

Supporting Information

Neoadjuvant Nano-photothermal Therapy Used Before Operation
Effectively Assists Surgery for Breast Cancer

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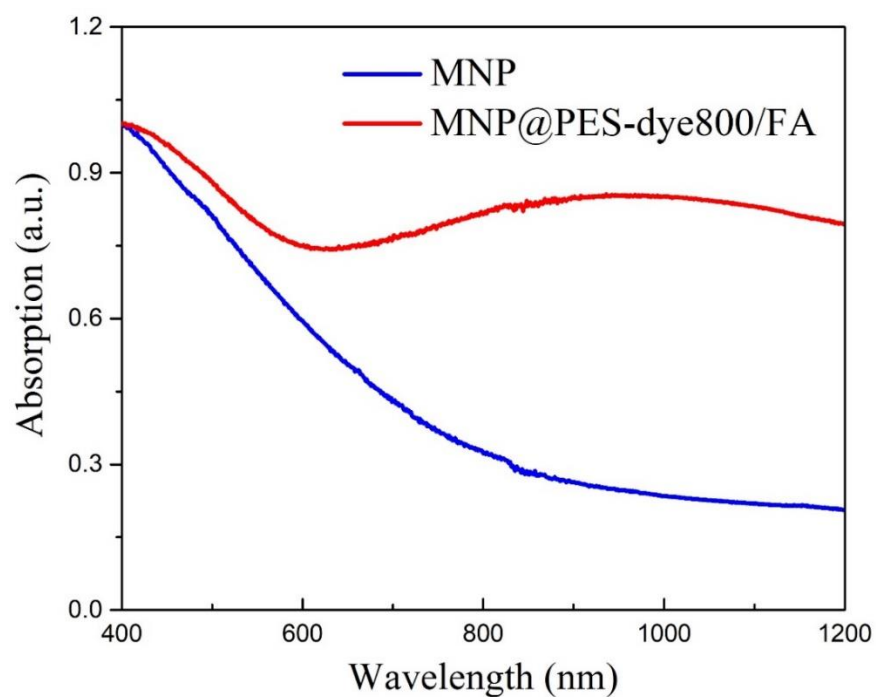


Fig. S1 UV-Vis-NIR spectrum of two nanoparticles.

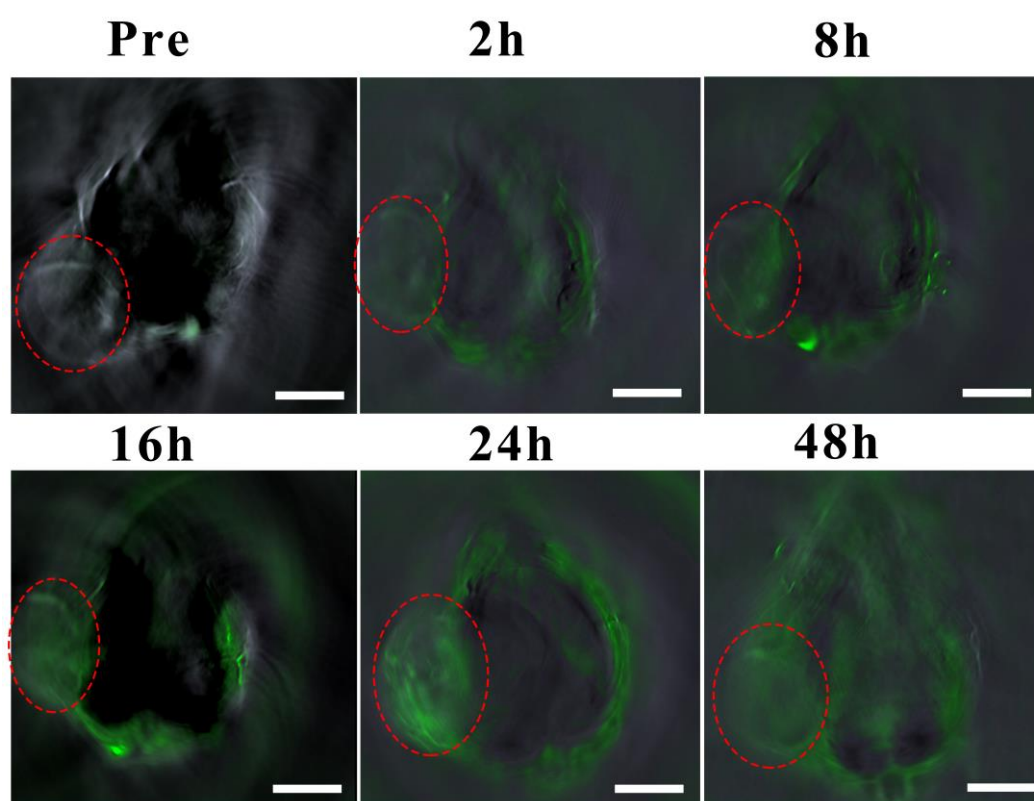


Fig. S2 PA 2D images of the NPs-injected mice. The bright part is the blood vessels in the tumor site owing to hemoglobin. The green area (down) corresponds to the distribution of nanoprobe, the scale bar is 5 mm.

