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Supplementary information

Radioactive hybrid semiconducting polymer nanoparticles for imaging-guided tri-modal therapy of breast cancer

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Tabel S1. Hydrodynamic diameters of SPN_H at the different feeding weights of PCPDTBT, PFODBT and F127.

Feeding weight of PCPDTBT, PFODBT and F127	Hydrodynamic diameter (nm)
1:1:20	110 ± 1.7
1:1:50	111.7 ± 5.0
1:1:100	119.5 ± 2.2
1:1:200	62.1 ± 1.5

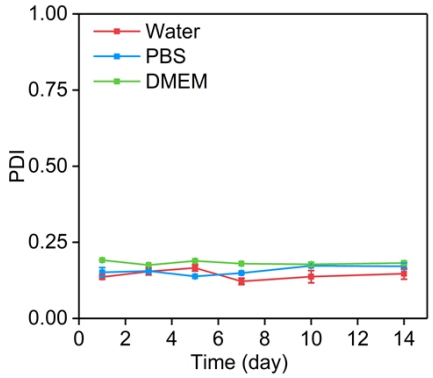

Fig. S1. PDI of SPN_H measured in different solutions (water, PBS and DMEM cell culture medium) at various days (n = 5).

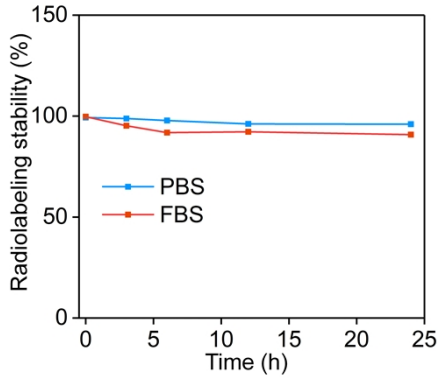

Fig. S2. Radiolabeling stability of SPN_H in different solution systems for various time (n = 3).

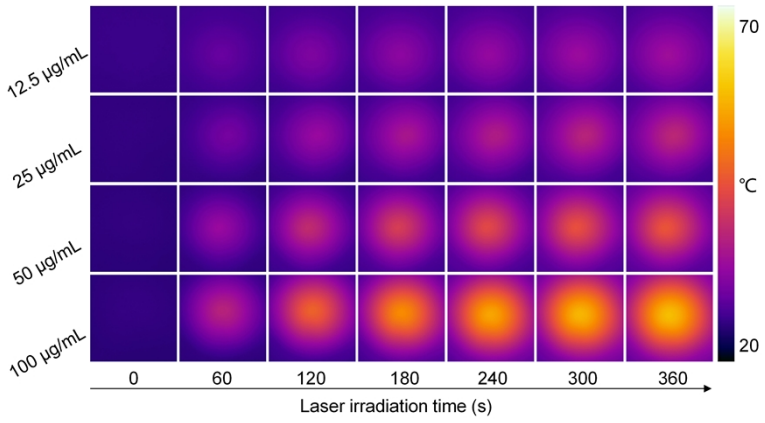

Fig. S3. Thermal images of aqueous solutions containing SPN_H at various SP concentrations (12.5, 25, 50 and 100 μg/mL) under 808 nm laser irradiation (1 W/cm^2) for 360 s.

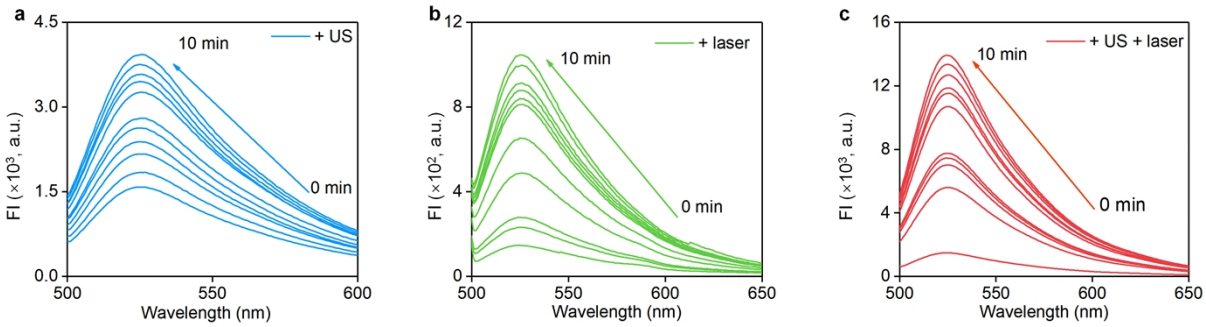

Fig. S4. Fluorescence intensities of SOSG solutions containing SPN_H under different treatments: (a) SPN_H + US, (b) SPN_H + laser, and (c) SPN_H + US + laser.

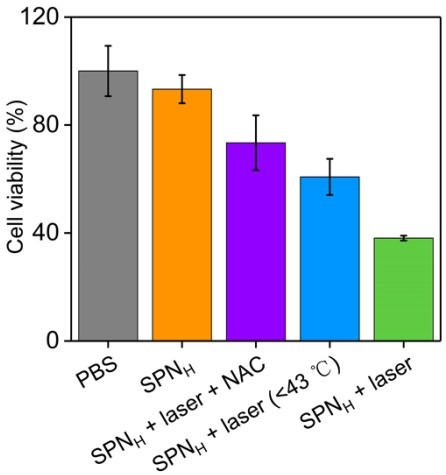

Fig. S5. Cell viability analysis of 4T1 cells in PBS, SPN_H, SPN_H + laser + NAC, SPN_H + laser (< 43 ℃) and SPN_H + laser groups (n = 5).

