

Supporting Information

Targeted Hollow Pollen Silica Nanoparticles for Enhanced Intravesical Therapy of Bladder Cancer

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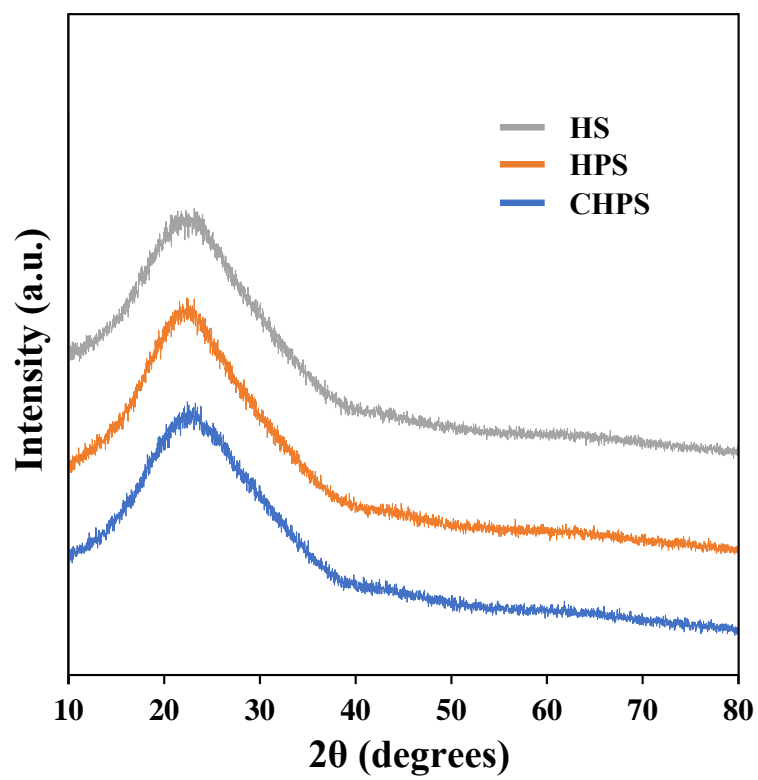


Fig. S1 XRD spectra of CHPS, HPS and HS NPs.

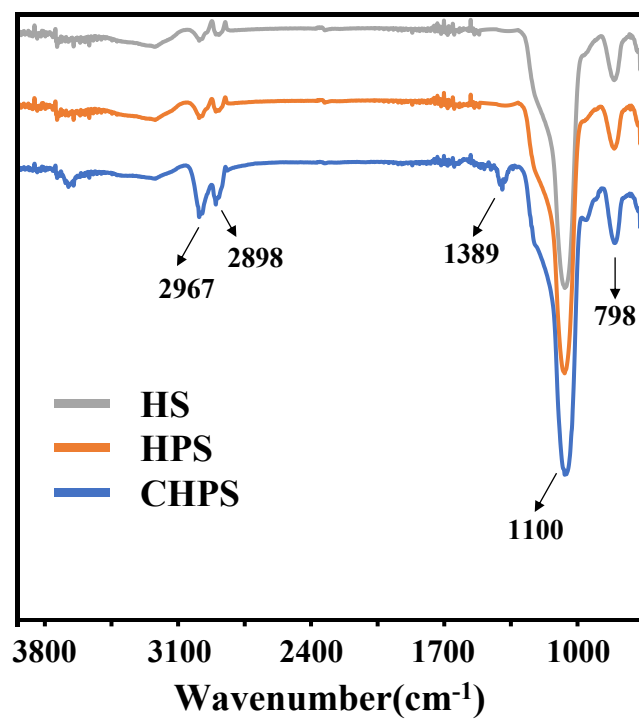


Fig. S2 FTIR spectra of CHPS, HPS and HS NPs.

