## **Electronic Supplementary Information**

## Conjugated polymer nanoparticles for photoacoustic vascular imaging

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**Scheme S1** Experimental setup of the PAM system. The pulled tubing was filling with the venous samples in the focusing depth. The laser was pulsed with a pulse repetition rate of 10 Hz and coupled by a lens to an optical fiber to illuminate samples. PA waves were detected with a 50-MHz transducer and then through the A/D card to the PC for further data analysis.



Fig. S1 FE-TEM (left) and laser light scattering (LLS, right) distribution of PFTTQ NPs.



Fig. S2 UV-vis absorption spectrum of Au NRs.



**Fig. S3** Metabolic viability of NIH/3T3 fibroblast cells after incubation with PFTTQ NP suspensions at various NP concentrations for 24 h.



Fig. S4 PA rat cortical vasculature C-scan images excited at (A) 532 nm and (B) 800 nm.