Electronic Supplementary Material (ESI) for Nanoscale.

Supporting Information

One-Pot Synthesis of Hollow PDA@DOX Nanoparticles for Ultrasound Imaging and Chemo-thermal Therapy in Breast Cancer

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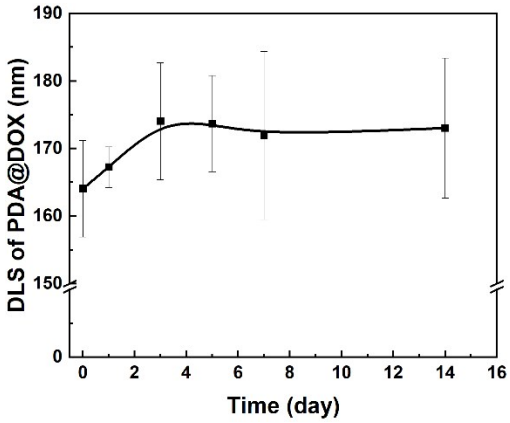

Figure S1, The stability of PDA@DOX NPs during long-term storage in physiological conditions.

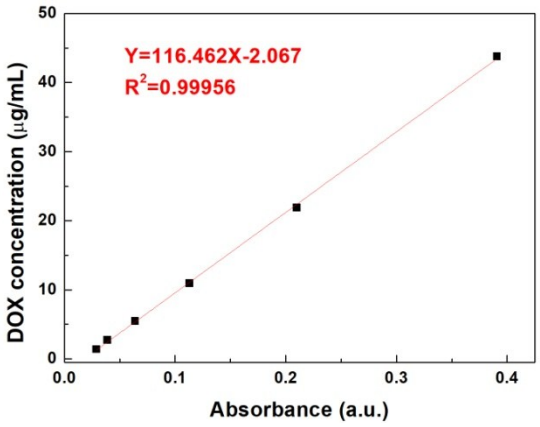

Figure S2, Standard curve of the DOX concentration.

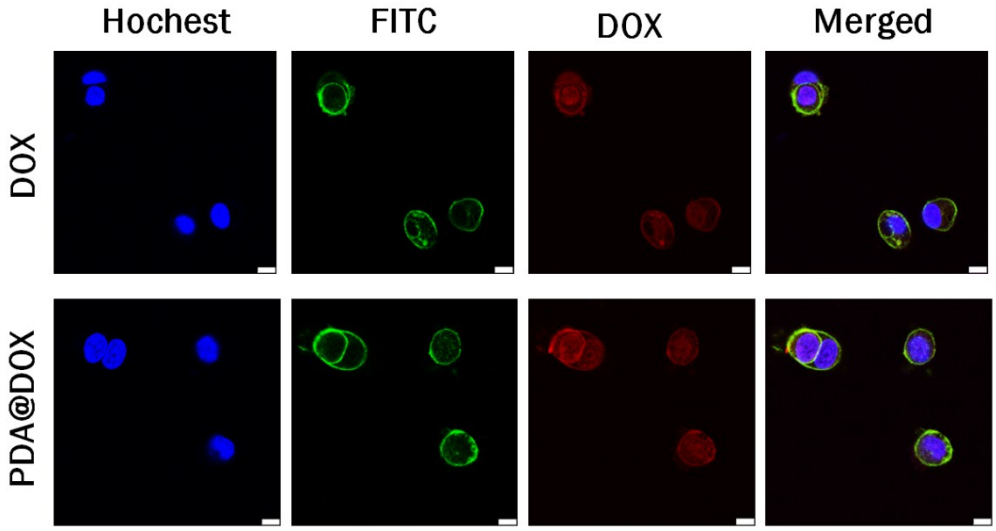

Figure S3, Confocal microscopy images of cellular uptake of DOX and PDA@DOX in 4T1 cells, after incubating with PDA and PDA@DOX (100 μg/mL). Inset scale bar is 10 μ m for all images.

