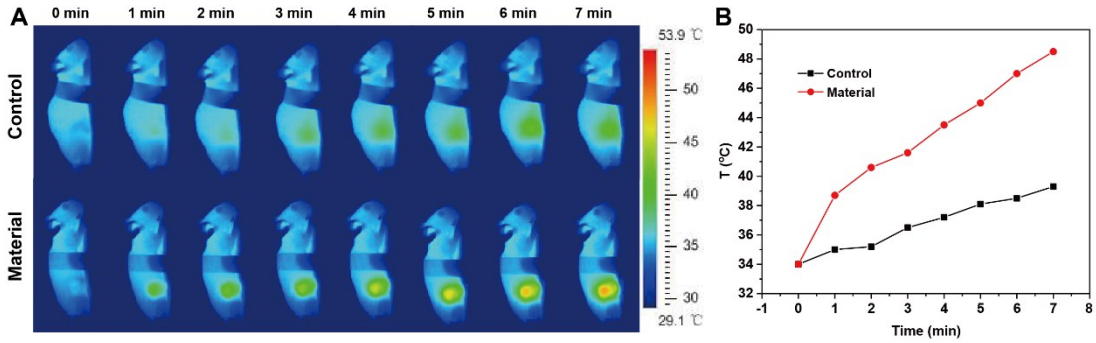

Fig. S7 (A) NIR thermal images of HeLa tumour-bearing mice intravenously injected with either PBS (Control) or Cu_3BiS_3-PEG-(Ce6-Gd^{3+})-FA (Material) and then exposed to the NIR laser irradiation (808 nm, 0.5 W/cm^2); (B) The temperature changes of the tumours based on infrared thermal imaging data in (A).

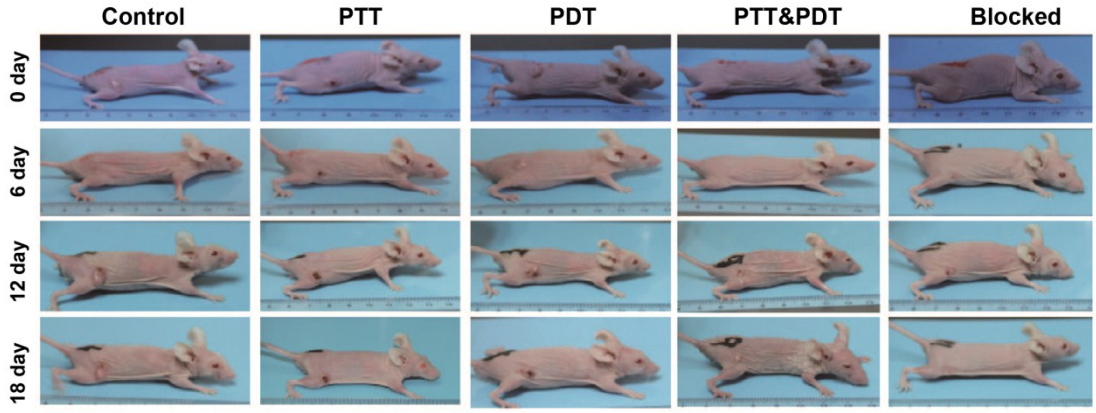

Fig. S8. Representative photographs of HeLa tumor-bearing nude mice obtained from each treated group.

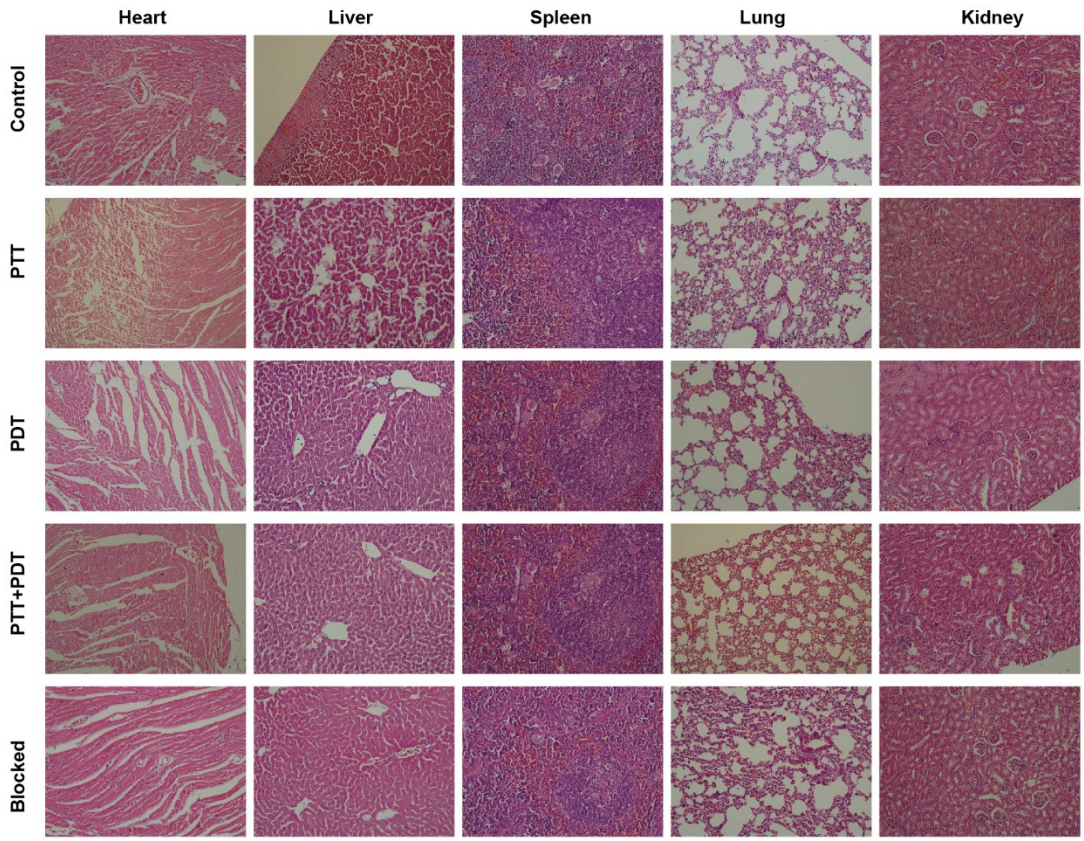

Fig. S9. Representative H&E histopathological images of major organs after various treatments.

The full name and units of the blood indexes shown in Figure 6D:

ALT: alanine aminotransferase (U/L)

AST: aspartate aminotransferase (U/L)

ALP: alkaline phosphatase (U/L)

CREA: creatinine (μM)

BUN: blood urea nitrogen (mM)

MCH: mean corpuscular hemoglobin (pg)

MCV: erythrocyte mean corpuscular volume (fl)

HGB: Hemoglobin (g/L)

WBC: white blood cell (10^9/L)

HCT: Red blood cell specific volume (%)

RBC: red blood cell (10^{12}/L)

MCHC: mean corpusular hemoglobin concerntration (g/L)