

Electronic Supporting Information

**Ag-hybridized plasmonic Au-triangular nanoplates: highly sensitive
photoacoustic/Raman evaluation and improved antibacterial/photothermal
combination therapy**

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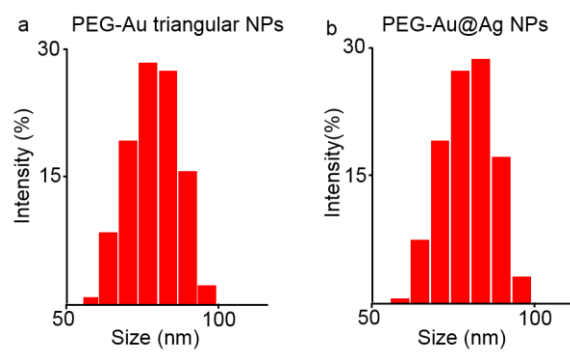


Fig. S1. Size distribution of (a) PEG-Au triangular NPs and (b) PEG-Au@Ag NPs.

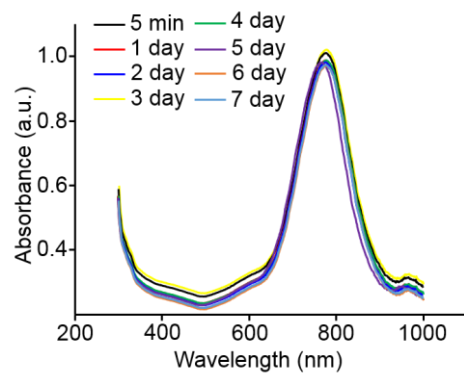


Fig. S2. Stability of PEG-Au@Ag NPs exposed in the air up to 7 days.

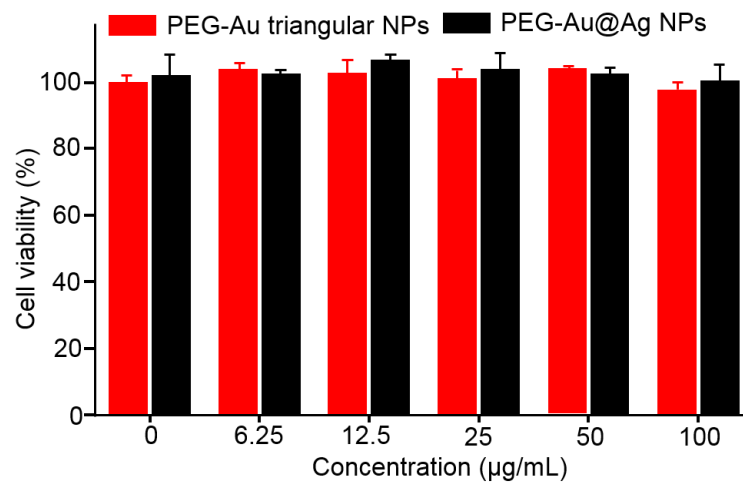


Fig. S3. Cell viability of MGC 803 cells co-cultured with PEG-Au triangular NPs and PEG-Au@Ag NPs at different concentrations for 24 h.

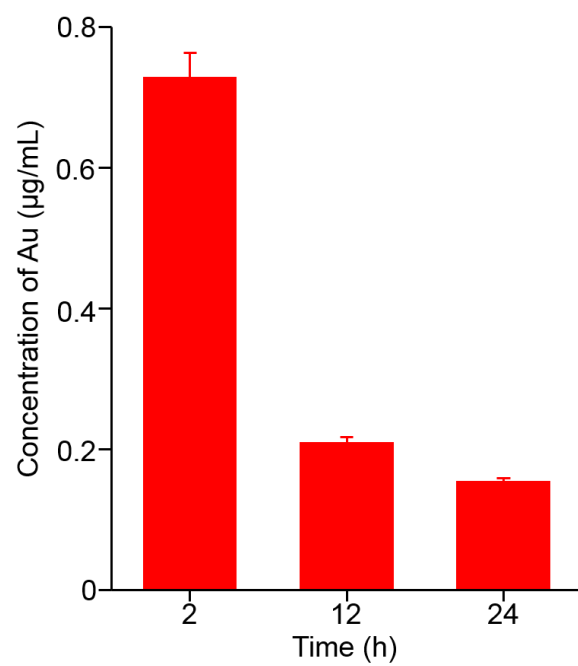


Fig. S4. Blood clearance of Au post-injection for 2 h, 12 h, and 24 h (n=7).

