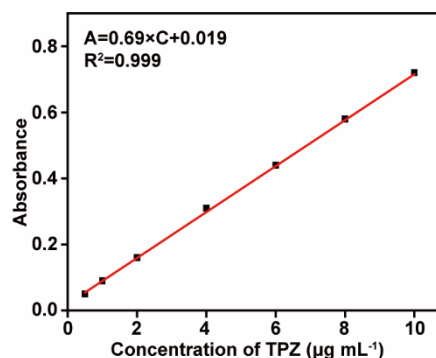
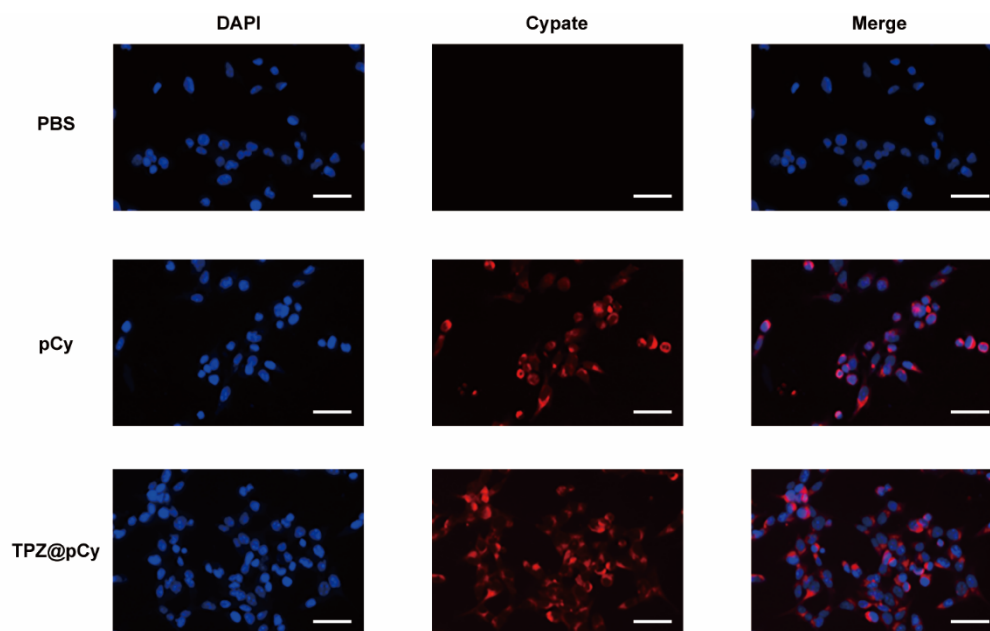


# Supplementary Materials: Light-Decomposable Polymeric Micelles with Hypoxia-Enhanced Phototherapeutic Efficacy for Combating Metastatic Breast Cancer

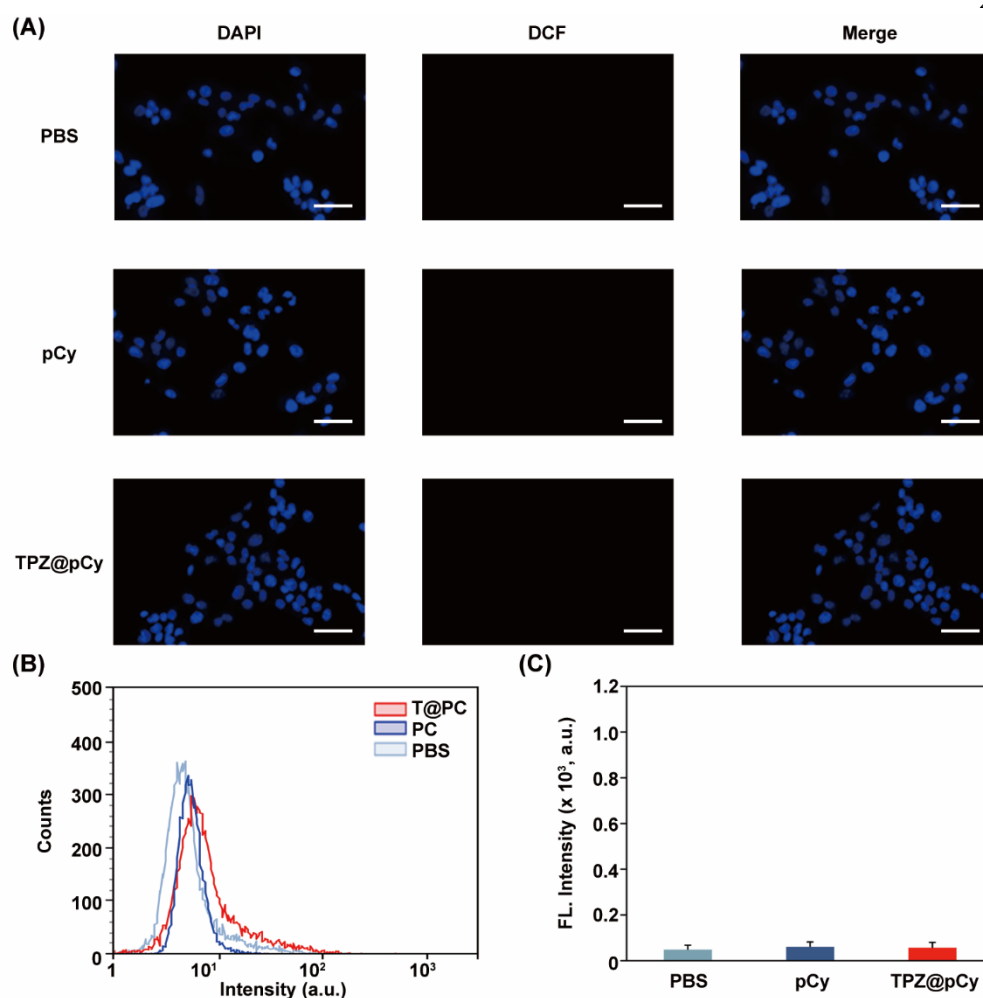
Yuanyuan Li, Aiyang Tong, Peiyuan Niu, Wenjing Guo, Yangye Jin, Yi Hu, Pei Tao and Wenjun Miao