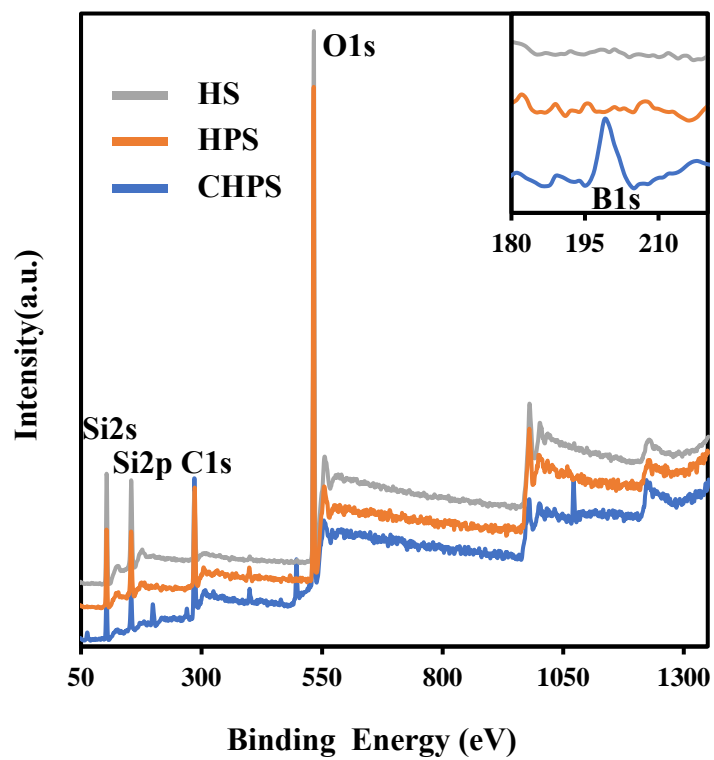


Fig. S3 XPS diagram of CHPS, HPS and HS NPs.

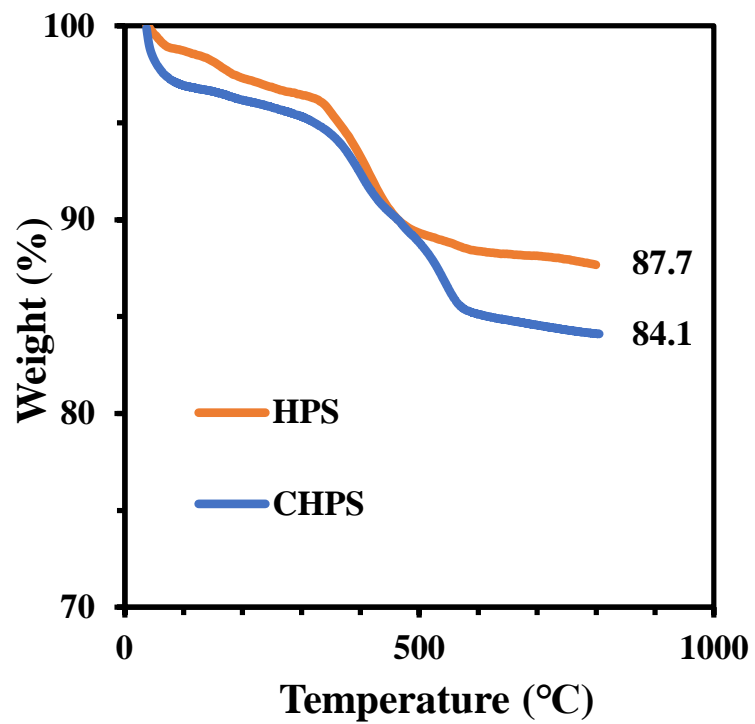


Fig. S4 Thermogravimetric analysis of CHPS and HPS NPs.

