Supporting Information

Ce6-Conjugated and Polydopamine-Coated Gold Nanostars with Enhanced Photoacoustic Imaging and Photothermal/Photodynamic Therapy to Inhibit Lung Metastasis of Breast Cancer

Ziwei Li[1], Fan Yang[2], Di Wu[1*], Yanhong Liu[1], Yang Gao[1], Haichen Lian[2], Hongxin Zhang[2], Zhibin Yin[1], Aiguo Wu[3*], Leyong Zeng[1*]

[1] *Key Laboratory of Medicinal Chemistry and Molecular Diagnosis of the Ministry of Education, Chemical Biology Key Laboratory of Hebei Province, College of Chemistry & Environmental Science, Institute of Life Science and Green development, Hebei University, Baoding 071002, P.R. China.*

[2] *Medical Department & Affiliated Hospital of Hebei University, Baoding 071002, P.R. China.*

[3] *Cixi Institute of Biomedical Engineering, CAS Key Laboratory of Magnetic Materials and Devices, Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences, Ningbo, 315201, P.R. China.*

[*]Corresponding authors.

E-mail: zengly@hbu.cn (L. Zeng); aiguo@nimte.ac.cn (A. Wu); wudi2137@126.com (D. Wu)

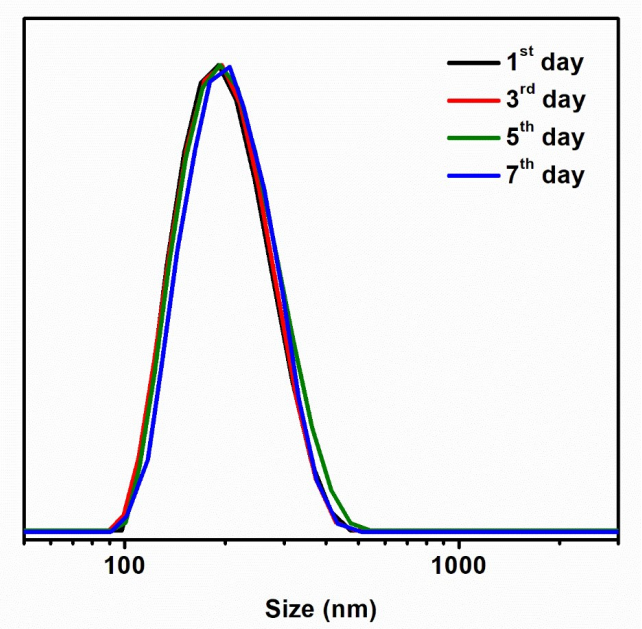

Figure S1. DLS curves of AuNSs@PDA-Ce6 dispersed in ultrapure H_2O between 7 days.

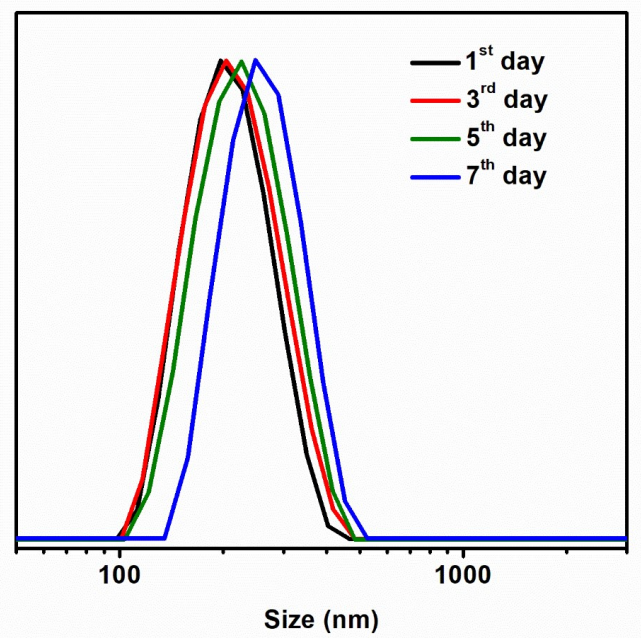

Figure S2. DLS curves of AuNSs@PDA-Ce6 dispersed in saline between 7 days.

