Supplementary Material

ATP-Responsive and Near-Infrared-Emissive Nanocarriers for Anticancer Drug Delivery and Real-Time Imaging

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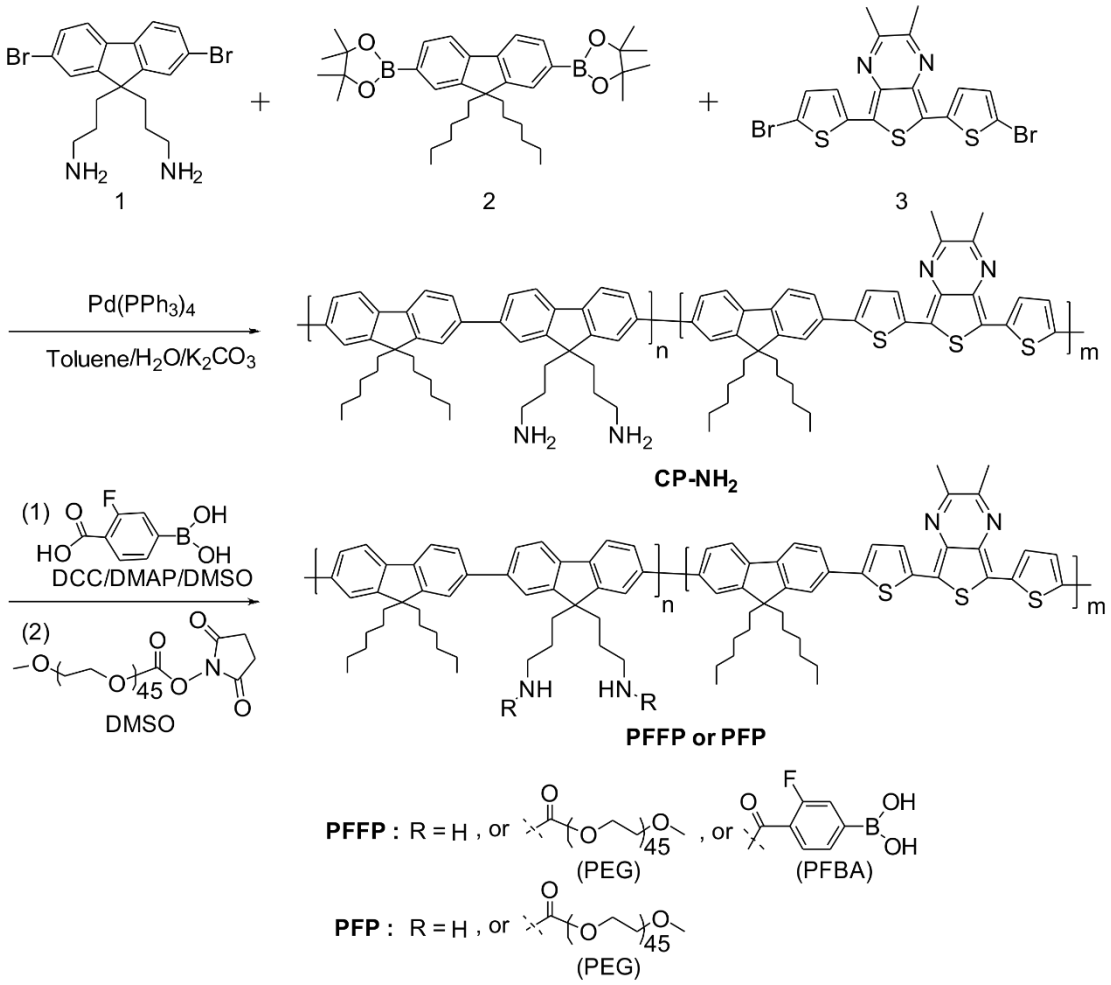

Figure S1. The synthesis route of the conjugated polymers PFFP or PFP.