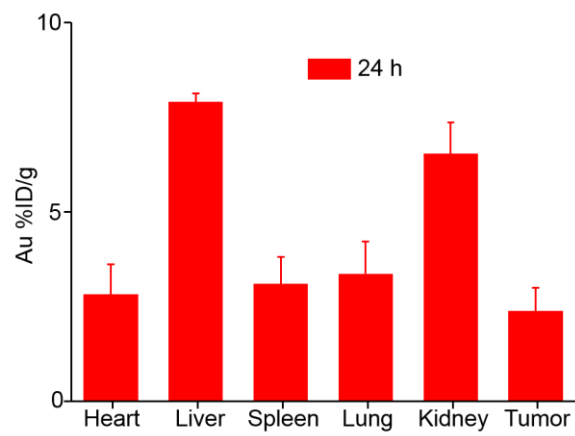


Fig. S5. Pharmacokinetics of PEG-Au@Ag NPs from inductively coupled plasma mass spectrometry (ICP-MS) post-injection for 24 h (200 μ L, 1 mg/kg) (n = 7).

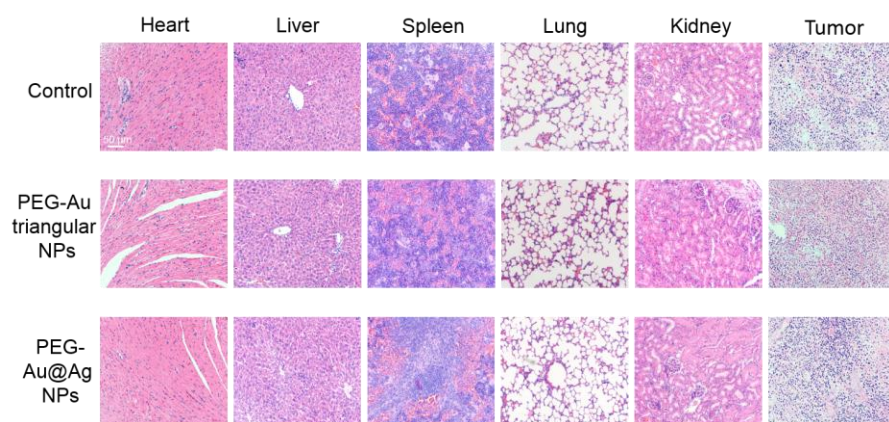


Fig. S6. H&E stained images of heart, liver, spleen, lung, kidney, and tumor through dissecting the mice in 7 day after i.v. injection of PBS, PEG-Au triangular NPs, and PEG-Au@Ag NPs (200 μ L, 1 mg/kg). The scale bar is 50 μ m.

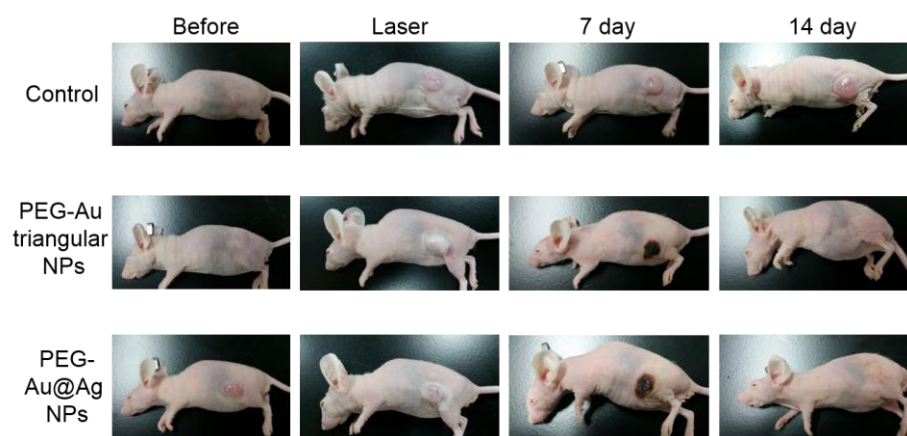


Fig. S7. Tumor changes of MGC 803 tumor-bearing mice injected with PBS, PEG-Au triangular NPs, and PEG-Au@Ag NPs (200 μ L, 1 mg/kg) and followed by 808 nm laser irradiation (1 W/cm², 5 min).