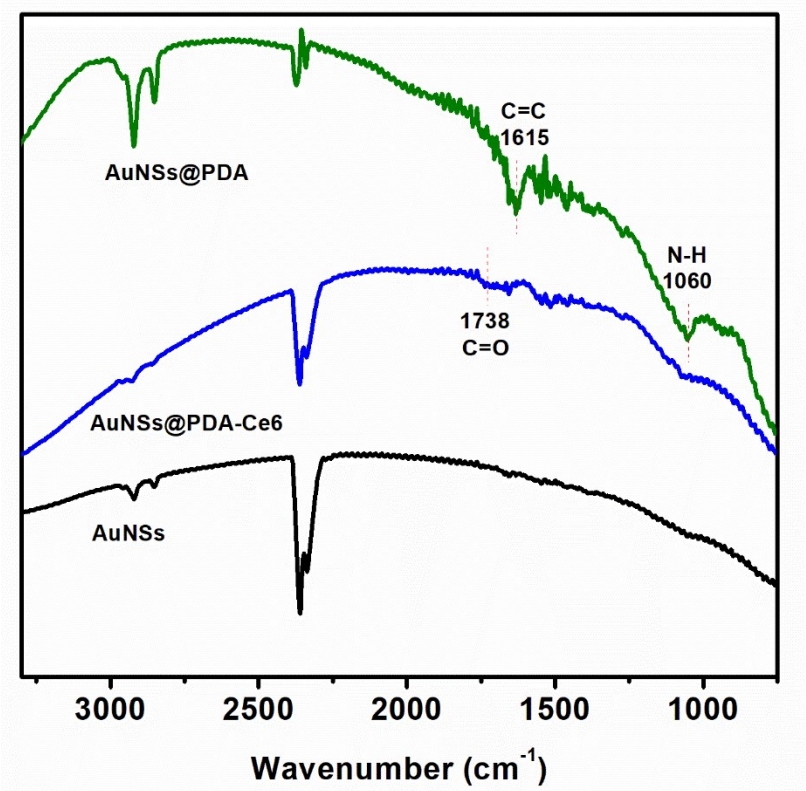

Figure S3. FT-IR spectra of different nanoparticles.

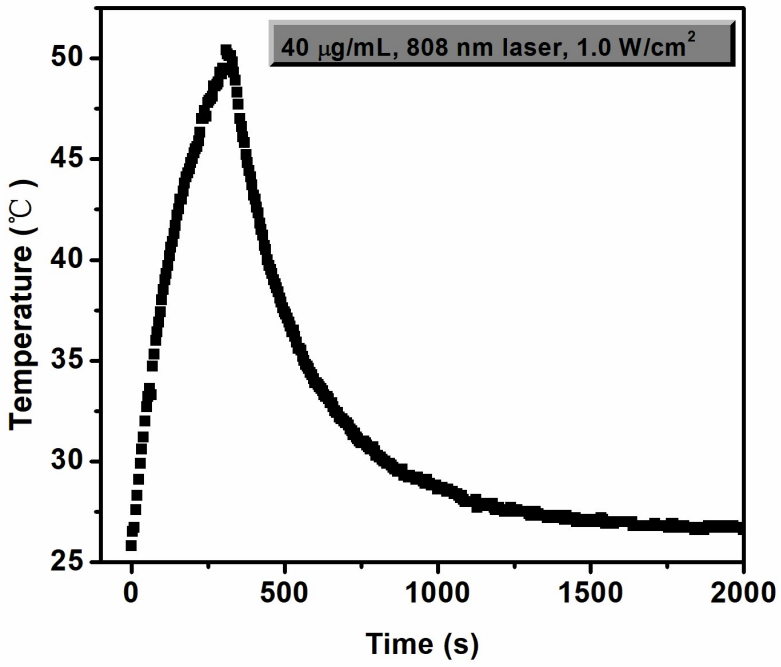

Figure S4. Rising/falling temperature curve of AuNSs

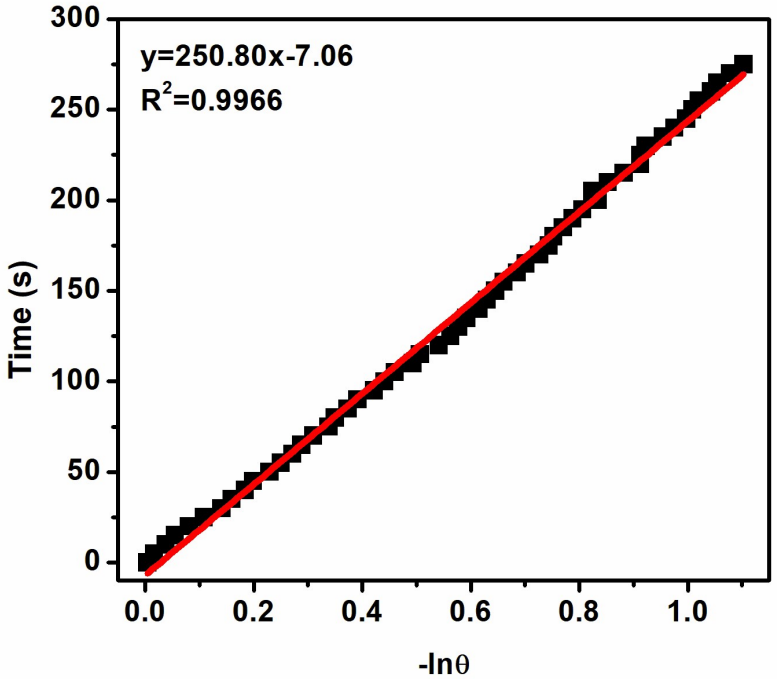

Figure S5. Linear fitting curve (time versus -lnθ) of AuNSs in the falling temperature stage