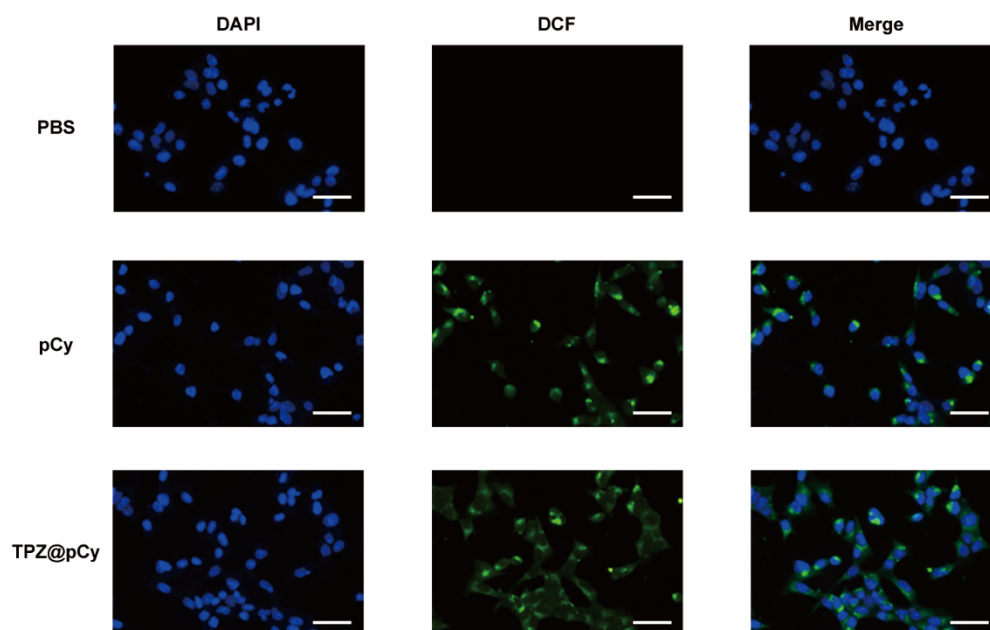
**Figure S1.** The calibration curve of TPZ in methanol, concentration range: 0.5–10 μg mL<sup>-1</sup>.



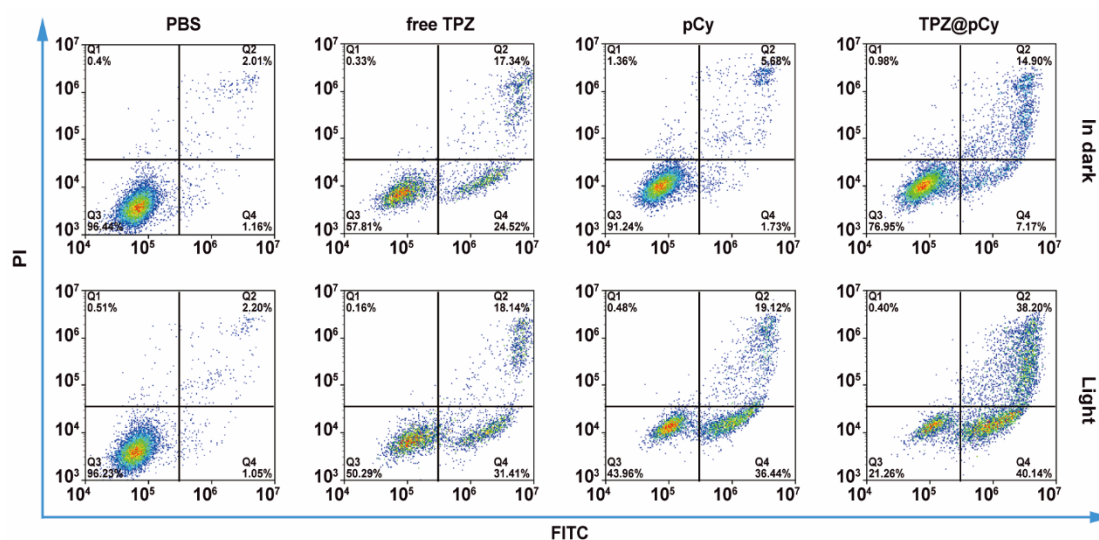
**Figure S2.** Fluorescence images of 4T1 cells treated with PBS, pCy or TPZ@pCy (20 μg mL<sup>-1</sup>, equivalent to pCy) for 2 h, respectively. Cell nuclei was stained with DAPI (blue). Scale bar: 50 μm.



