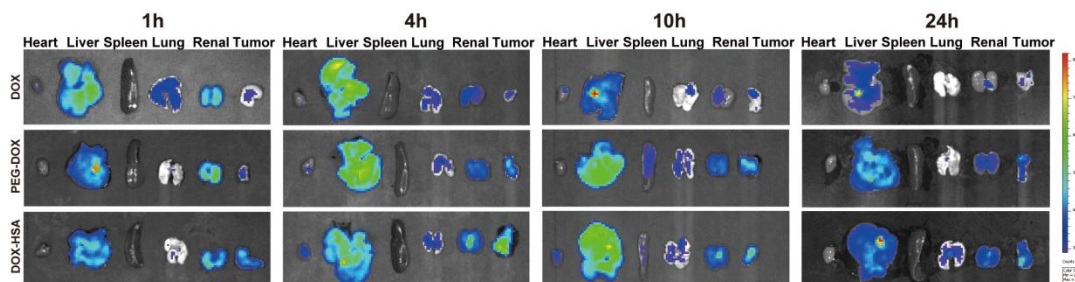
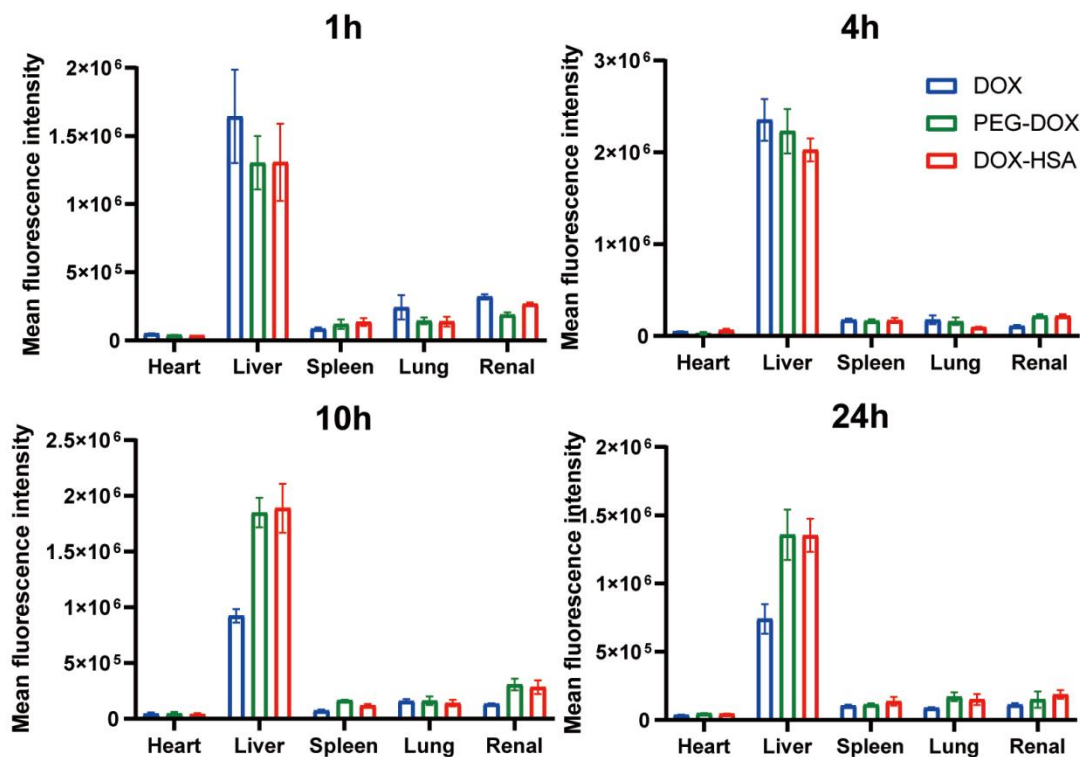