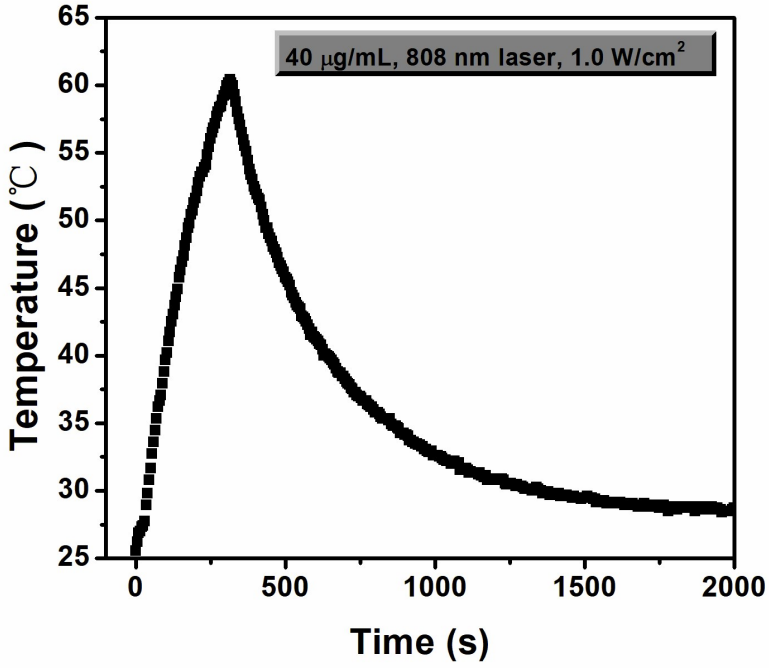

Figure S6. Rising/falling temperature curve of AuNSs@PDA-Ce6

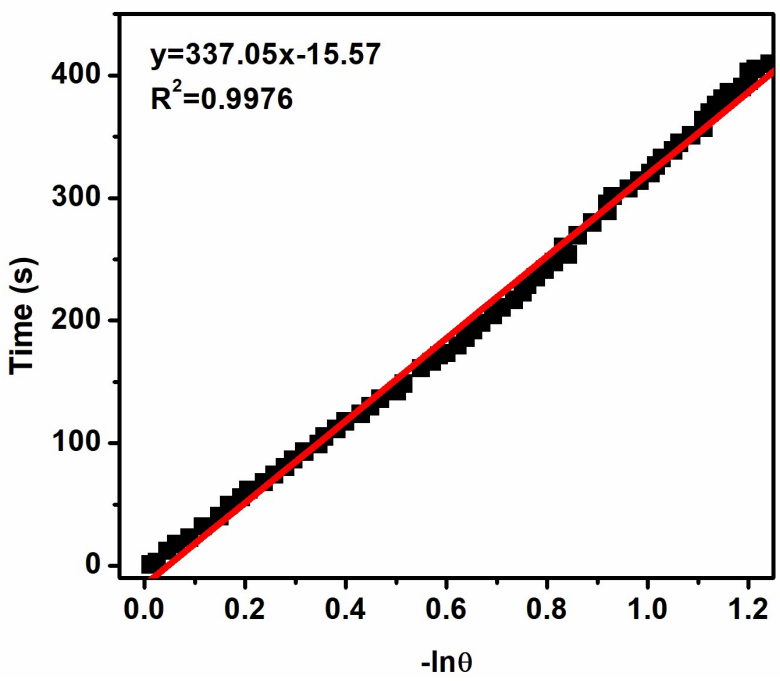

Figure S7. Linear fitting curve (time versus -lnθ) of AuNSs@PDA-Ce6 in the falling temperature stage

