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Supporting Information

Low dose paclitaxel via hyaluronan functionalized bovine serum albumin nanoparticulate assembly for metastatic melanoma treatment

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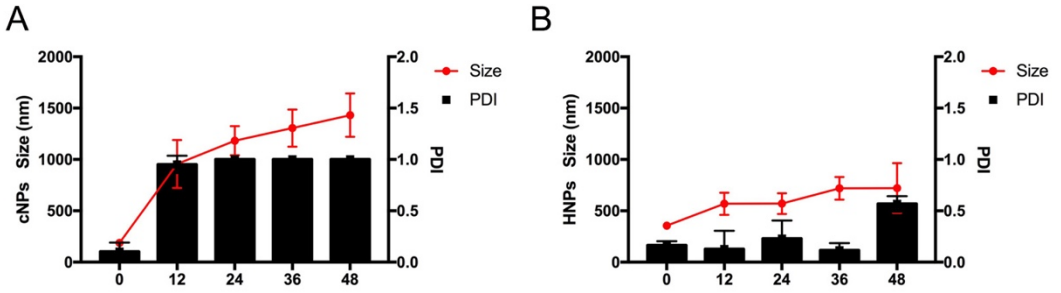

Fig. S1. Serum stability. (A) 10% FBS serum stability of cNPs. (B) 10% FBS serum stability of HNPs

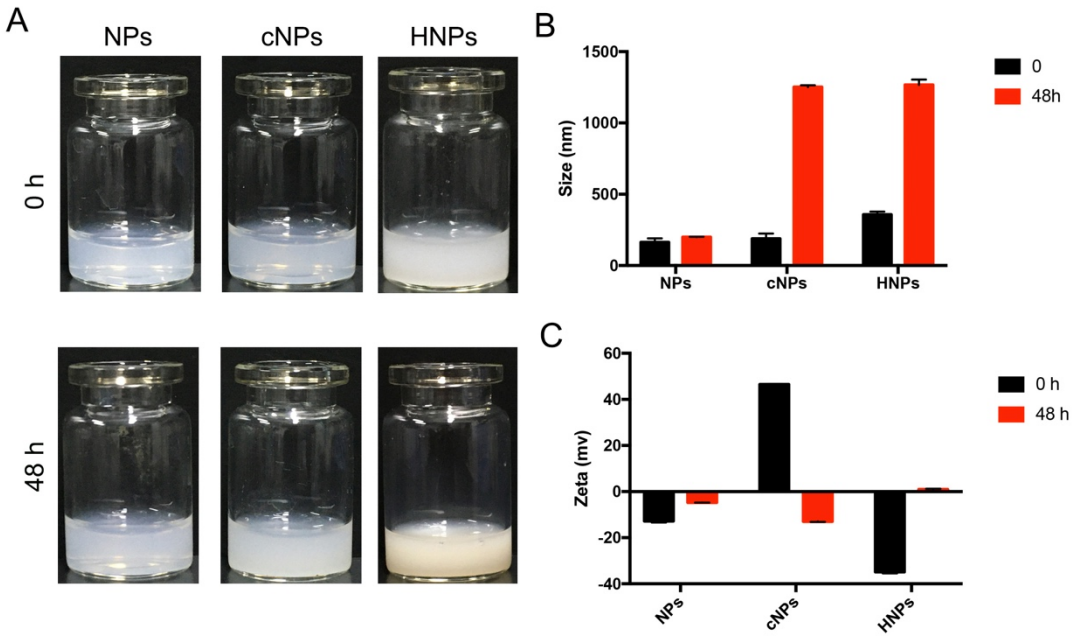

Fig. S2. Stability of nanoparticles in 1M sodium salicylate. (A) Photographs, (B) size and (C) zeta potential of NPs, cNPs and HNPs at 0 h and 48 h in 1M sodium salicylate dialysis media.

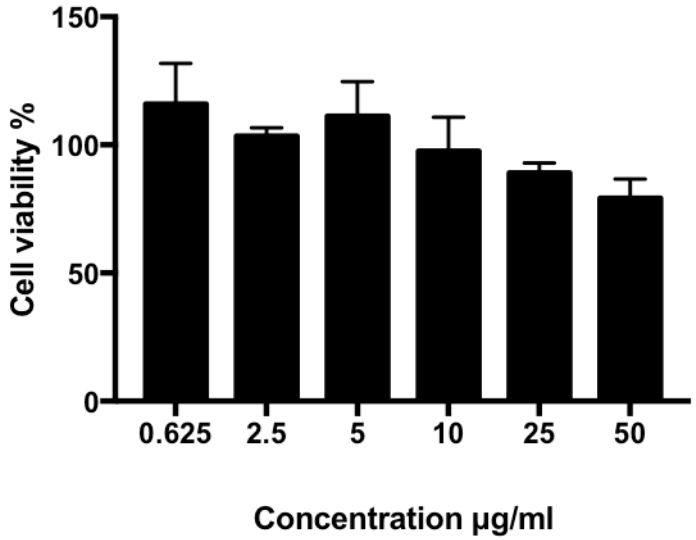

Fig. S3. MTT assay of blank-HNPs.