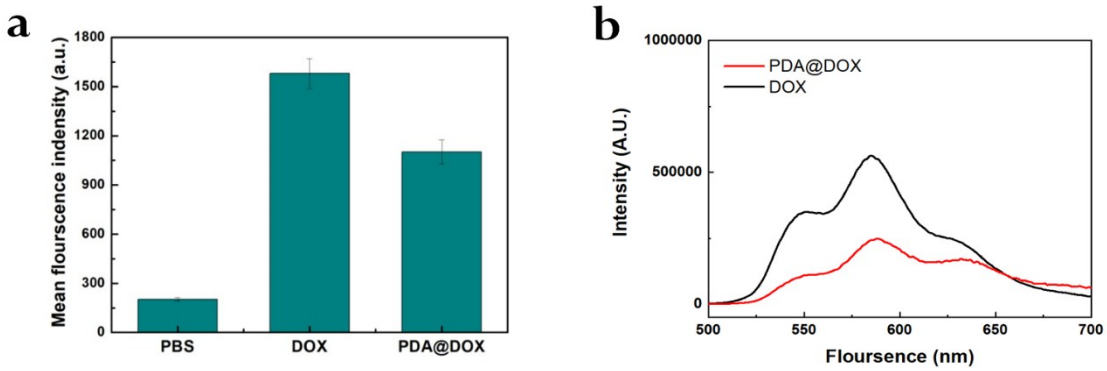

Figure S4a, Flow cytometry analysis of cellular uptake of DOX and PDA@DOX, after incubating with PDA and PDA@DOX (100 μg/mL). S4b, Fluorescence absorption spectrum of DOX and PDA@DOX, excitation=488 nm.

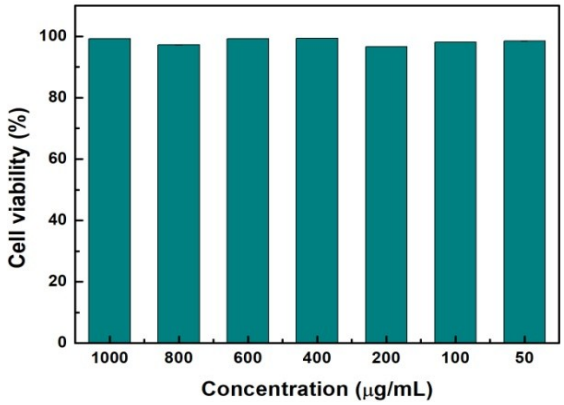

Figure S5, Cytotoxicity of PDA at different concentrations.

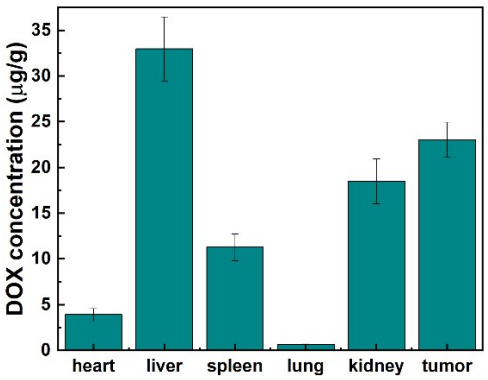

Figure S6, The biodistribution of PDA@DOX NPs in tumor and vital organs 8 h after DOX injection (5mg/kg).

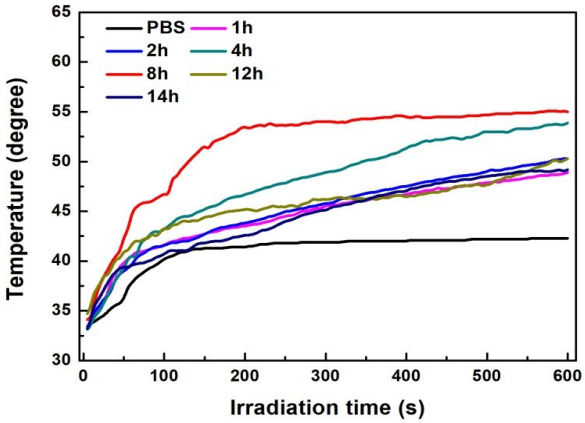

Figure S7, The photothermal temperature changes in tumor of mice recorded by an infrared thermal imaging camera at predetermined time after treated with PDA@DOX at predetermined time (1, 2, 4, 8, 12 and 14 h) and saline.