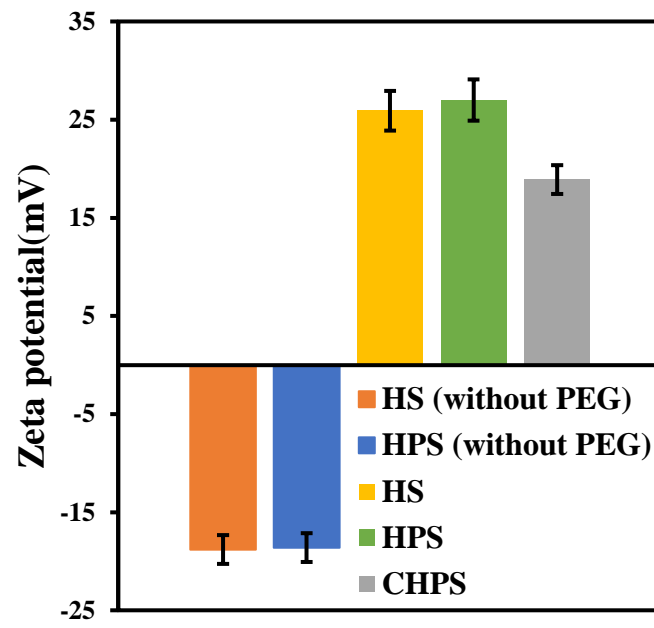


Fig. S5 Zeta potentials of HPS (without PEG), HS (without PEG), HPS, HS and CHPS NPs.

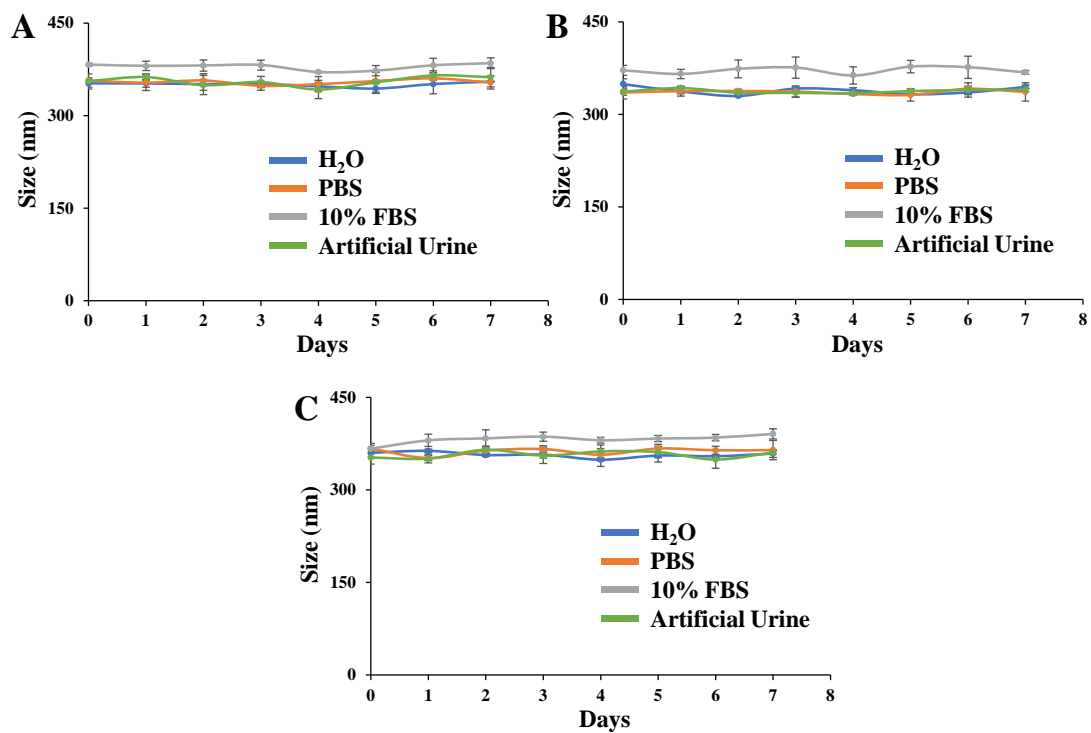


Fig. S6 Hydrodynamic sizes of CHPS (A), HPS (B) and HS (C) NPs in water, PBS, 10% FBS and artificial urine solution at 37 °C within 7 days.

