Supplementary information for

## Long-circulating nanoparticles as the passive targeting nanocarriers

## for the treatment of thrombus

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**Figure S1.** The conjugation cRGD concentration in the SCLMs was measured by the BCA protein assay. The purified cRGD standard curve determined from the corresponding absorbance versus cRGD concentration.



Figure S2. Zeta-potential values of the SCLMs, Mal-SCLMs and cRGD-SCLMs. Error bars indicate SD (n = 3).



**Figure S3.** The in vitro stability of SCLMs and cRGD-SCLMs in the PBS solution with 10% fetal bovine serum (FBS) during 7 days determined by DLS method.



**Figure S4.** Cell viabilities of HUVEC after co-incubation with different concentrations of SCLMs or cRGD-SCLMs.



**Figure S5.** (a) Representative ex vivo imaging of Cy5.5-labeled cRGD-SCLMs/SCLMs in the lung of PE mice 6 h, 12 h and 24 h after injection with the formulation. (b) Quantification of the Cy5.5 fluorescence in the lung. The data presented are means  $\pm$  SEM (n = 4).



**Figure S6. Characterizations of AuNPs and PEG-AuNPs, and the in vivo micro-CT images of Au-PEG.** (a) TEM images of AuNPs and PEG-AuNPs. Scale bar, 50 nm. (b) Size distribution of AuNPs and PEG-AuNPs measured by DLS. (c) Representative axial sections micro-CT images of mice 2 h after the Au-PEG was injected into the mice.



**Figure S7.** (a) The morphology of the lung of the healthy mice and PE mice received different kinds of treatment. (b) H&E staining of the lung sections from the healthy mice and PE mice. Scale bar:  $100 \mu m$ .



**Figure S8.** Representative sagittal sections micro-CT images of mice 24 h after administered the indicated treatments.



Figure S9. The raw data for the western blots of Bcl-2, Bax and cleaved caspase-3.



Figure S10. Bleeding time assay. At 24 h post-injection of the indicated formulation, a small cut was made on the tail mice, and the time was recorded until the bleeding stopped. Data are shown as mean  $\pm$  s.d. (n = 3). P > 0.05 (no significance, n.s.), \*\*\* P < 0.001. Statistical significance was calculated via one-way ANOVA.



Figure S11. H&E staining of the major organs of healthy mice 24 h after the injection of T@ cRGD-SCLMs or T@SCLMs. Scale bar:  $100 \ \mu m$ .



Figure S12. H&E staining of lung sections from PE mice 24 h after the injection of Cy5.5-labeled cRGD-SCLMs or SCLMs. Scale bar:  $100 \ \mu m$ .