

Supporting information

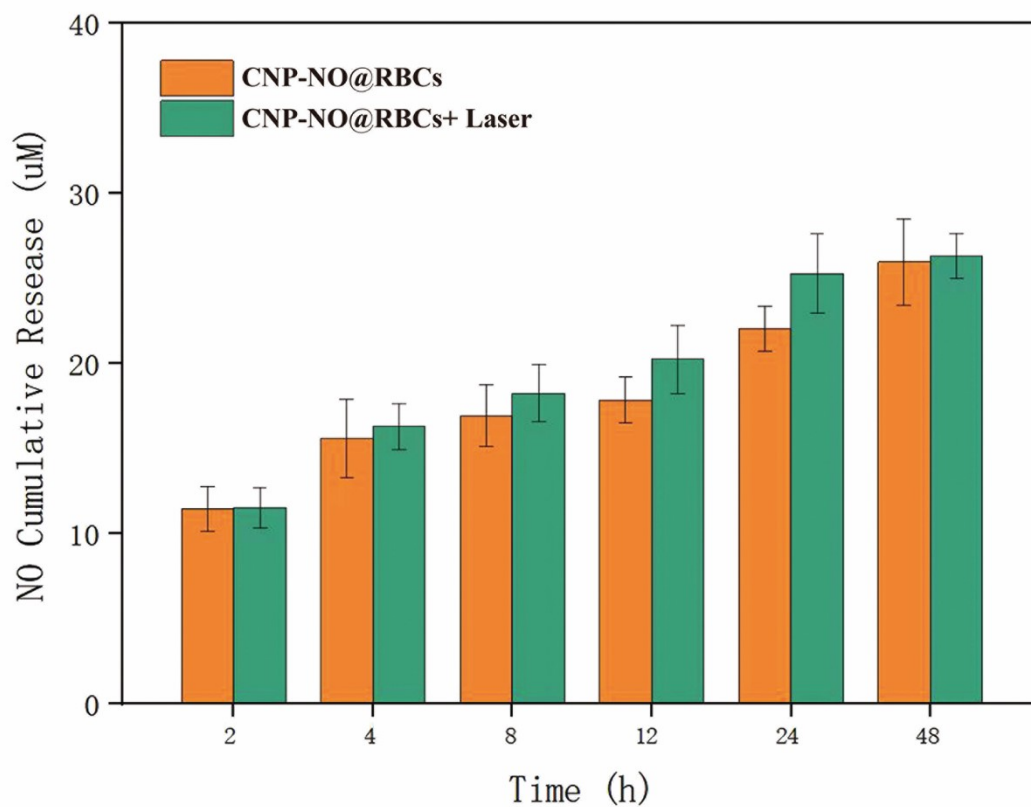