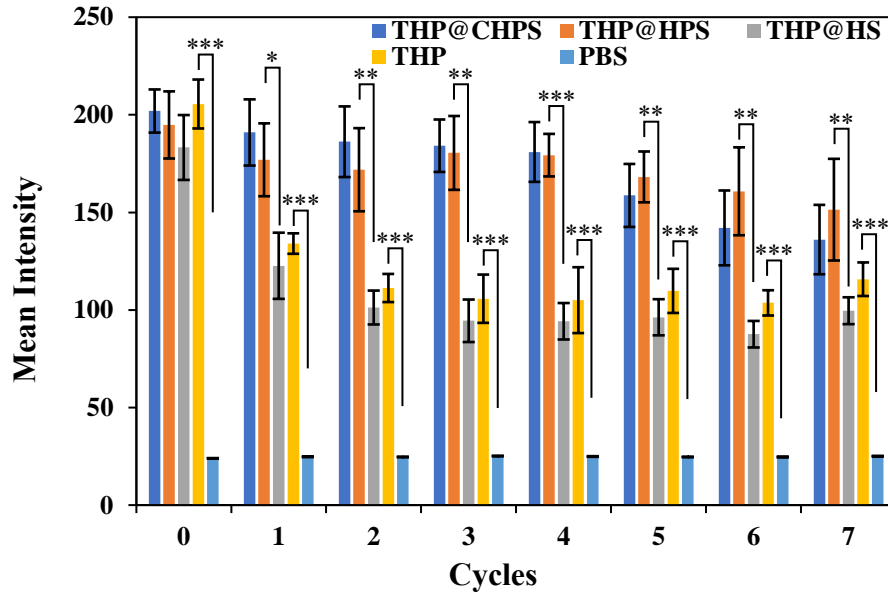


Fig. S7 Quantitative fluorescence intensity of skins as shown in Fig 3E.

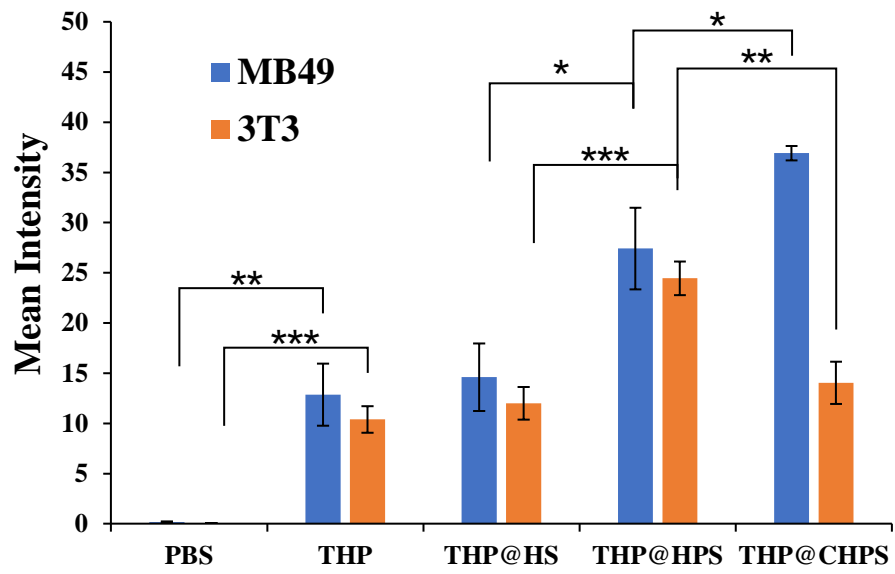


Figure S8. Quantitative fluorescence intensity of THP in cells as shown in Fig 4A.