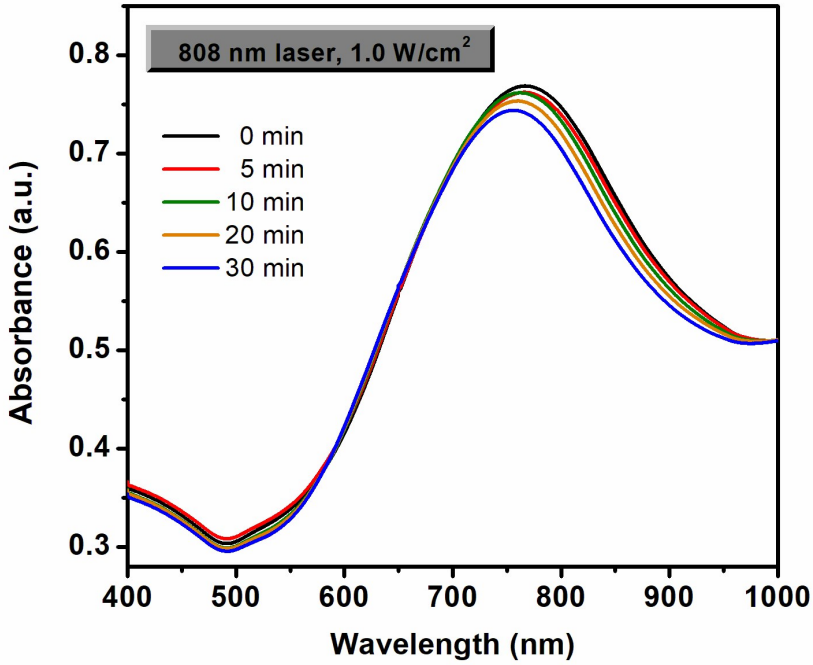

Figure S8. UV-vis absorbance spectra of AuNSs by changing irradiation time

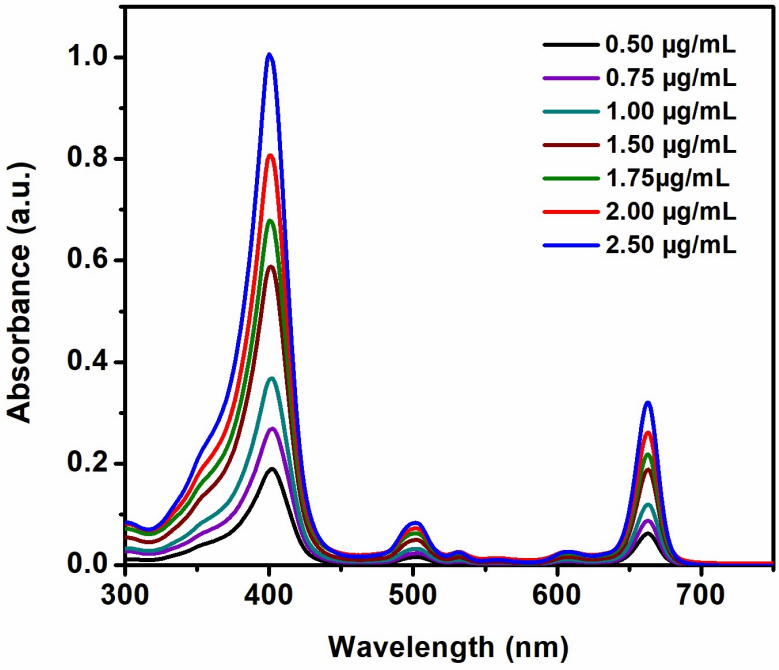

Figure S9. UV-vis absorbance spectra of free Ce6 with different concentrations

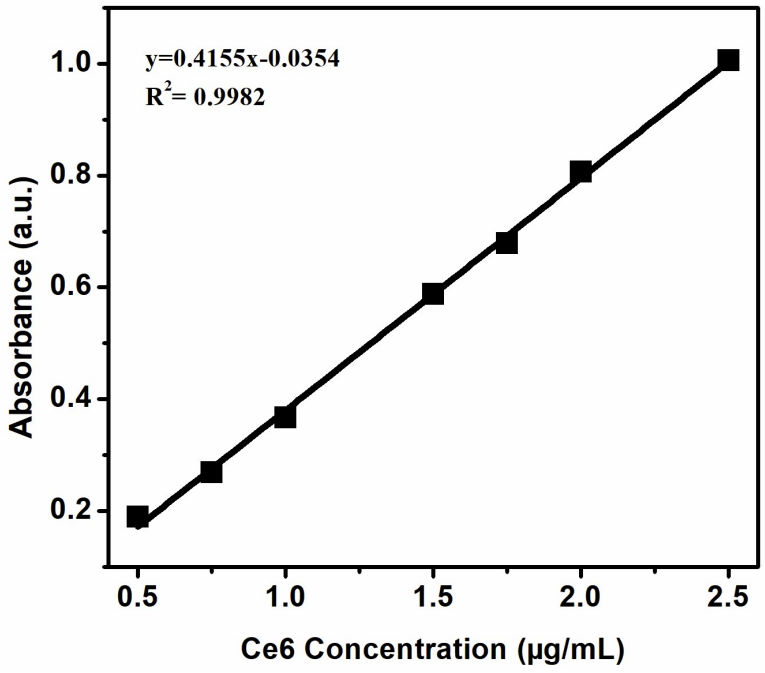

Figure S10. Standard curve of free Ce6

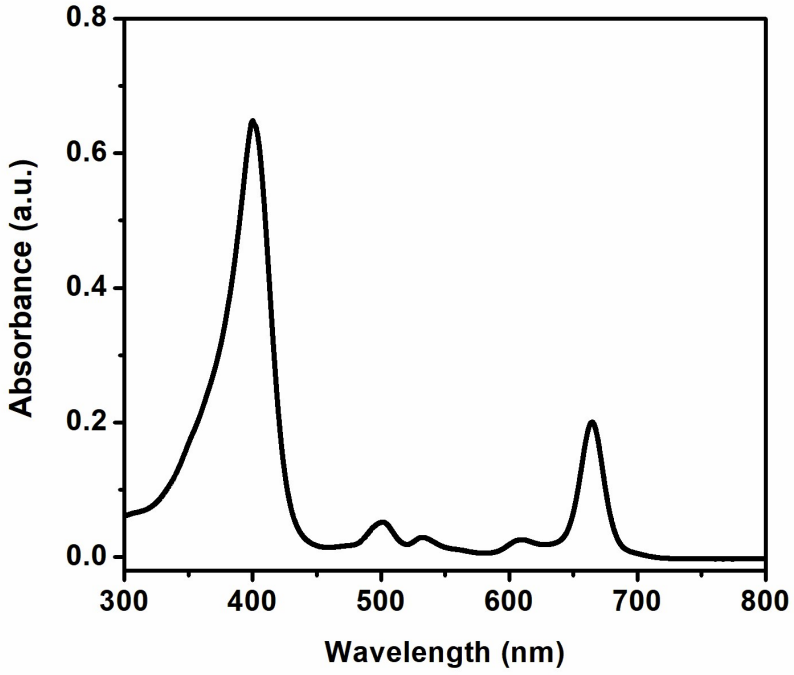

Figure S11. UV-vis absorbance spectrum of free Ce6 by measuring the supernatant of AuNSs@PDA-Ce6