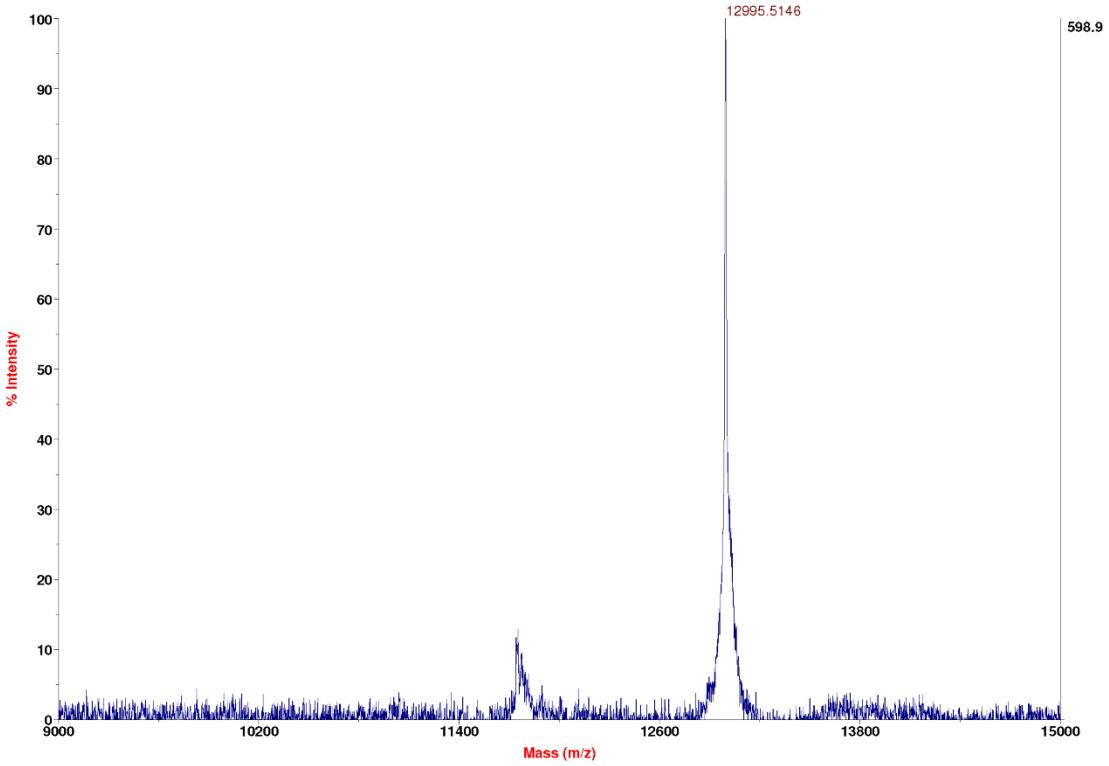

Figure S2. The MALDI-TOF MS spectrum of CP-NH_2.

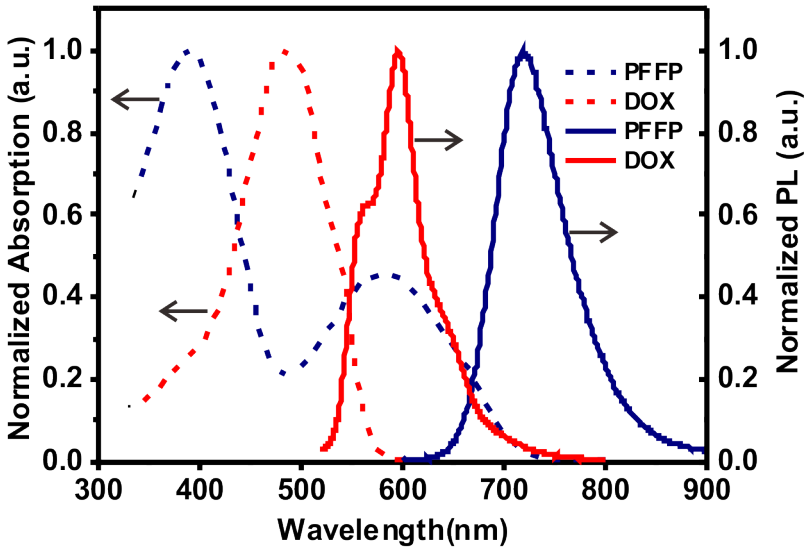

Figure S3. The normalized UV/Vis absorption and emission spectra of DOX and PFFP NPs.