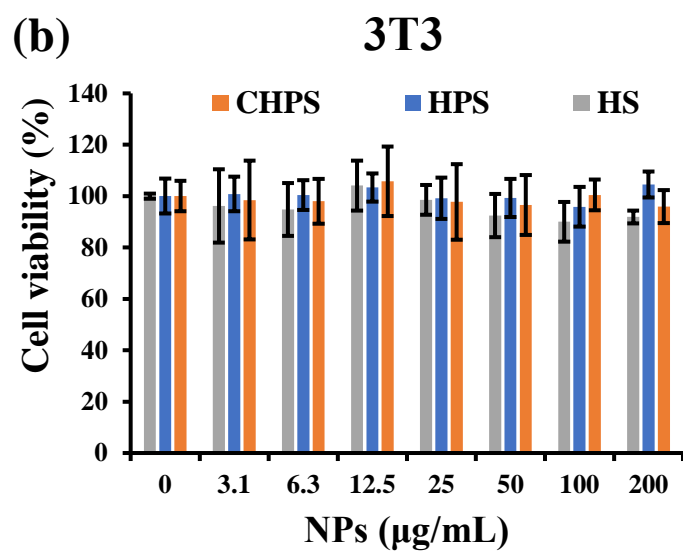
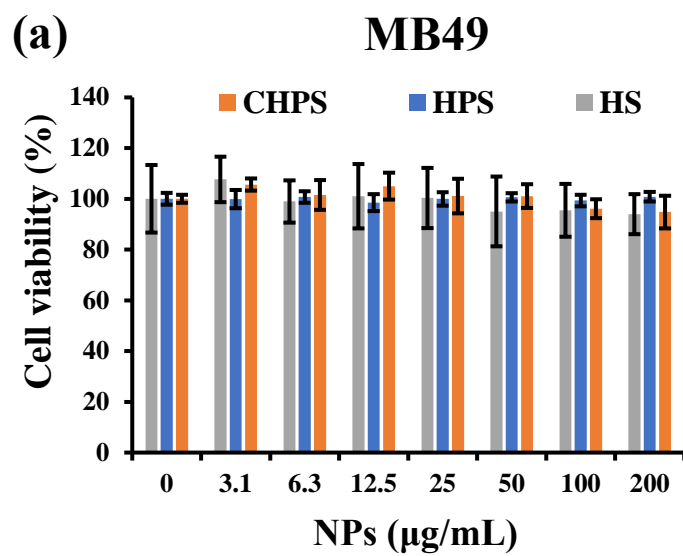


Fig. S9 Effects of CHPS, HPS and HS NPs on the viability of MB49 (a) and 3T3 (b) cells.

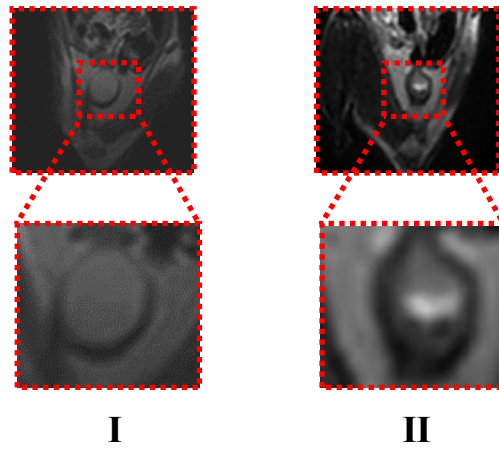


Fig. S10 MRI imaging before(I) and after(II) the construction of bladder cancer model.