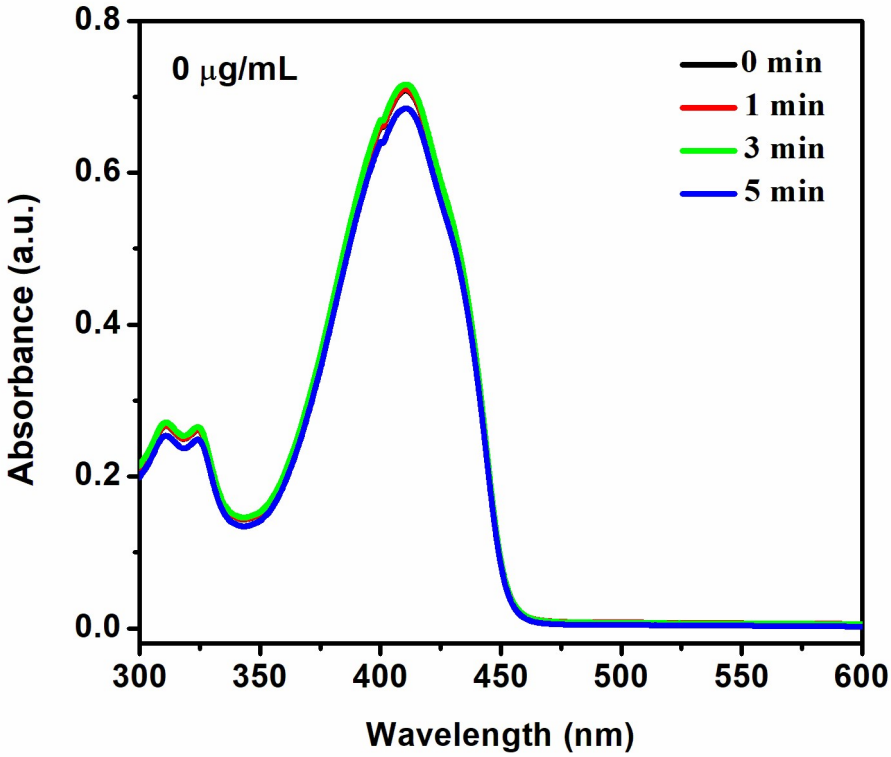

Figure S12. UV-vis absorbance spectra of free DPBF irradiated by a 635 nm laser.

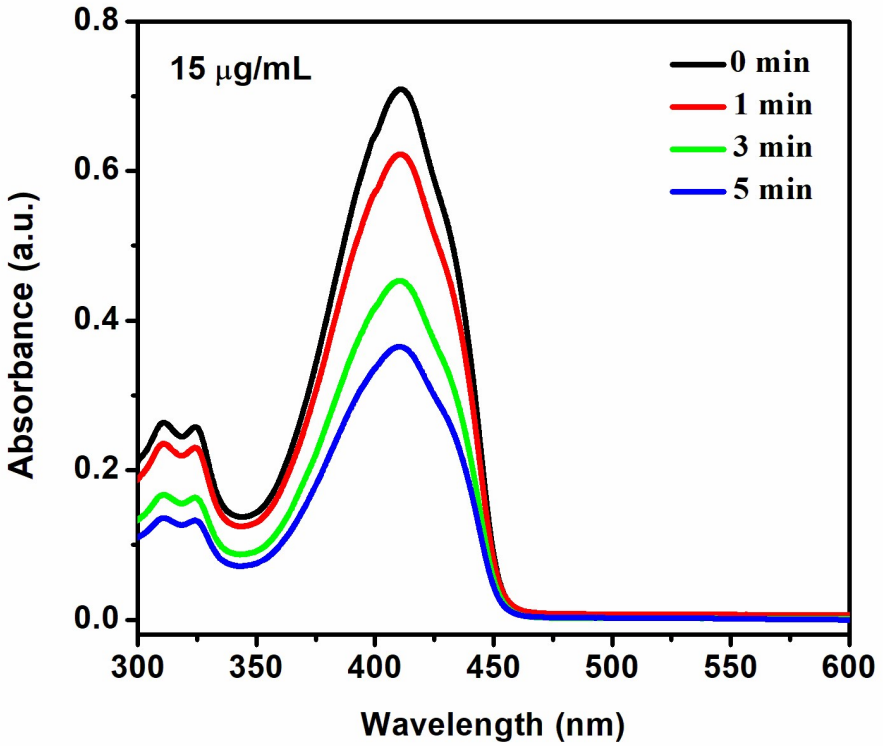

Figure S13. UV-vis absorbance spectra of DPBF mixed with AuNSs@PDA-Ce6 (15 μg/mL) irradiated by a 635 nm laser.