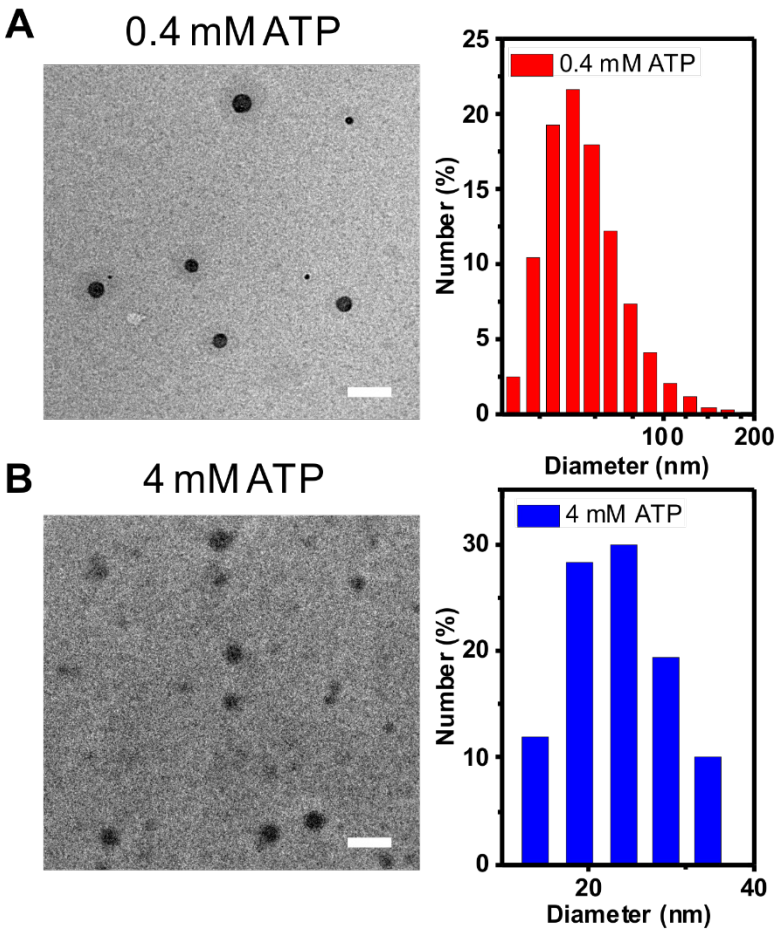

Figure S4. SEM images and size distribution of PFFP NPs at in 0.4 and 4 mM ATP aqueous solution (pH=7.4). Scale bars are 200 nm.

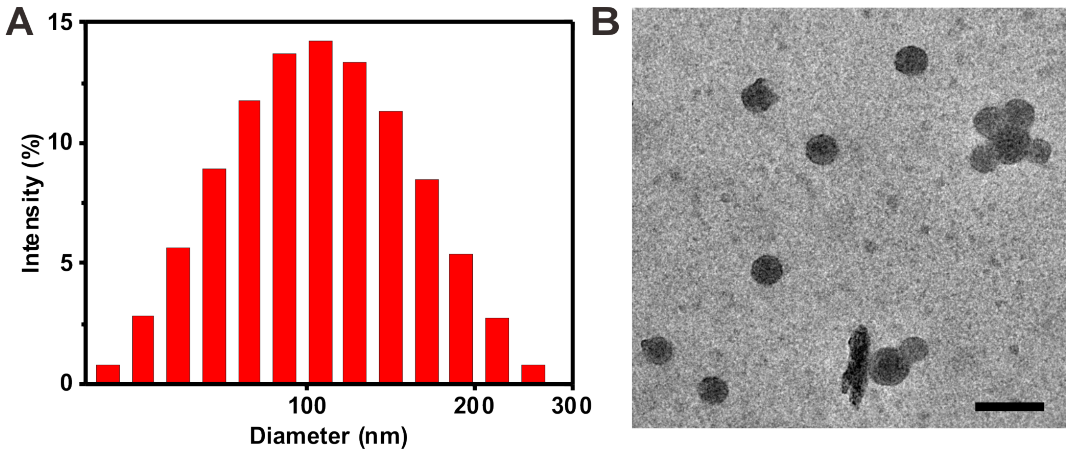

Figure S5. (A) Size distribution and (C) SEM image of DOX/PFFP NPs in 1 mM H_2O_2 aqueous solution. Scale bar is 200 nm.

