Supporting Information

Color-tunable AIE-active Conjugated Polymer Nanoparticles as Drug Carrier for Self-indicated Cancer Therapy *via* Intramolecular FRET Mechanism

Ziyu Wang[a, †], Cheng Wang[b, †], Yayun Fang,[a] Hong Yuan,[b,*] Yiwu Quan[a,*] and Yixiang Cheng[a,*]

[a]MOE Key Laboratory of Mesoscopic Chemistry, School of Chemistry and Chemical Engineering, Nanjing University, Nanjing 210023, P. R. China

[b]College of Pharmaceutical Science, Zhejiang University, 866 Yuhangtang Road, Hangzhou, 310058, P. R. China

[†]These authors contributed equally to this work. All authors have given approval to the final version of the manuscript.

* Corresponding author. E-mail: yuanhong70@zju.edu.cn; quanyiwu@nju.edu.cn; yxcheng@nju.edu.cn

Experimental section

Measurements and materials. All solvents and reagents were commercially available and analytical reagent grade. NMR spectra were obtained from Bruker Avance 400 spectrometer 400 MHz for ^{1}H NMR and reported as parts per million (ppm) from the internal standard TMS. The UV-*vis* absorption spectra were recorded on Shimadzu UV-3600 spectropolarimeter. Fluorescence spectra were obtained from an Hitachi F-7000 spectrometer. Molecular weight was determined by gel permeation chromatography (GPC) with a Waters 244 HPLC pump, and THF was used as solvent relative to polystyrene standards. Morphological studies were carried out with JEM-100S transmission electron microscopy. The high-performance liquid chromatography (HPLC) was determined on Agilent 1200 series. Hela (human cervical carcinoma) and A549 (human lung carcinoma) cell lines were purchased from Institute of Biochemistry and Cell Biology (Shanghai, China). The thermostatic shaker was HZQ-C (Haerbin Dongming Medical Instrument Factory, China). The cell viability was estimated according to the absorption values determined by a microplate reader (Bio-Rad, model 680, USA) at the wavelength of 570 nm. The cell-imaging was observed using a confocal laser scanning microscopy (CLSM, BX61W1-FV1000, Olympus, Japan).

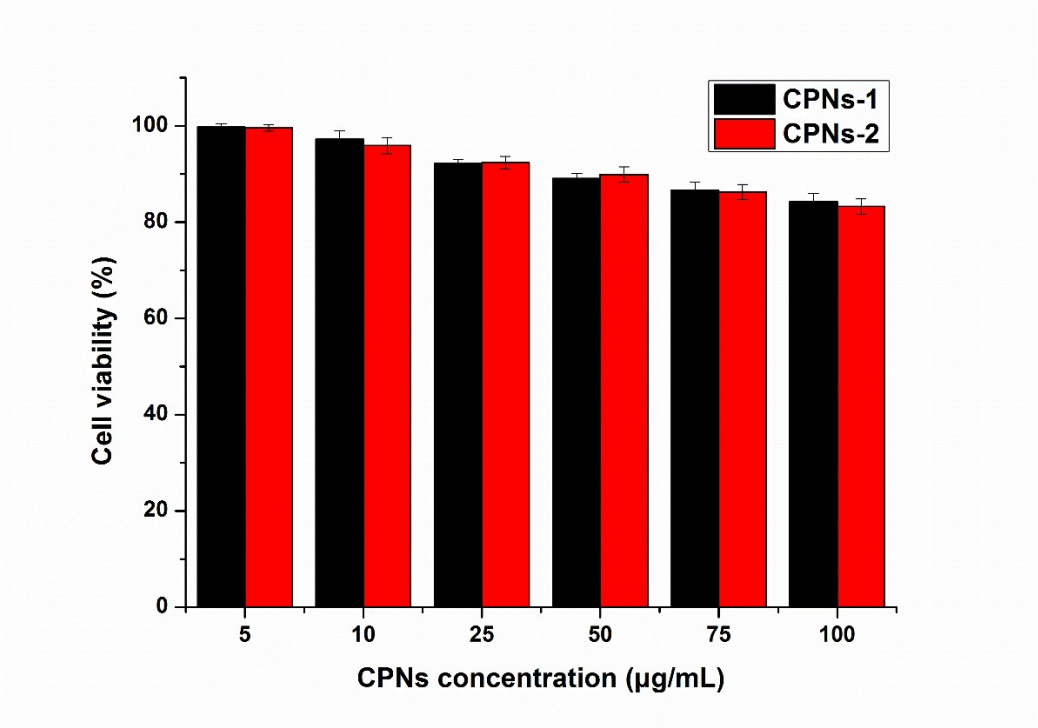


Fig. S1 Cell viabilities of L02 cells incubated with **CPNs-1** and **CPNs-2** at different polymer concentrations for 48 h. Results were expressed as mean ± S.D. (n = 3).