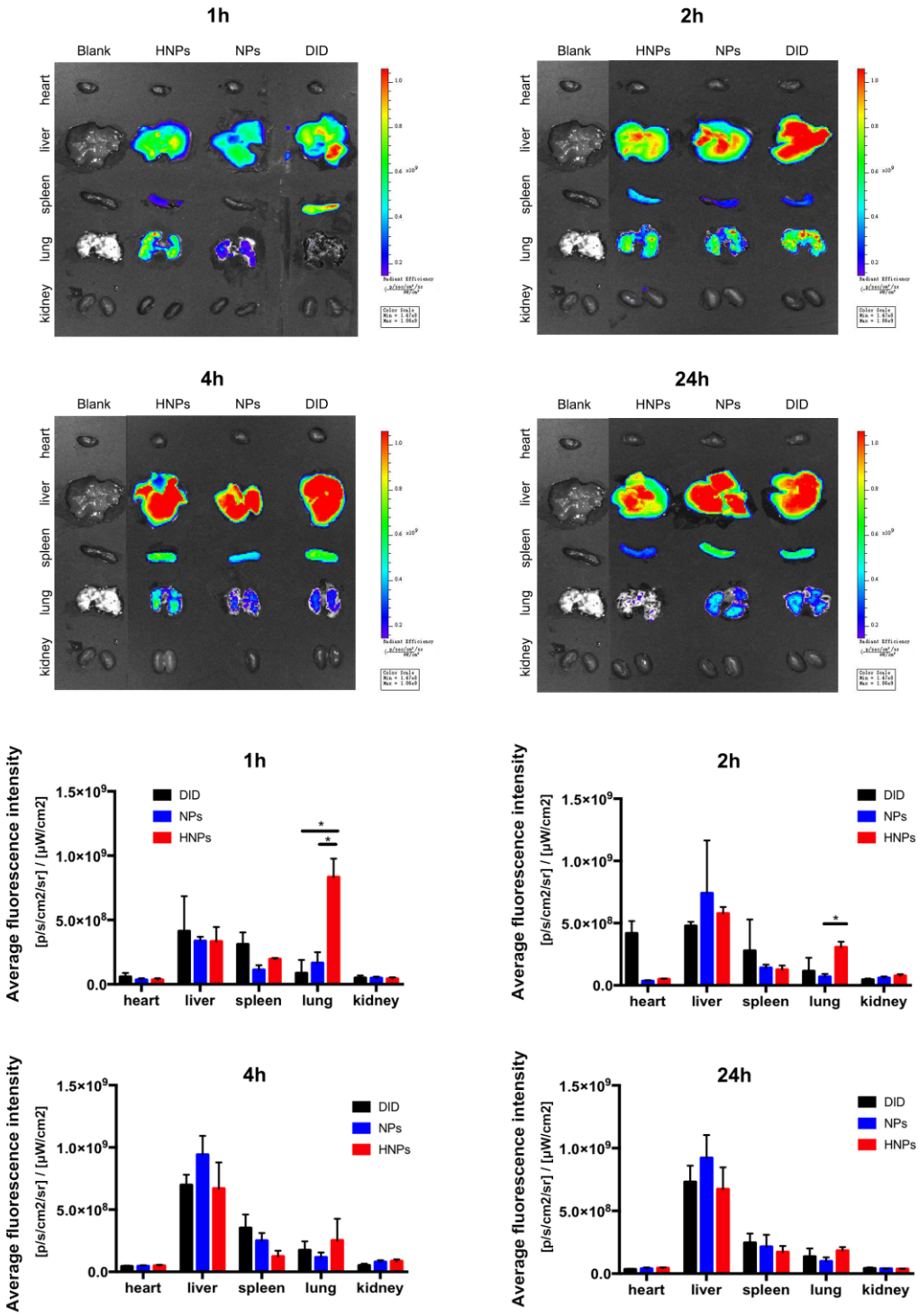

Fig. S4. In vivo distribution. (A) In vitro fluorescence intensity images of main organs of mice after intravenous injection of DID, NPs and HNPs for 1 h, 2 h, 4 h and 24 h. (B) Average fluorescence intensity of main organs after 1 hour of intravenous injection. Data represent mean ± SD (n = 3), * $P < 0.05$.