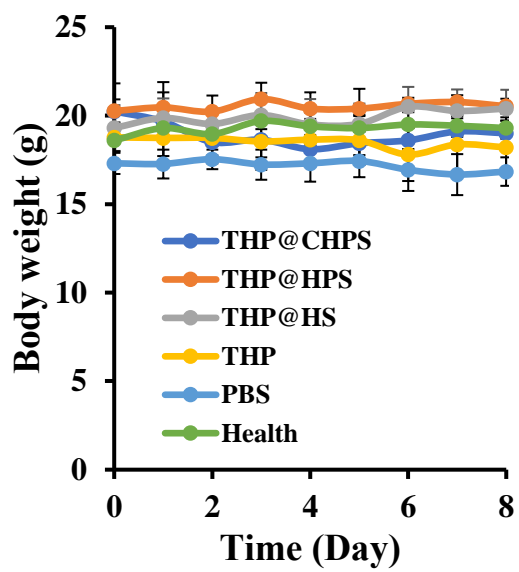


Fig. S11 Changes in body weight of mice during treatment.

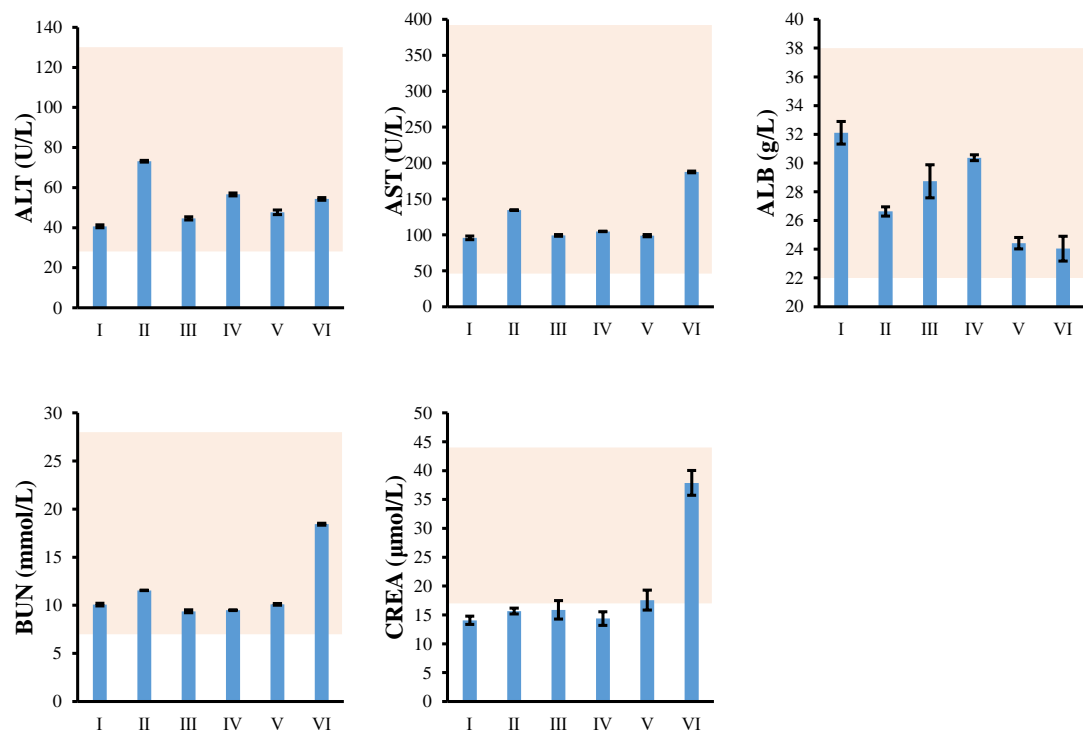


Fig. S12 Biochemistry parameters of mice treated different conditions and detected at the end of 8

days of treatment. (I: Health; II: THP@CHPS; III: THP@HPS; IV: THP@HS; V: THP; VI: PBS)

The range of parameters of normal mice were indicated with pink rectangle: alanine transaminase

(ALT): (28-130) U/L; aspartate transaminase (AST): (46-392) U/L; albumin (ALB): (22-38) g/L;

blood urea (BUN): (7.0-28) mmol/L; creatinine (CREA): (17-44) μmol/L.