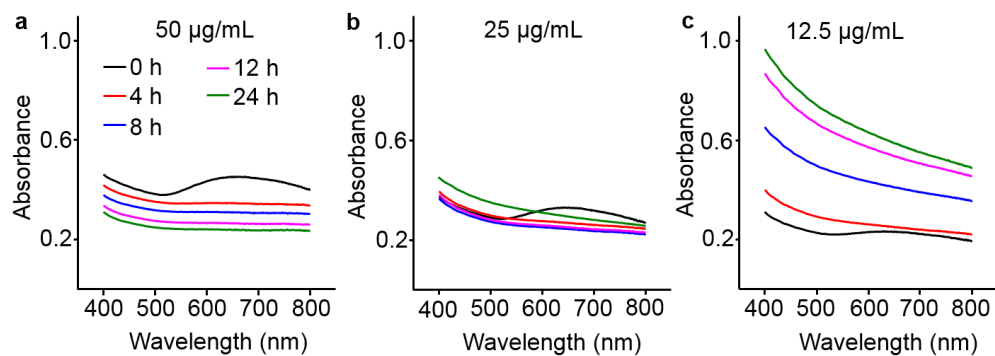


Fig. S8. Typical UV-vis spectra of PEG-Au triangular NPs and PEG-Au@Ag NPs-treated *E. coli* bacteria at different time points with the concentrations of (a) 50, (b) 25, and (c) 12.5 $\mu\text{g/mL}$.

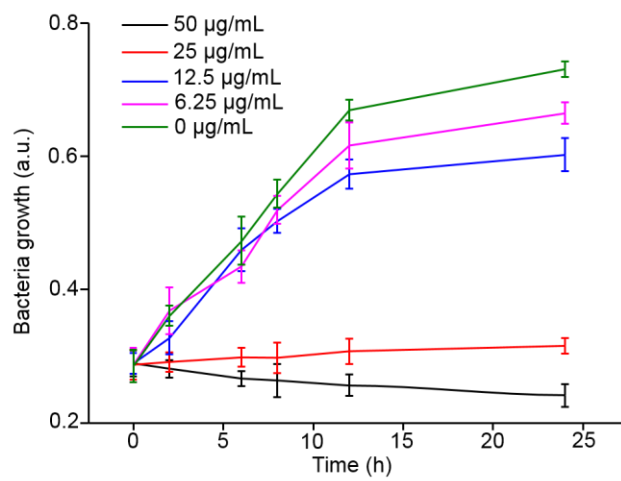


Fig. S9. The bacteria growth amount co-cultured with the PEG-Au@Ag NPs at different concentrations.

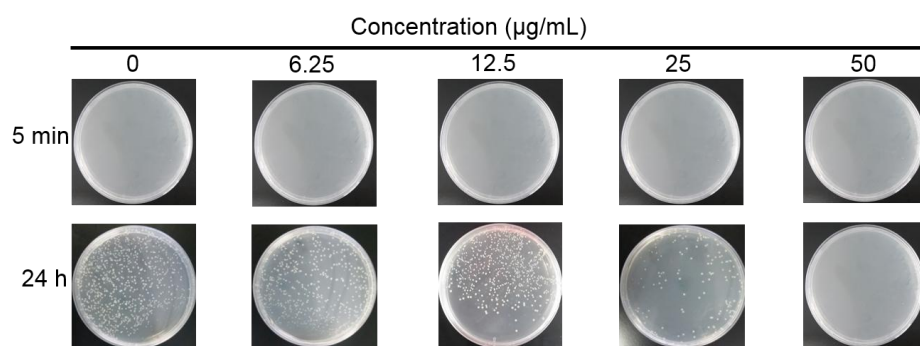


Fig. S10. The bacterial colonies co-cultured 5 min and 24 h with PEG-Au@Ag NPs at different concentrations.