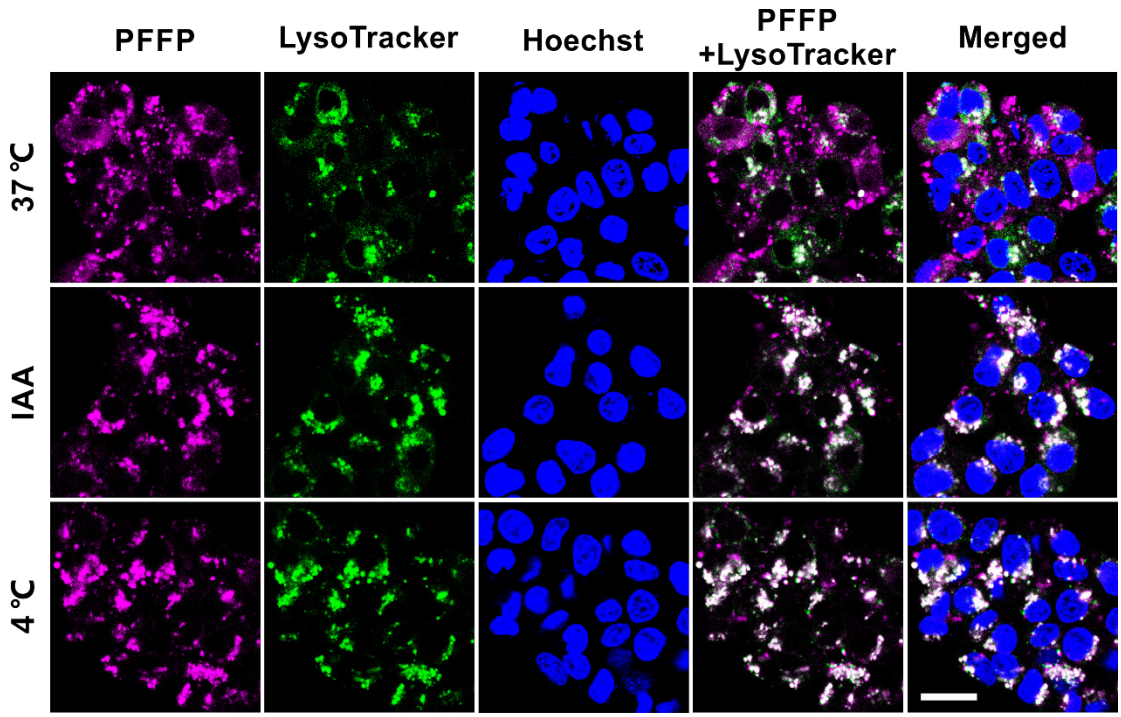

Figure S6. Intracellular delivery of PFFP NPs in HepG2 cells treated with different formulations observed by CLSM, including at 37 °C, 4 °C and with the ATP inhibitor iodoacetic acid (IAA) at 37 °C. The endosomes and lysosomes were stained by LysoTracker Green, and the nuclei were stained by Hoechst 33342. Merged (PFFP/ LysoTracker/Hoechst). Scale bar is 20 μm.