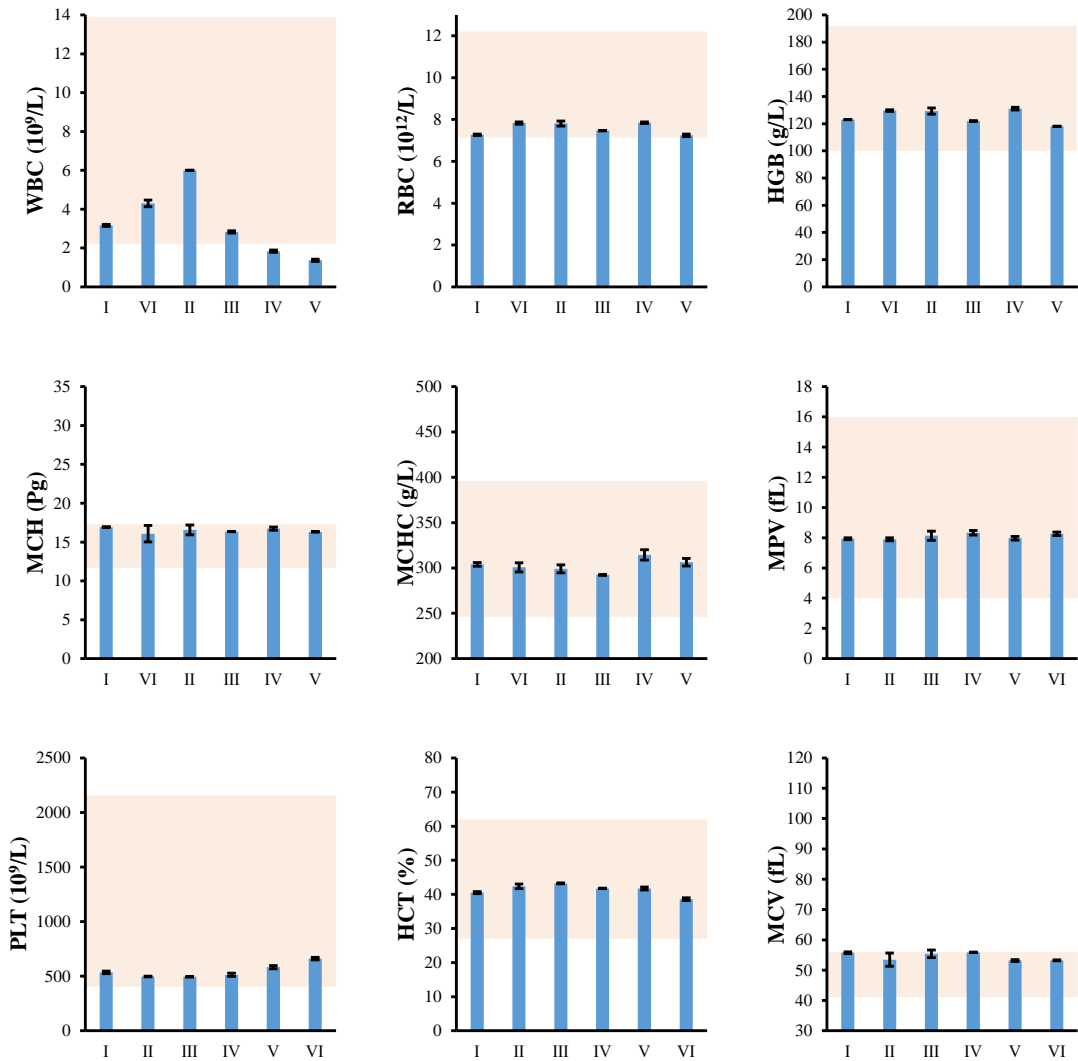


Fig. S13 Blood routine parameters of mice treated different conditions and detected at the end of 8 days of treatment. (I: Health; II: THP@CHPS; III: THP@HPS; IV: THP@HS; V: THP; VI: PBS) The ranges of parameters of normal mice were indicated with pink rectangle: white blood cell count (WBC): $(2.2-13.96) \times 10^9/L$; red blood cell count (RBC): $(7.14-12.2) \times 