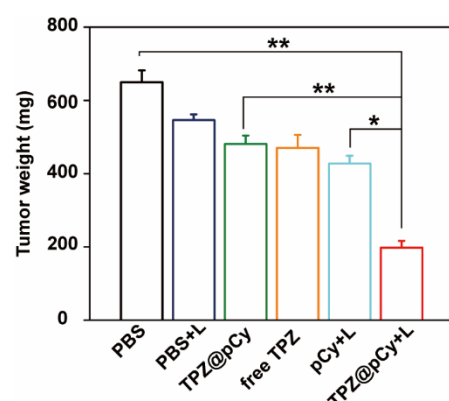
**Figure S3.** Fluorescence images of 4T1 cells incubated with PBS, pCy or TPZ@pCy ( $50 \mu\text{g mL}^{-1}$  of pCy) for 2 h in dark. **(A)** Intracellular ROS generation was detected with DCFH-DA (green) and cell nuclei was stained with DAPI (blue). Scale bar:  $50 \mu\text{m}$ . **(B)** Flow cytometry analysis of 4T1 cells treated as identical conditions as above. **(C)** Plot showing the fluorescence intensity corresponding to **(B)**.



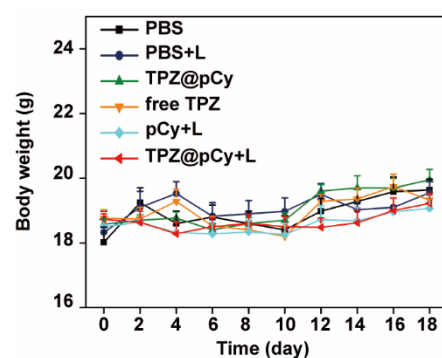
**Figure S4.** Fluorescence images of 4T1 cells incubated with PBS, pCy or TPZ@pCy ( $50 \mu\text{g mL}^{-1}$  of pCy) for 2 h and irradiated with 808 nm laser ( $0.48 \text{ W cm}^{-2}$ , 3 min). Intracellular ROS generation was detected with DCFH-DA (green) and cell nuclei was stained with DAPI (blue). Scale bar:  $50 \mu\text{m}$ .



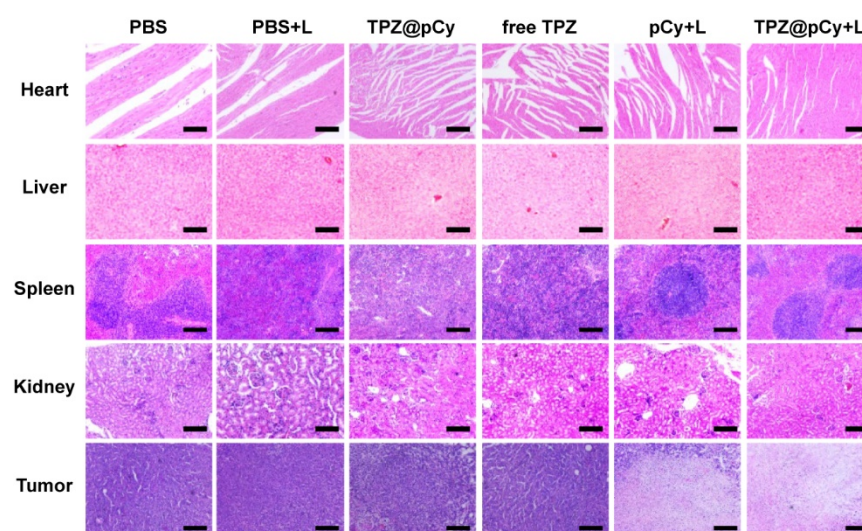
**Figure S5.** Flow cytometry analysis of apoptosis/necrosis of 4T1 cells incubated with pCy, free TPZ or TPZ@pCy ( $50 \mu\text{g mL}^{-1}$  of pCy) for 2 h and then irradiated with 808 nm ( $0.48 \text{ W cm}^{-2}$ , 3 min) or in dark, using the Annexin V-FITC/PI staining.



**Figure S6.** Tumor weight of 4T1-bearing tumor mice received various treatments. Data are shown as mean  $\pm$  S.D. ( $n = 6$ ). \*  $p < 0.05$ , \*\*  $p < 0.01$ .



**Figure S7.** Body weight variation of tumor-bearing mice during treatment periods. Data are shown as mean  $\pm$  S.D. ( $n = 6$ ).



**Figure S8.** Representative photographs of H&E staining of major organs (heart, liver, spleen and kidney). Scale bar: 100  $\mu$ m.