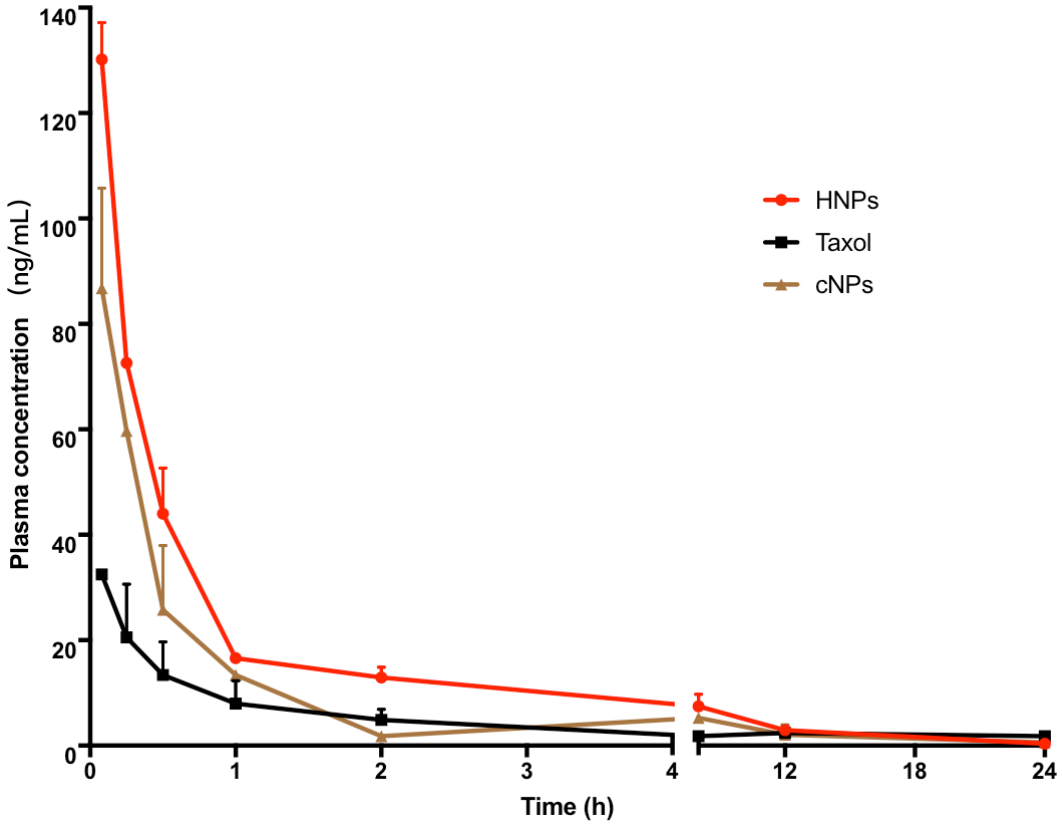

Fig. S5 Plasma concentration-time profiles of PTX following *i.v.* administration of Taxol, PTX-NPs and PTX-HNPs at an equivalent dose of 0.5mg/kg of PTX. Data represent mean ± SD (n = 5).

Table S1. Summary of pharmacokinetic parameters. Pharmacokinetics parameters were calculated for PTX after intravenous injection of Taxol, PTX-NPs and PTX-HNPs in C57BL/6 mice. Data represent mean ± SD (n = 5).

Parameters	Taxol	PTX-cNPs	PTX-HNPs
$AUC_{0\text{-}t}$ (μg/L*h)	64.70±0.36	109.33±12.95	173.12±0.97*&
CLz(L/h/kg)	5.51±0.51	3.21±0.03	2.85±0.015*
C_{max} (μg/L)	32.46±0.95	79.37±13.96	131.02±17.68*&
$t_{1/2z}$ (h)	7.57±0.96	5.77±1.54	4.69±0.57
Vz(L/kg)	94.94±36.54	29.36±4.75	17.23±0.39*&

*: $P < 0.05$ vs Taxol; &: $P < 0.05$ vs PTX-cNPs

Fig.S6. Photographs of spleen size in different treatment groups.

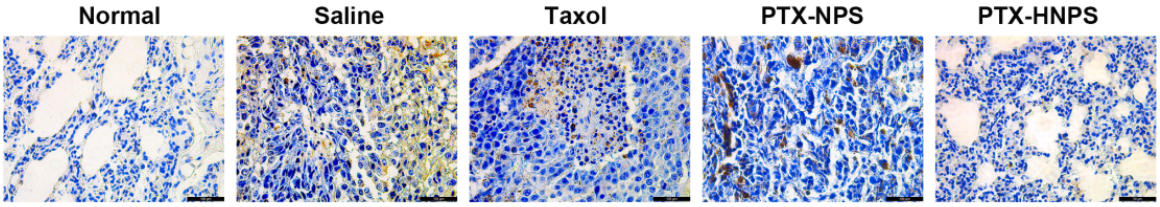

Fig. S7. TUNEL assay after treatment with Taxol, PTX-NPs and PTX-HNPs. Scale bar = 100 μm.