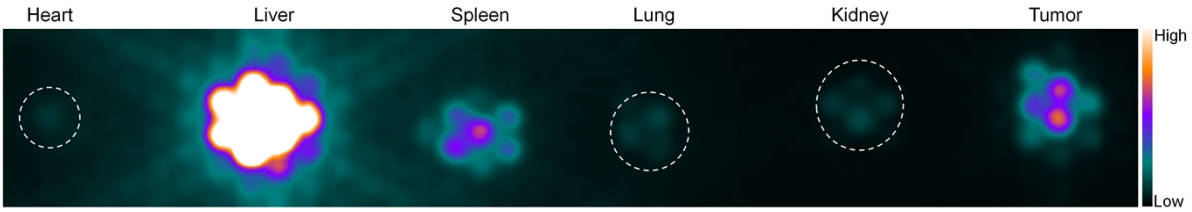

Fig. S6. Ex vivo SPECT imaging of heart, liver, spleen, lung, kidney and tumor separated from SPN_H-injected tumor-bearing mice.

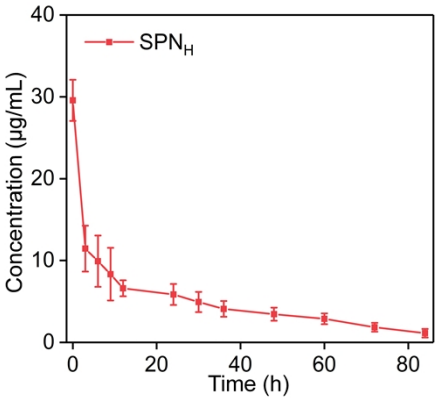

Fig. S7. Pharmacokinetic analysis of SPN_H in mice (n = 3).

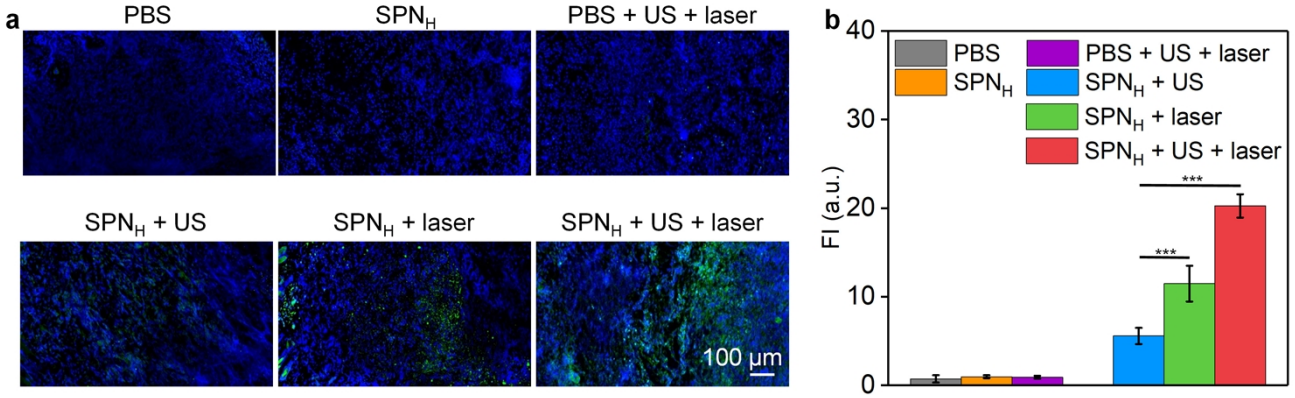

Fig. S8. (a) Fluorescence images of the produced $^1O_2$ in 4T1 subcutaneous tumors in each group. (b) Green fluorescence intensity (FI) of produced $^1O_2$ in 4T1 subcutaneous tumors (n = 3).

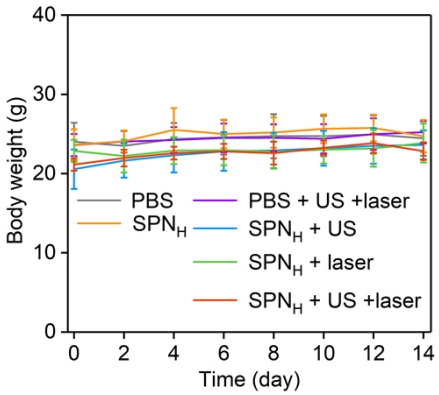

Fig. S9. The body weights of mice in various treatment groups (n = 5).

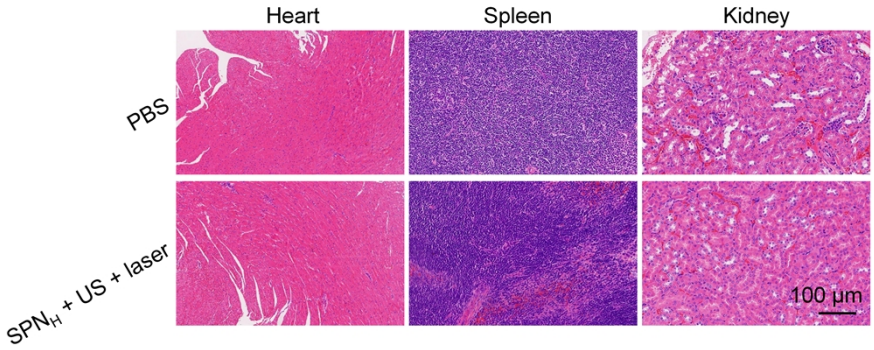

Fig. S10. H&E staining images of heart, spleen and kidney of mice in PBS and SPN_H + US + laser groups.