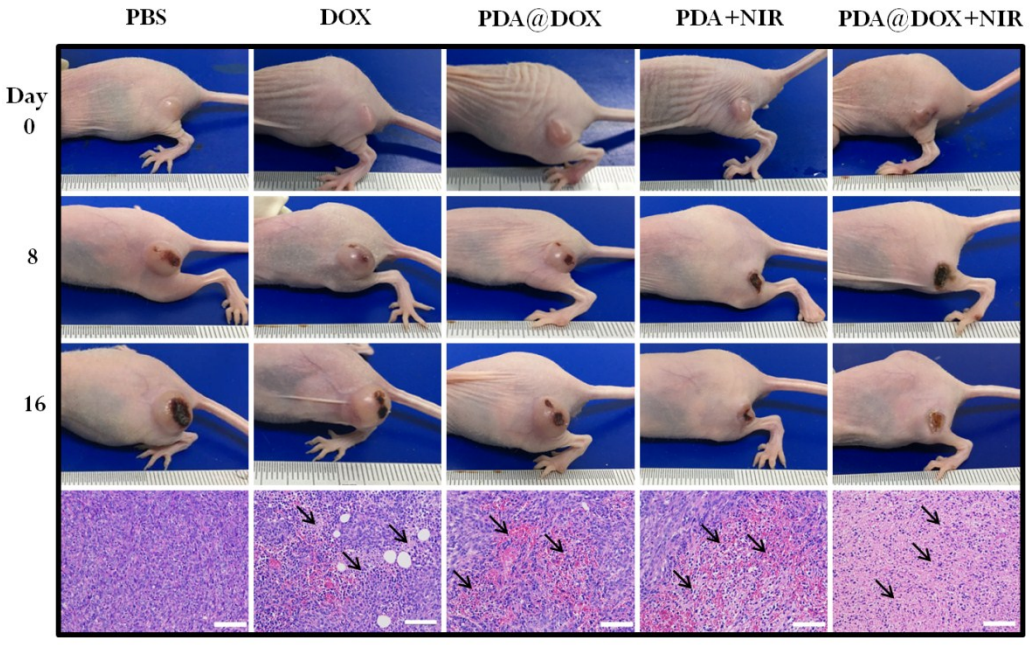

Figure S8, The real photographs of mice in all five groups on different days under various

treatments, and H&E-stained images of main organs collected from mice after different treatments on the 16th day (scale bar: 50 μm).

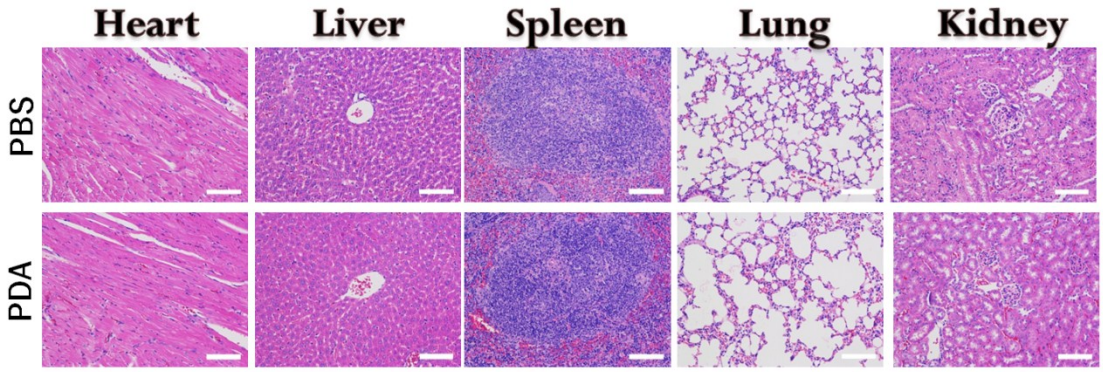

Figure S9, H&E-stained images of main organs collected from mice on the 21th day after injection of PBS and PDA (scale bar: 100 μm).