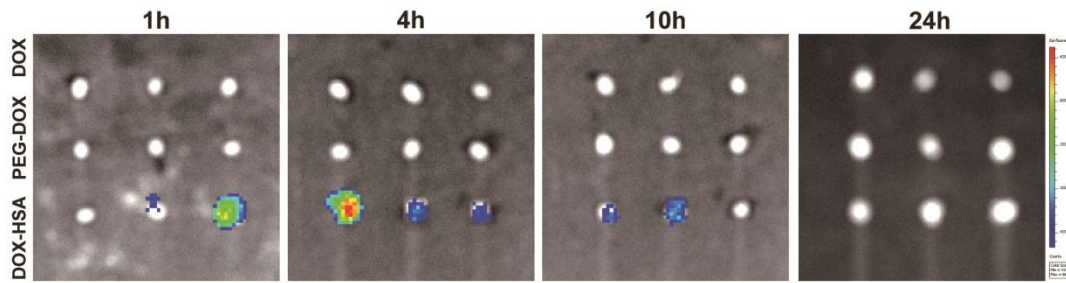
### Supporting Information



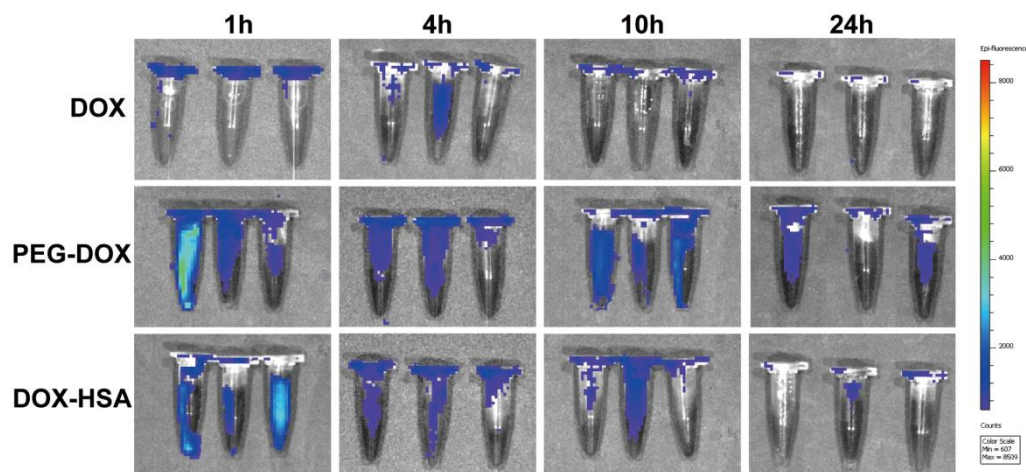
**Figure S1.** Images of fluorescence distributed in heart, liver, spleen, lung, kidney and tumor tissues at 1 h, 4 h, 10 h and 24 h of DOX, PEG-DOX and DOX-HSA. (n = 3).



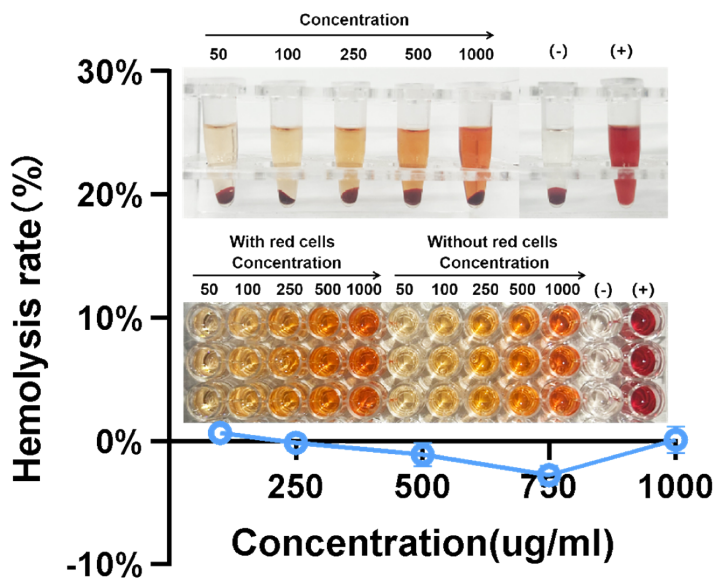
**Figure S2.** Semi-quantitative results of fluorescence intensity of heart, liver, spleen, lung and renal tissues at 1 h, 4 h, 10 h and 24 h. (n = 3).



**Figure S3.** Images of fluorescence distributed in axillary lymph nodes of DOX, PEG-DOX, and DOX-HSA. (n=3).



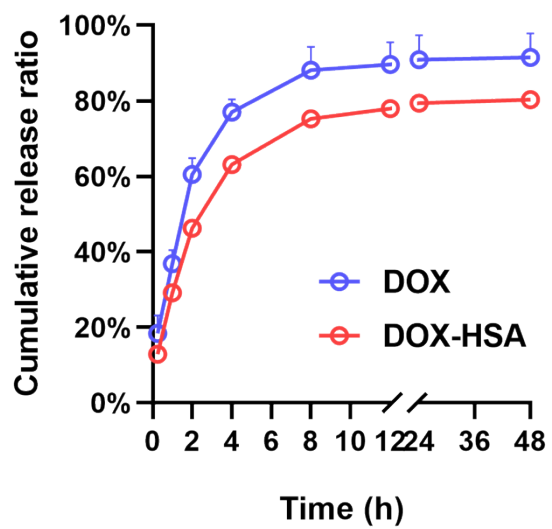
**Figure S4.** Images of fluorescence distributed in peripheral blood of DOX, PEG-DOX, and DOX-HSA. (n=3).



**Figure S5.** Results of the hemolysis test. Because doxorubicin itself has an orange-red appearance, which is close to the color of hemolytic red blood cells, the researchers used DOX-HSA solution without red blood cells as a control, so as to calculate the hemolysis test results.

pH	Binding Rate
pH 6.0-6.5	47.53 ± 4.85%
pH 7.0-7.2	84.69 ± 2.99%
pH 7.4-7.5	95.72 ± 1.22%
pH 7.8-8.0	88.73 ± 2.54%
pH 8.5-9.0	84.78 ± 1.32%

**Table S1.** The binding rate change of DOX-HSA at different pH.



**Figure S6.** Results of the drug release studied in saline.