Supporting Information for

Original article

Platinum complexes of curcumin delivered by dual-responsive polymeric nanoparticles improve chemotherapeutic efficacy based on the enhanced anti-metastasis activity and reduce side effects

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Scheme S1 Synthetic scheme of Pt-CUR.

Scheme S2 Synthetic scheme of PPP copolymer.

HO S S OH
$$\frac{CH_3 - C}{Reflux}$$
 S $\frac{CH_3 + C}{Reflux}$ OH $\frac{CH_3 - C$

Scheme S3 Synthetic scheme of PSP copolymer.

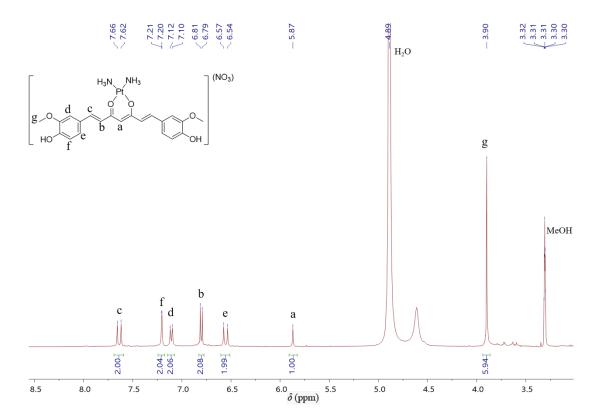


Figure S1 1 H NMR spectrum of Pt–CUR in methanol-d.

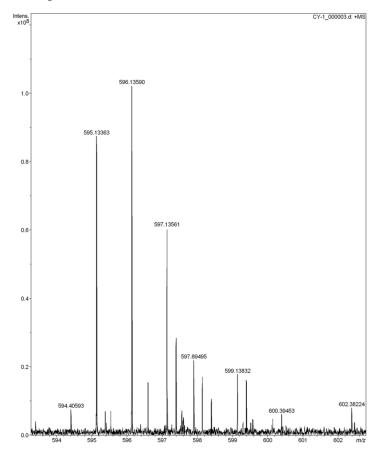


Figure S2 ESI-MS spectrum of Pt-CUR in methanol.

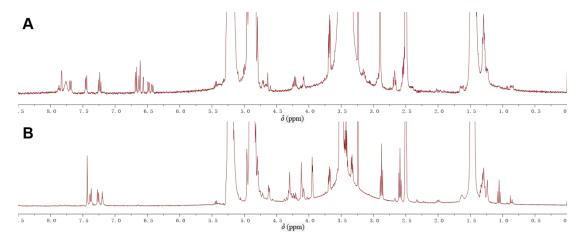


Figure S3 ¹H NMR spectra of PPP (A) and PSP copolymer (B) (solvent: dimethyl sulfoxide- d_6).

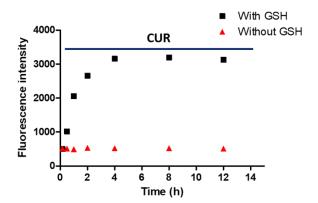


Figure S4 The fluorescence intensity of Pt–CUR incubated with or without 10 mmol/L GSH (black line represents the fluorescence intensity of free curcumin at equimolar amount).

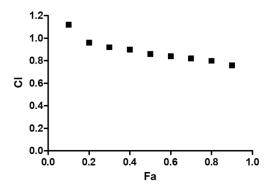


Figure S5 The corresponding CI *vs.* Fa plots of combination of CDDP and CUR on A549 cells.

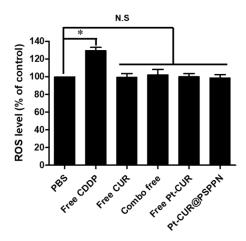


Figure S6 Intracellular ROS level of HEK-293 cells treated with free CDDP, free CUR, combo free, free Pt–CUR and Pt–CUR@PSPPN. Data are expressed as mean \pm SD (n=3). *P < 0.05, $^{**}P$ < 0.01.

Table S1 Physicochemical properties of Pt-CUR@PPPN and Pt-CUR@PSPN.

Sample	Particle size (nm)	Zeta potential (mV)	PDI	Encapsulation efficiency (%)
Pt-CUR@PPPN	150.24 ± 7.54	-19.2 ± 2.9	0.102 ± 0.004	91.0 ± 3.5
Pt-CUR@PSPN	149.63 ± 8.56	-21.3 ± 2.6	0.106 ± 0.013	88.6 ± 4.1