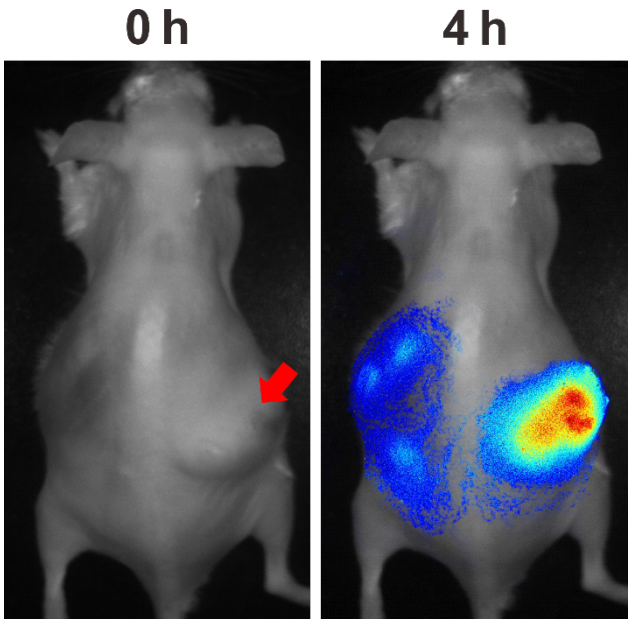

Figure S7. *In vivo* fluorescence images of the HepG2 tumor-bearing mice at 4h after intravenous injection of PFFP NPs. Arrow indicates the site of tumor.

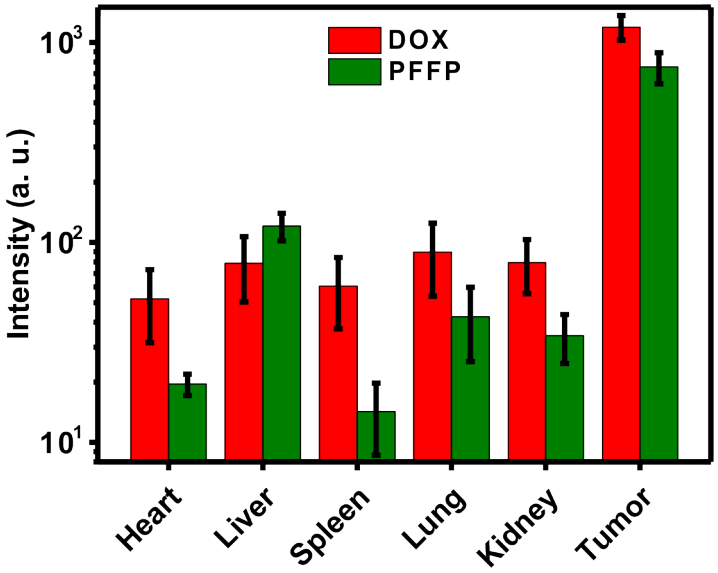

Figure S8. The DOX and PFFP biodistribution in various organs and HepG2 xenograft tumors 24 h after administration of DOX/PFFP NPs at a DOX-equivalent dose of 2 mg/kg. Error bars indicate SD (n = 3).

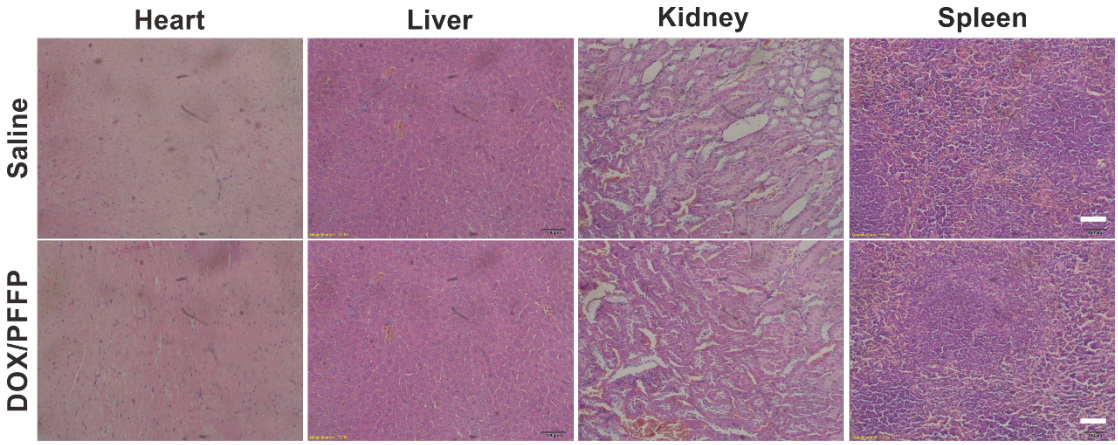

Figure S9. Histological observation of tissue sections from different organs of mice after the treatment with either saline or DOX/PFFP NPs (the DOX-equivalent dose of 2 mg/kg) at day 15. The organ sections were stained with hematoxylin and eosin (HE). Scale bar is 100 μm.