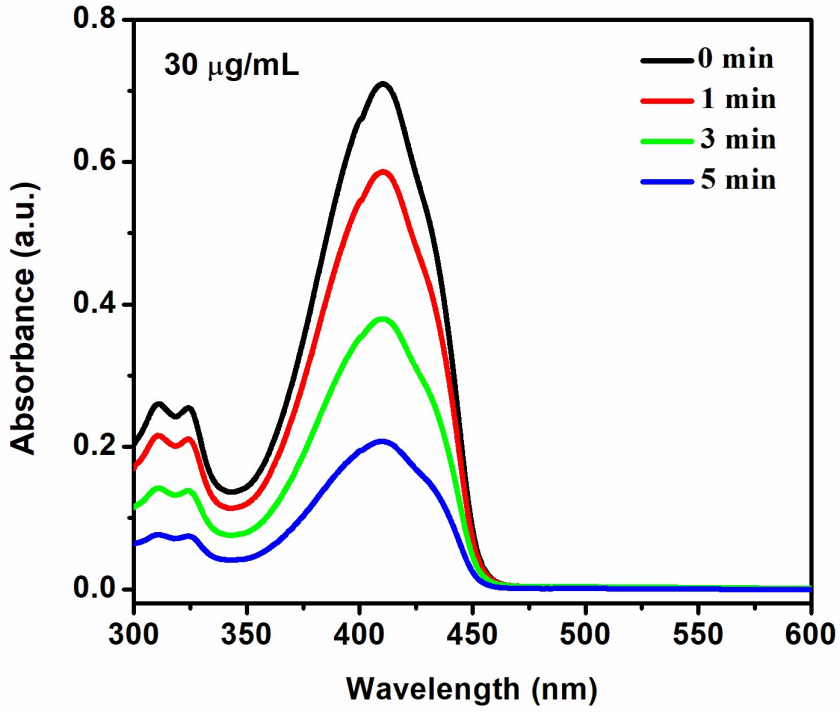

Figure S14. UV-vis absorbance spectra of DPBF mixed with AuNSs@PDA-Ce6 (30 μg/mL) irradiated by a 635 nm laser.

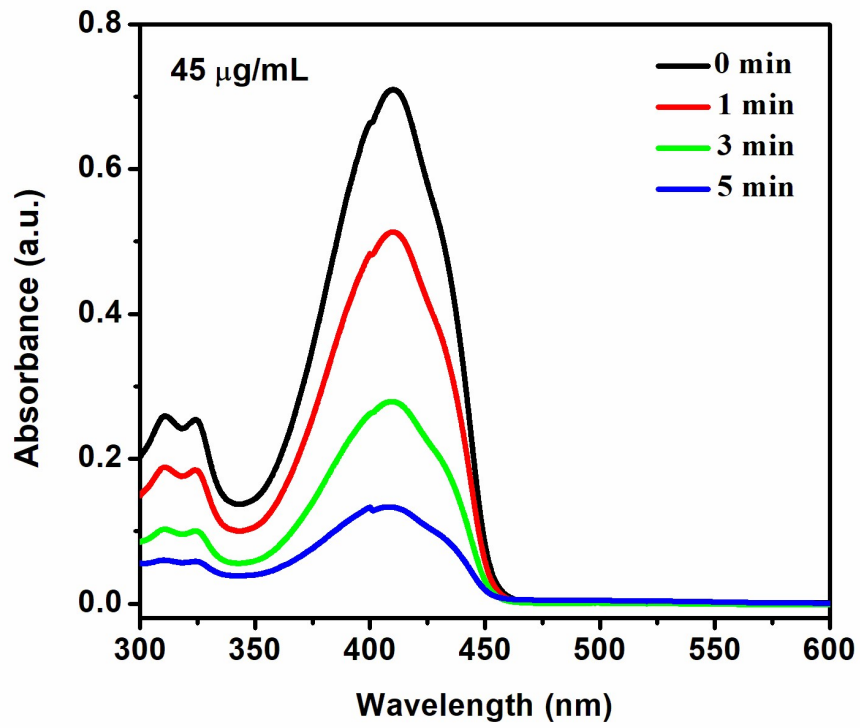

Figure S15. UV-vis absorbance spectra of DPBF mixed with AuNSs@PDA-Ce6 (45 μg/mL) irradiated by a 635 nm laser.