10^{12}/L$; hemoglobin(HGB): $(100-192) g/L$; mean cell hemoglobin (MCH): $(11.7-17.3) Pg$; mean cell hemoglobin concentration(MCHC): $(246-396) g/L$; mean platelet volume (MPV): $(4.0-16.0) fL$; platelet count (PLT): $(400-2159) \times 10^9/L$; hematocrit(HCT): $(27-62) \%$; mean cell volume (MCV): $(41-56) fL$.

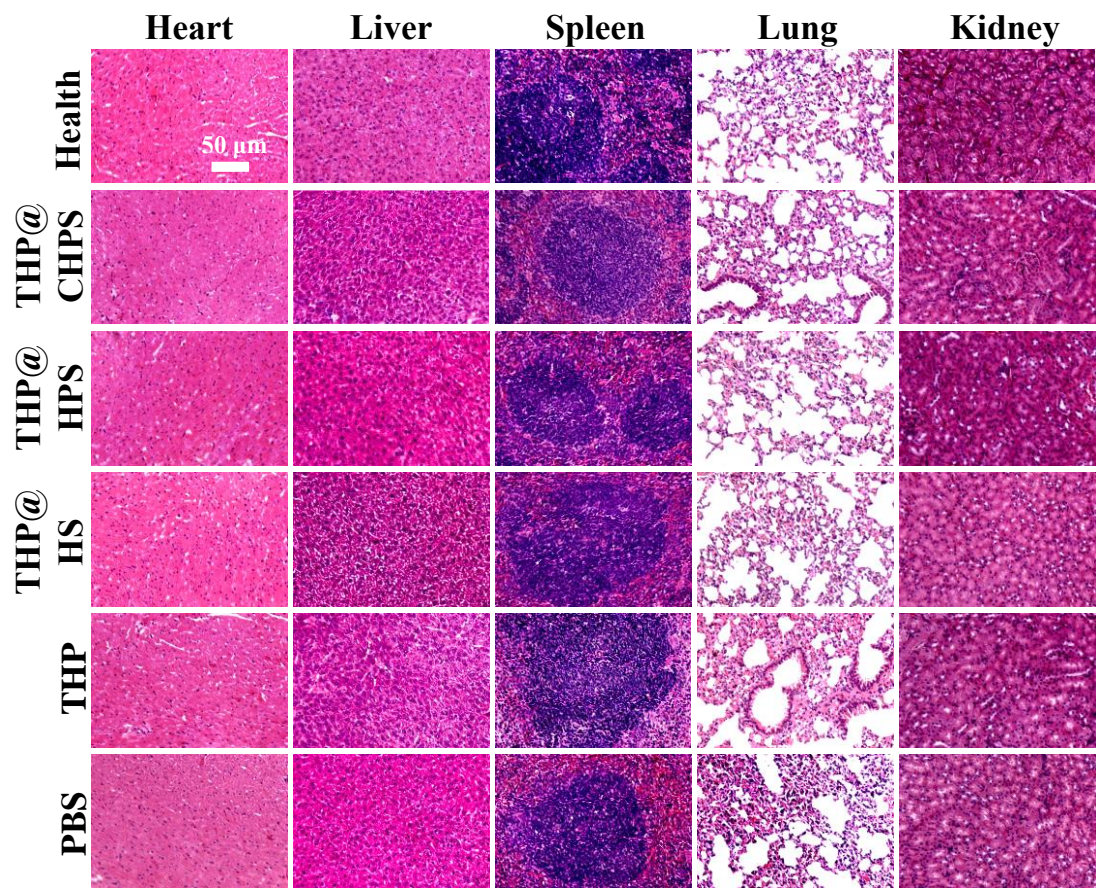


Fig. S14 H&E stained photos of each organ of mice after treatment.