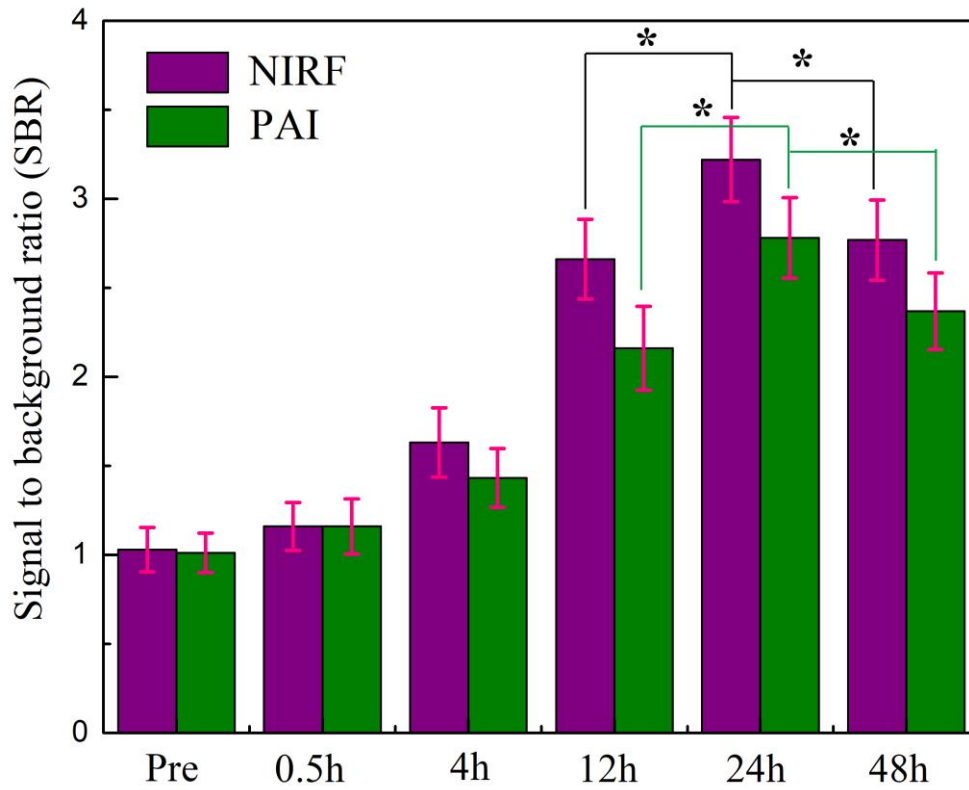


Fig. S3 Signal to background ratio (SBR) analysis of fluorescence intensity and PAI intensity at different time points. Data were presented as mean value \pm SD ($n = 4$); * $p < 0.05$.