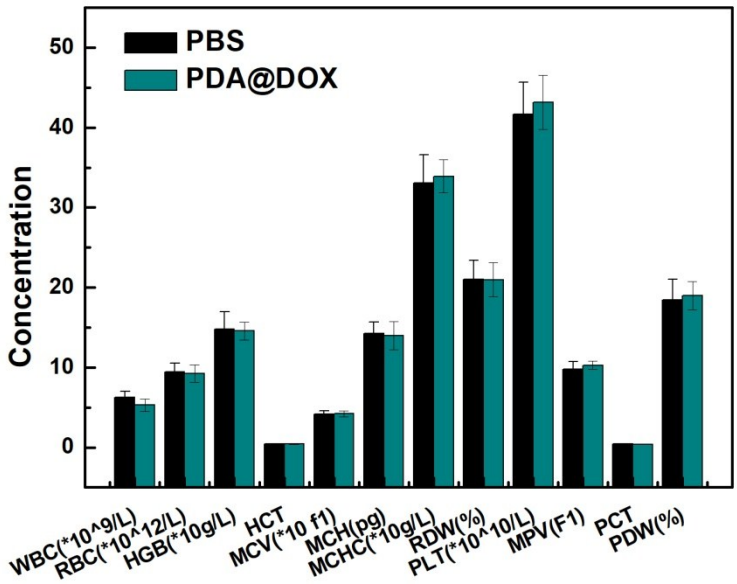

Figure S10, Hematological analysis of the mice after i.v. injection of PDA@DOX. Mean ± SD (n = 3).

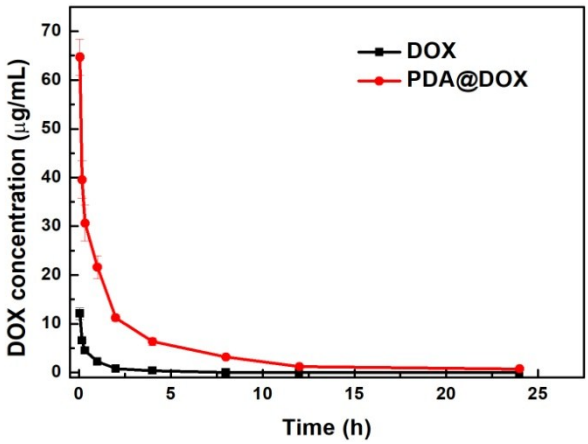

Figure S11, Pharmacokinetic profile of the PDA@DOX and DOX following intravenous injection in mice at a single equivalent dose of 5 mg/kg of DOX. Mean ± SD (n = 3).

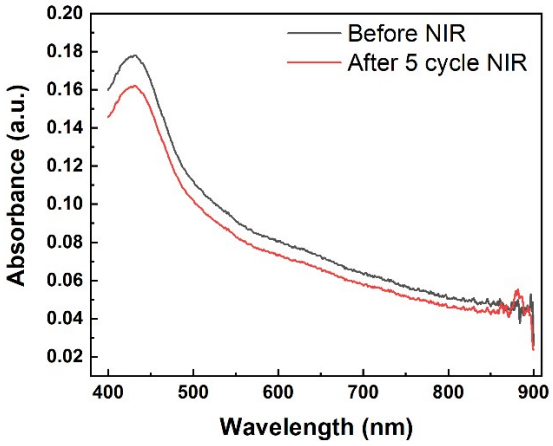

Figure S12, UV absorption curve of PDA@DOX NPs before and after multiple photothermal heating.