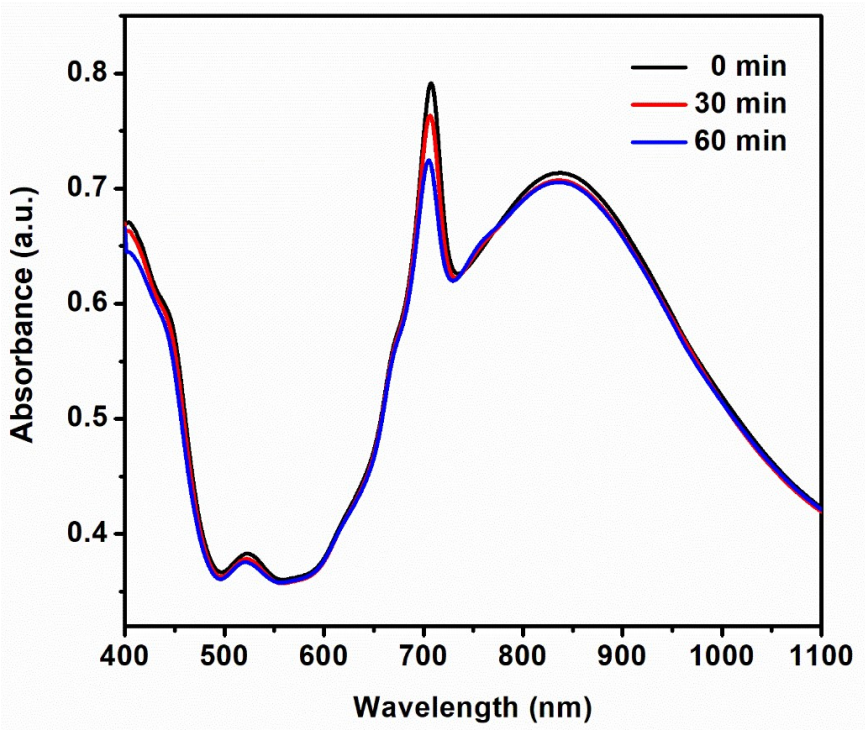

Figure S16. UV-vis absorption spectra of AuNSs@PDA-Ce6 supernatants incubated in 4T1 cells with different time.

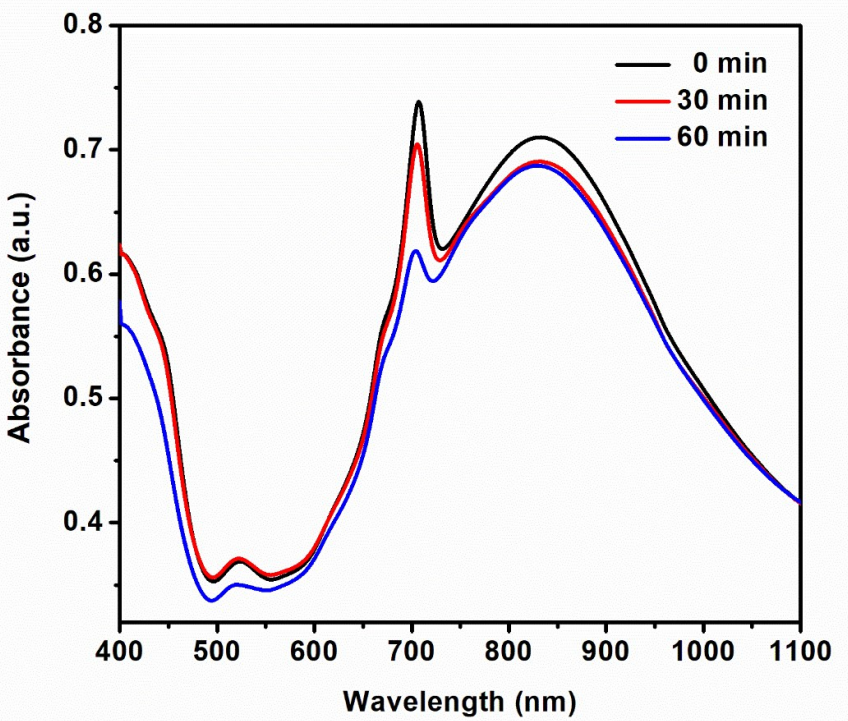

Figure S17. UV-vis absorption spectra of AuNSs@PDA-Ce6 supernatants incubated in blood with different time.