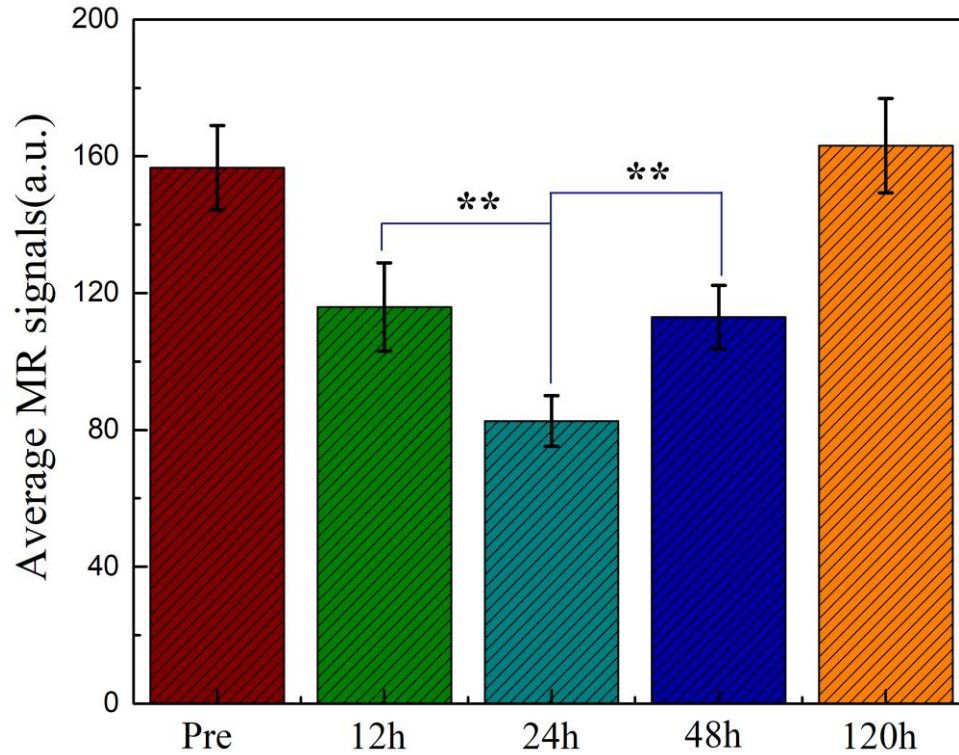


Fig. S4 MRI intensity at different time points after injection. Data were presented as mean value \pm SD ($n = 4$); ** $p < 0.01$.

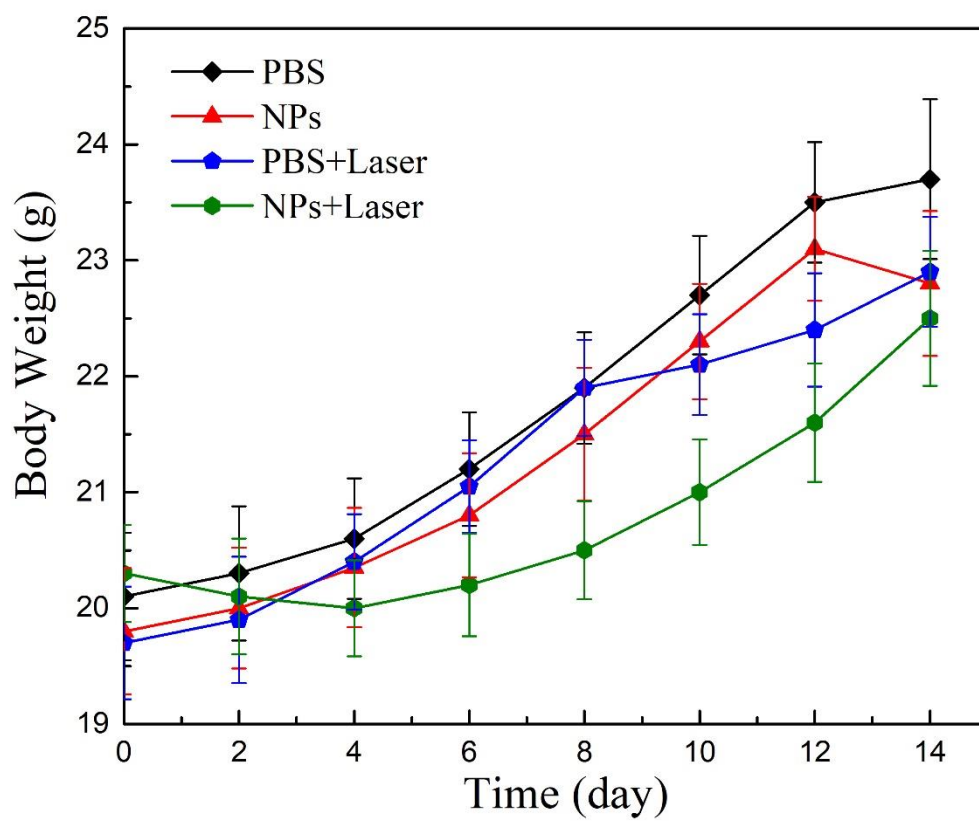
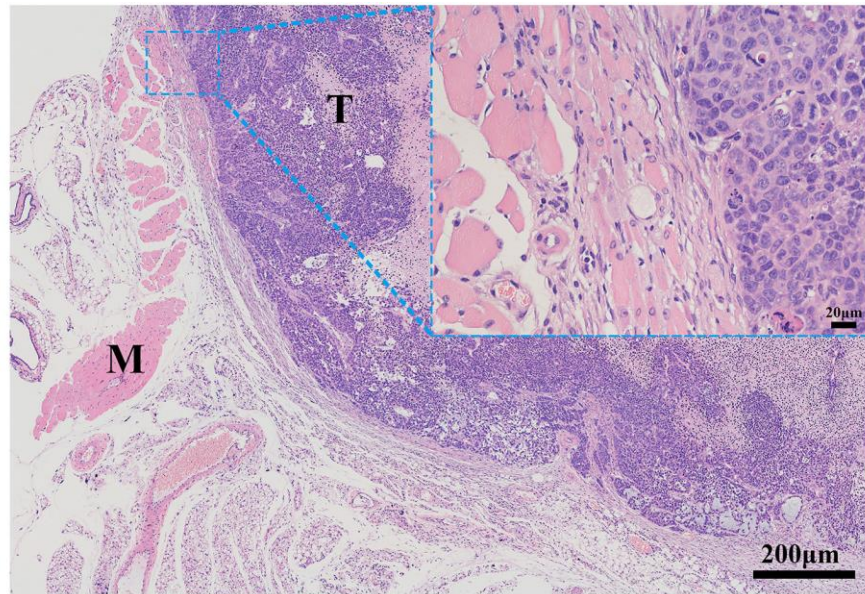