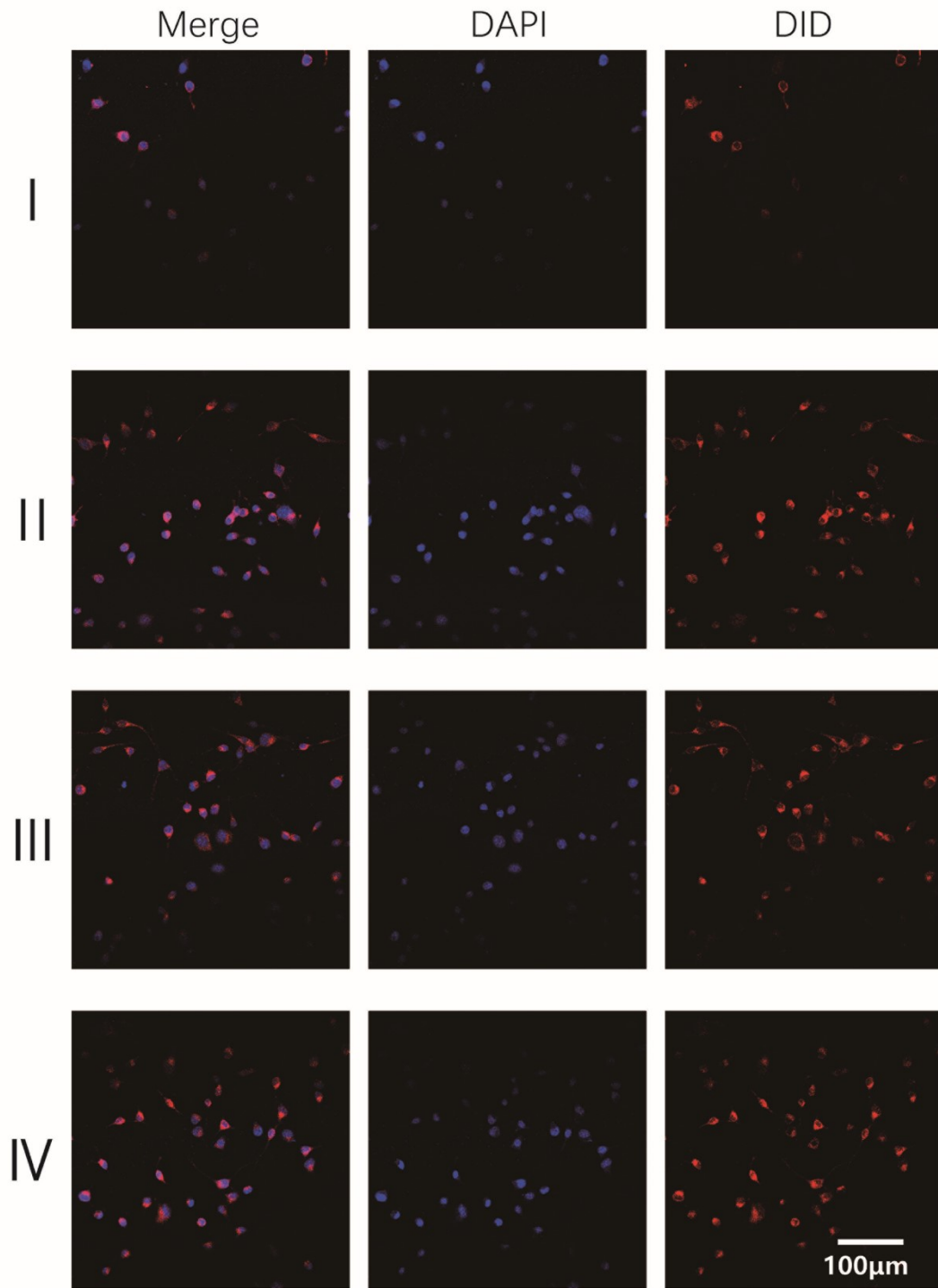
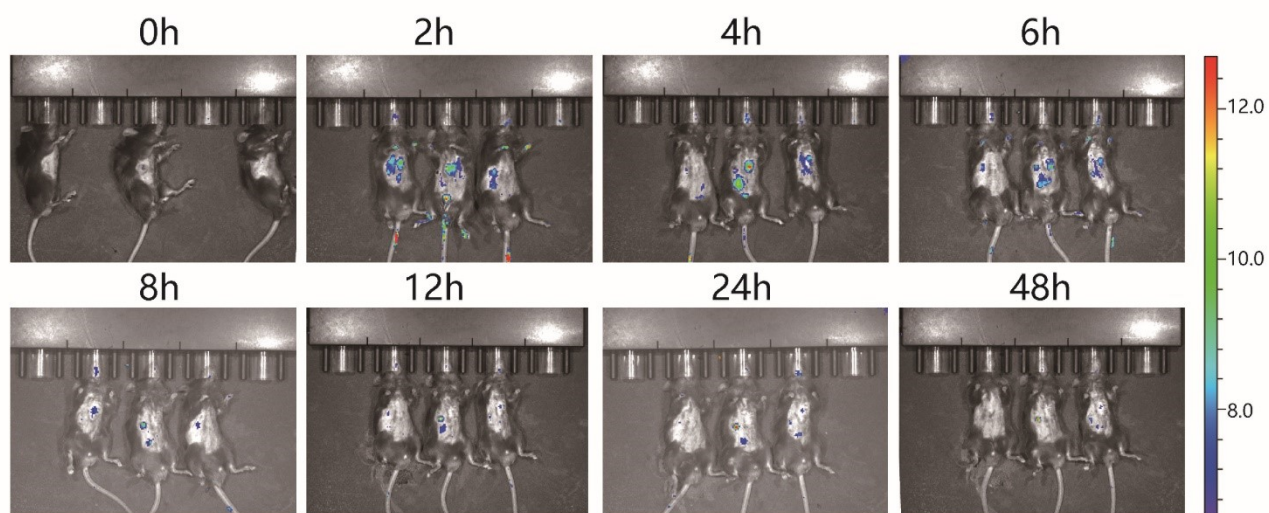