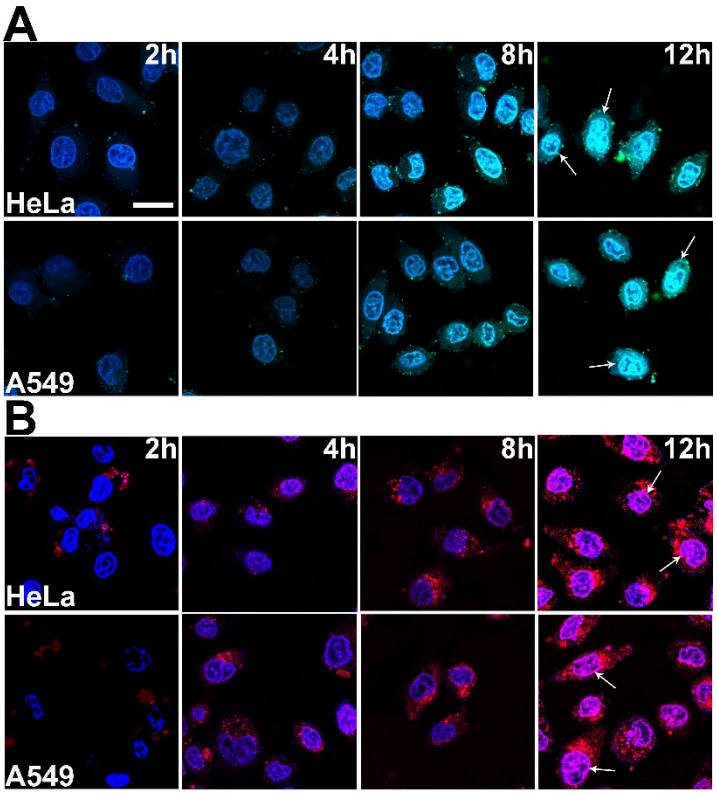
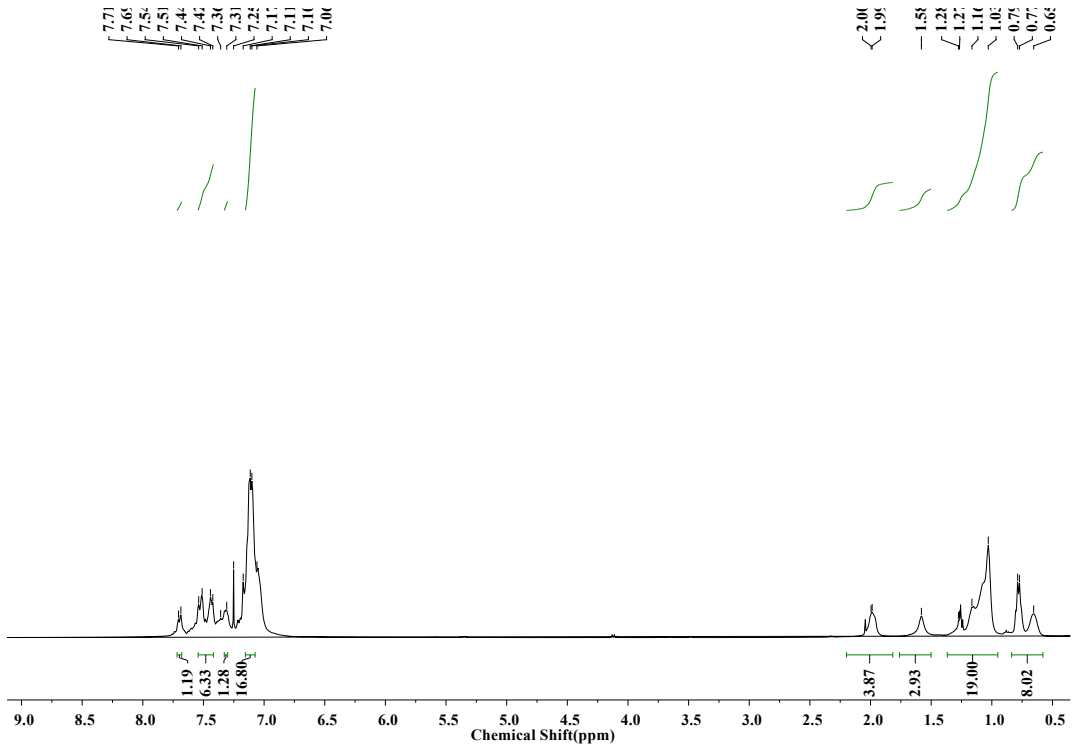


Fig. S2 Time dependent cellular imaging of drug free **CPNs-1** (A) and **CPNs-2** (B) in HeLa and A549 cells. For each channel, blue: Hoechst 33342 stained nuclei; green: signal from drug free **CPNs-1**; red: signal from drug free **CPNs-2**. Scale bar: 20 μm.

^{1}H NMR spectra

^{1}H NMR of **P-1**



^{1}H NMR of **P-2**