Fig. S5 Body weights of mice in different groups after various treatments.

Before NPTT



After NPTT

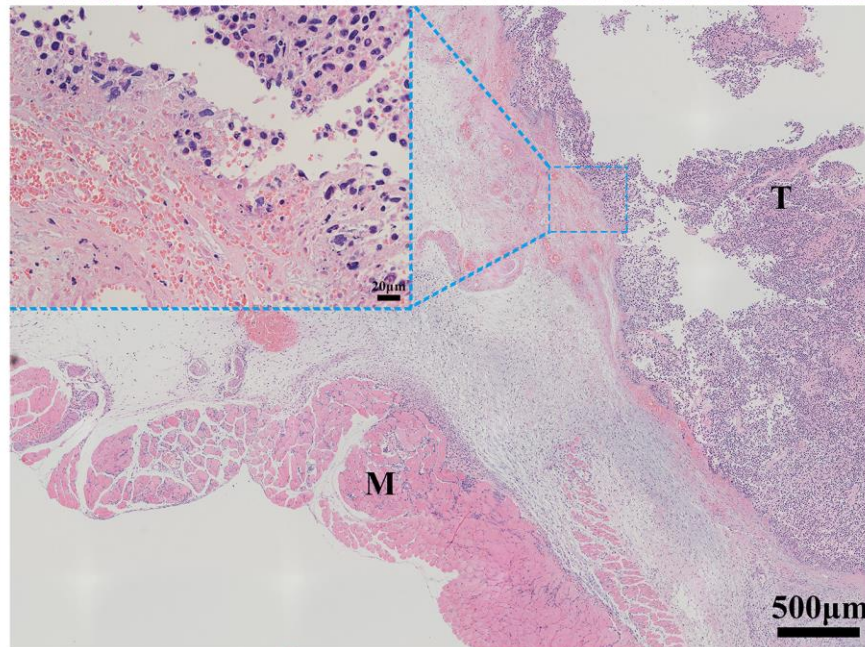


Fig. S6 H&E-stained images of tumor before NPTT and after NPTT. Before NPTT, a local magnification view inserted at the upper right corner, tumor cells largely invade into normal tissue that makes surgery difficult. After NPTT, a local magnification view inserted at the upper left corner, tumor cells that once invaded into normal tissue became round, atrophic and apoptosis, and the boundaries between tumor and normal tissue become clearer.