Figure S1. *In vitro* release of NO. Cumulative release of NO in 48 hours from CNP-NO with or without laser varies with time.



**Figure S2.** *In vitro* cellular uptake of CNP-NO@RBCs by CT26 cells. CLSM images of CT26 cells incubated with DID-labeled CNP-NO@RBCs at 37 degrees centigrade for different times (I) 1 hour, (II) 2 hours, (III) 4 hours, (IV) 6 hours). The fluorescence of DID-labeled CNP-NO@RBCs is red and the fluorescence of DAPI is blue.

---



**Figure S3.** In vivo fluorescence imaging of mice 48 hours after intravenous injection of CNP-NO@RBCs to assess retention time.

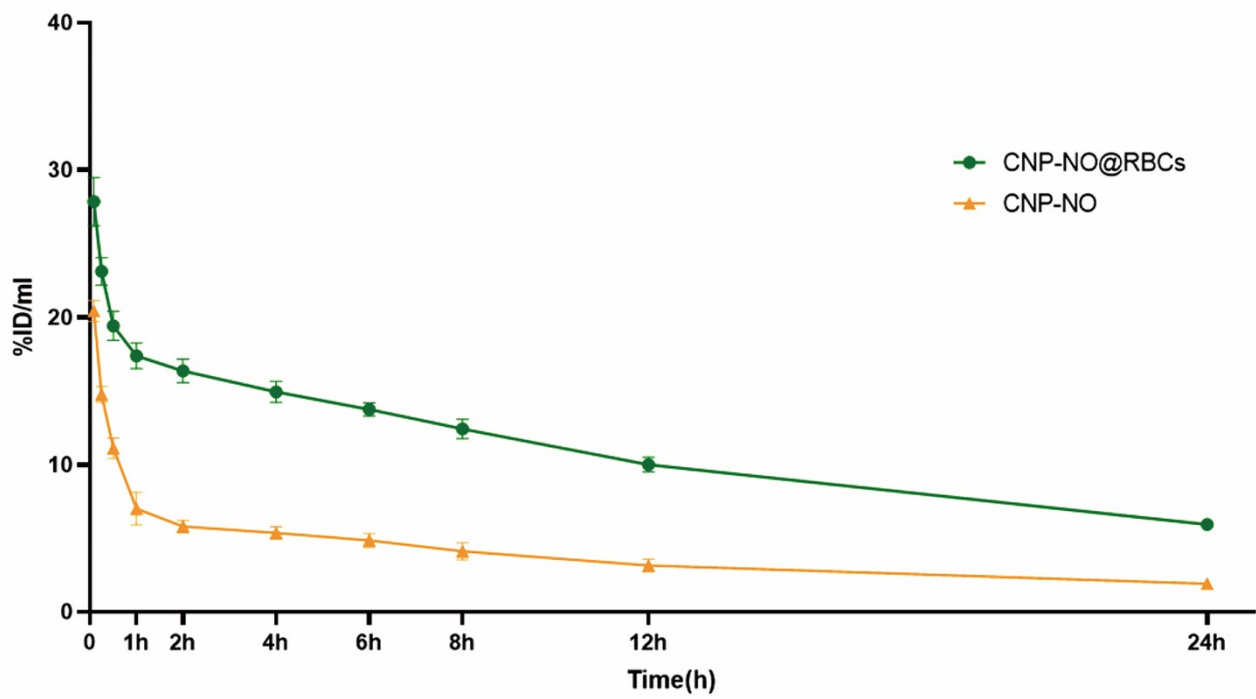
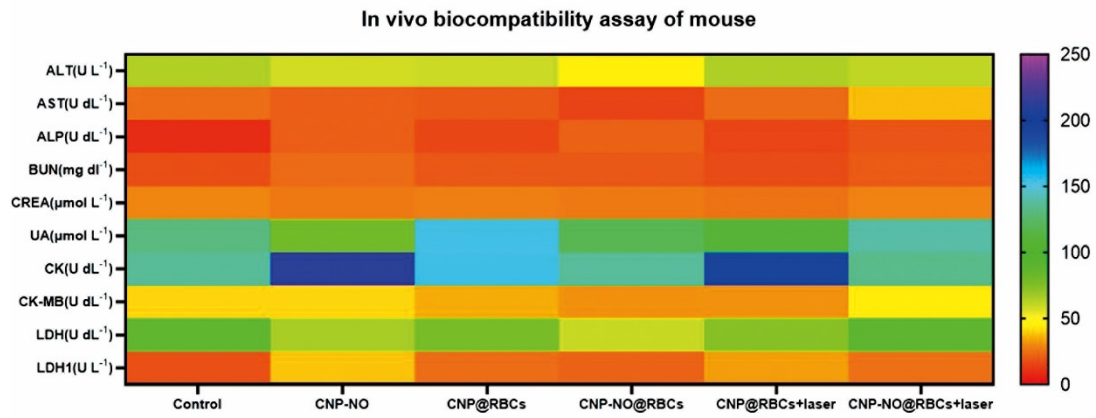


Figure S4. *In vivo* pharmacokinetic curves during 24 h after intravenously injected with CNP-NO@RBCs or CNP-NO.



**Figure S5. In vivo biocompatibility assay of mouse.** Blood biochemical assay monitoring subject to PBS group, CNP group, CNP@RBCs group, CNP-NO@RBCs group, CNP@RBCs+Laser group and CNP-NO@RBCs+Laser group intravenous injection (CNP [CNP] = 17.5 mg kg<sup>-1</sup>, Laser (1064 nm, 1 W cm<sup>-2</sup>)) during half-month biosafety evaluation (n = 3).