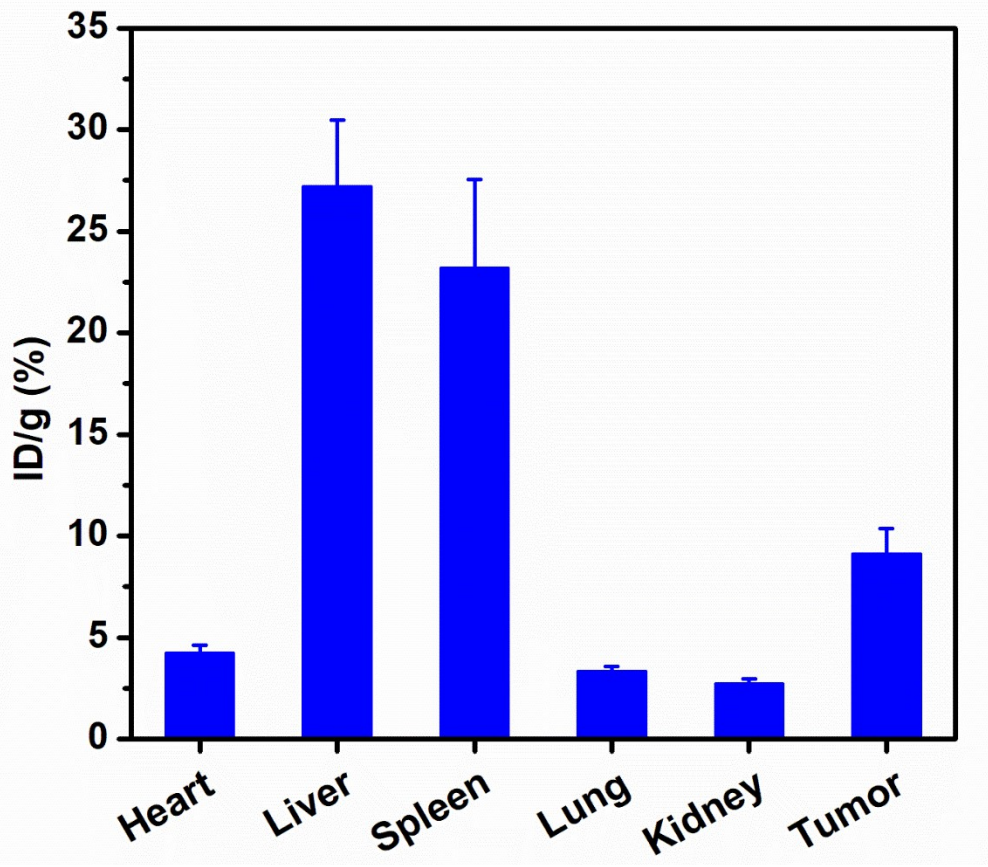

Figure S18. Bio-distribution of AuNSs@PDA-Ce6 in different organs of mice.

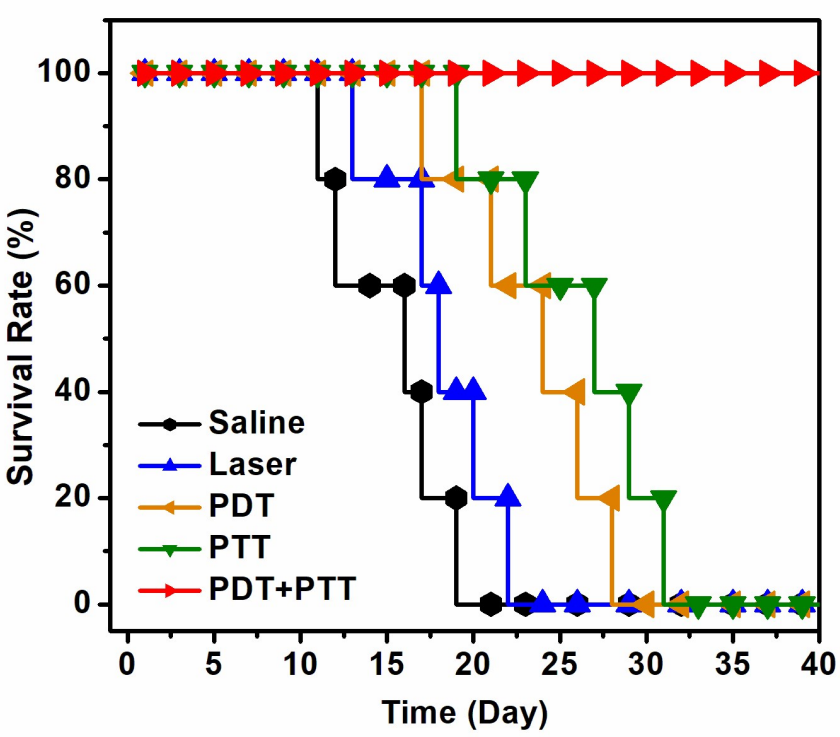

Figure S19. Survival rates of mice in all five groups.

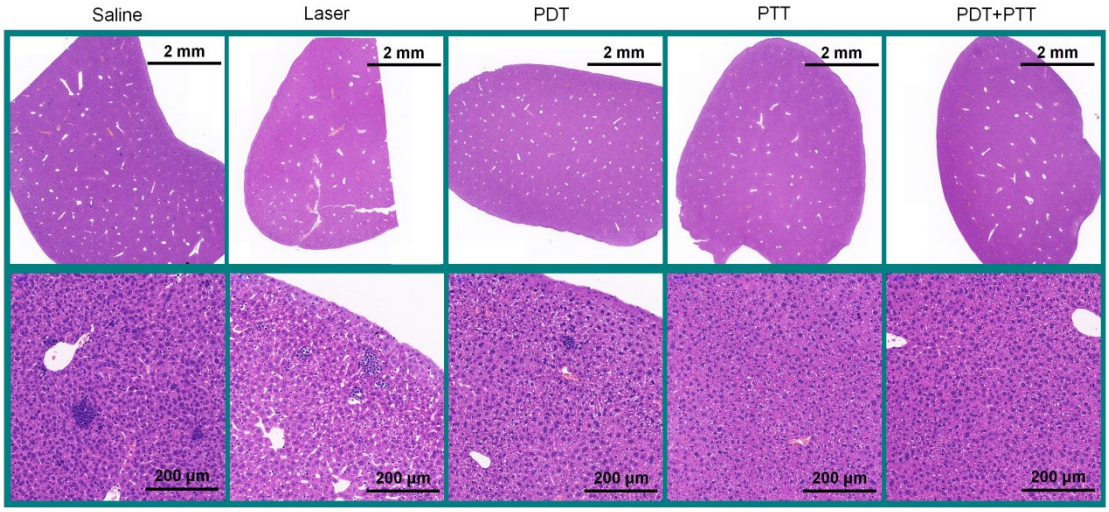

Figure S20. H&E staining images of liver of mice in all five groups.