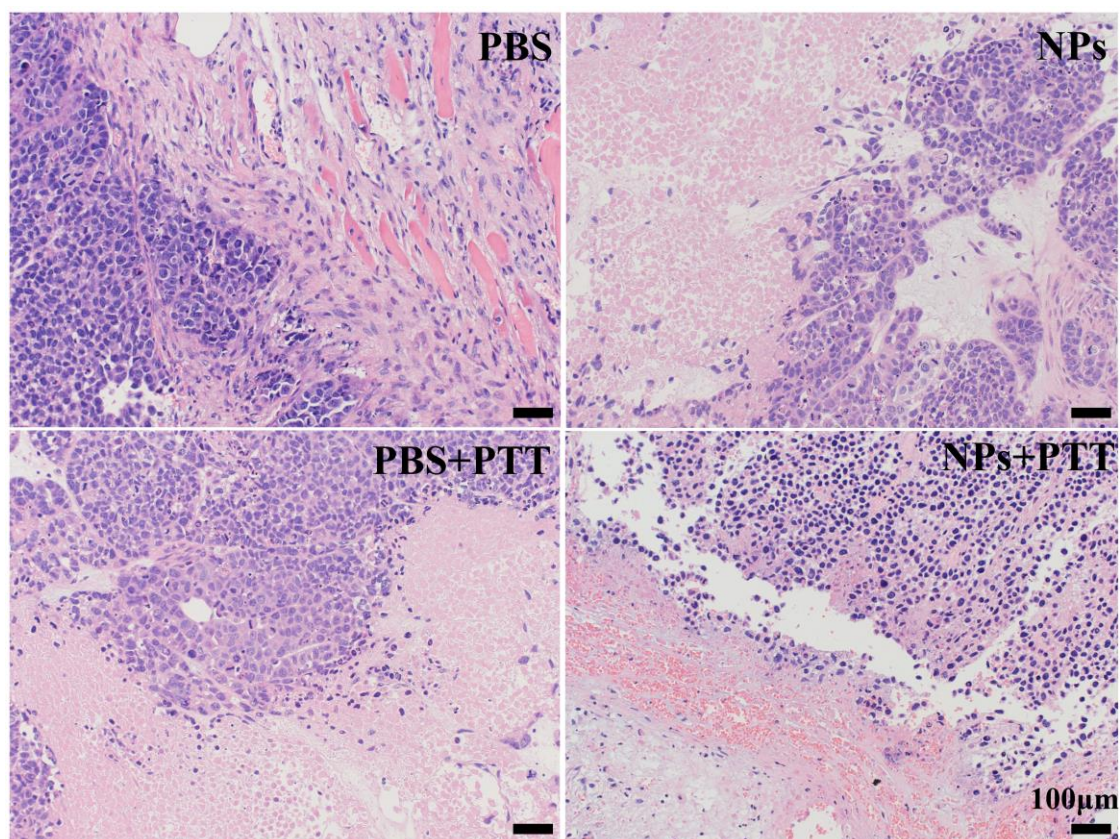


Fig. S7 H&E-stained images of tumors collected from four different groups, the boundary between tumor and normal tissue was much clearer, bars represent 100 μm .

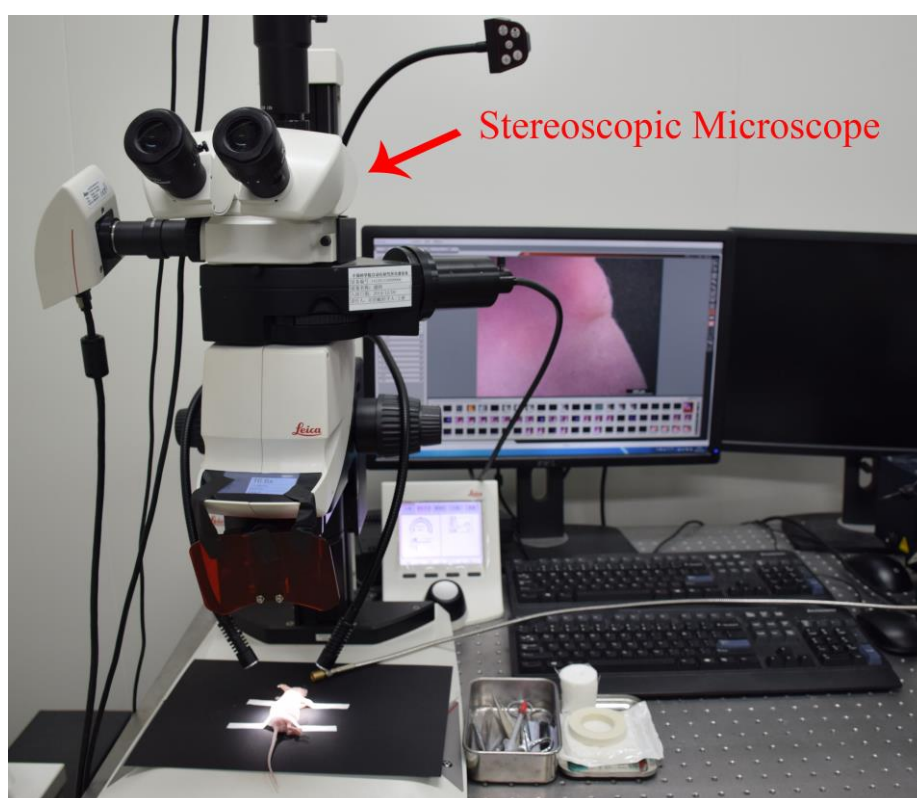


Fig. S8 Operation picture of surgical resection of tumor by stereoscopic microscope.