Supporting Information

Near-Infrared Responsive Bimetallic Nanovesicles for Enhanced Synergistic Chemo-Photothermal Therapy

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Materials

Triptolide (TP) was purchased from Chengdu Pufei De Biotech Co., Ltd. (Chengdu, China) Soya lecithin was purchased from Shenyang Tianfeng Biological Pharmaceutical Co., Ltd. (Shenyang, China). Cholesterol, surfactant Tween-80, PEG-2000, and Sodium borohydride ($NaBH_4$) were purchased from Tianjin Guangfu Fine Chemical Research Institute (Tianjin, China). Reduced L-Glutathione (GSH) was purchased from Sigma-Aldrich (Shanghai) Trading Co., Ltd. Auric chloride ($AuCl_3$) was purchased from Chengdu Xiya Reagent Co., Ltd (Chengdu, China). Chloroplatinic acid (H_2PtCl_4) was purchased from Shanghai Jiuyue Chemical Industry Co. Ltd (Shanghai, China). Coumarin-6 (Cou6) was purchased from Aladdin Industrial Corporation. 3-(4,5-dimethyl-2-thiazolyl)-2,5-diphenyl-2-H-tetrazolium bromide (MTT) was purchased from Shanghai Macklin Biochemical Technology Co., Ltd (Shanghai, China). Anhydrous ethanol used analytical grade. In all preparations, deionized water was used.

Characterization of Pt@Au-TP-Lips

Transmission electron microscopy (TEM) measurements were performed on (TEM, HT7700, Japan) with a CCD camera operated at an accelerating voltage of 100 kV. The zeta potential and hydrodynamic diameter of the Pt@Au-TP-Lips were determined at 25°C with a Malvern Zetasizer Nano-ZS90 (Malvern Instruments, UK). SEM images and element mapping were obtained on a field emission scanning electron microscope (FESEM, SUPRA 55). An UV-Vis spectrometer (Shimadzu UV2550, Japan) was used to record the absorption spectra of the Pt@Au-TP-Lips.

Cell culture

The HeLa cell line (cervical cancer cell line) was acquired from Shanghai Tianjing Biological Technology Co. Ltd (Shanghai, China). HeLa cells were cultured in Dulbecco's modified Eagle's medium (DMEM) containing 10% fetal bovine serum (FBS) and 1% penicillin/streptomycin at a humidified atmosphere containing 5% CO_2 at 37°C.

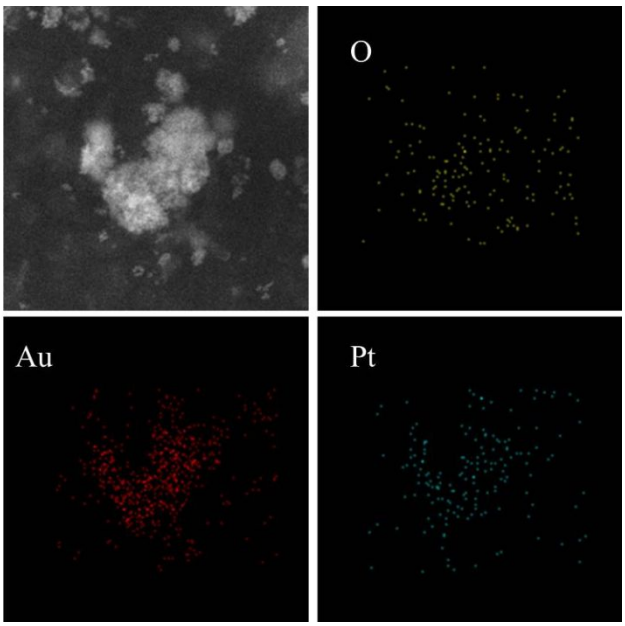

Figure S1 SEM-EDS mapping images of Pt@Au-TP-Lips

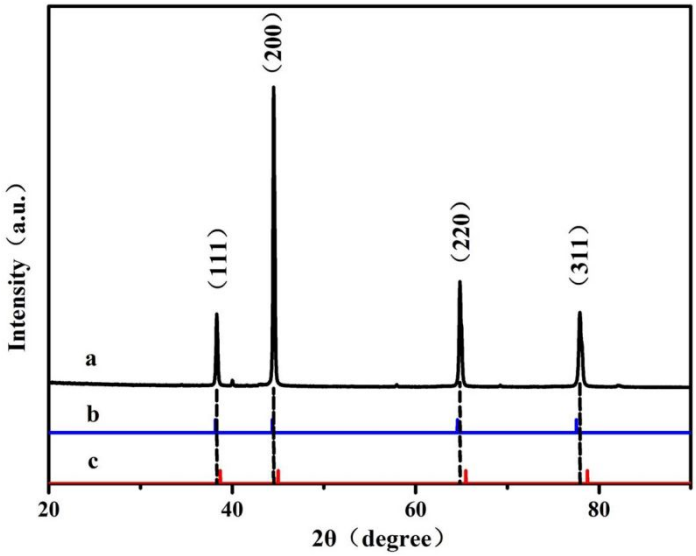

Figure S2 XRD spectra of (a) Pt@Au-TP-Lips, (b) individual Au, (c) individual Pt.

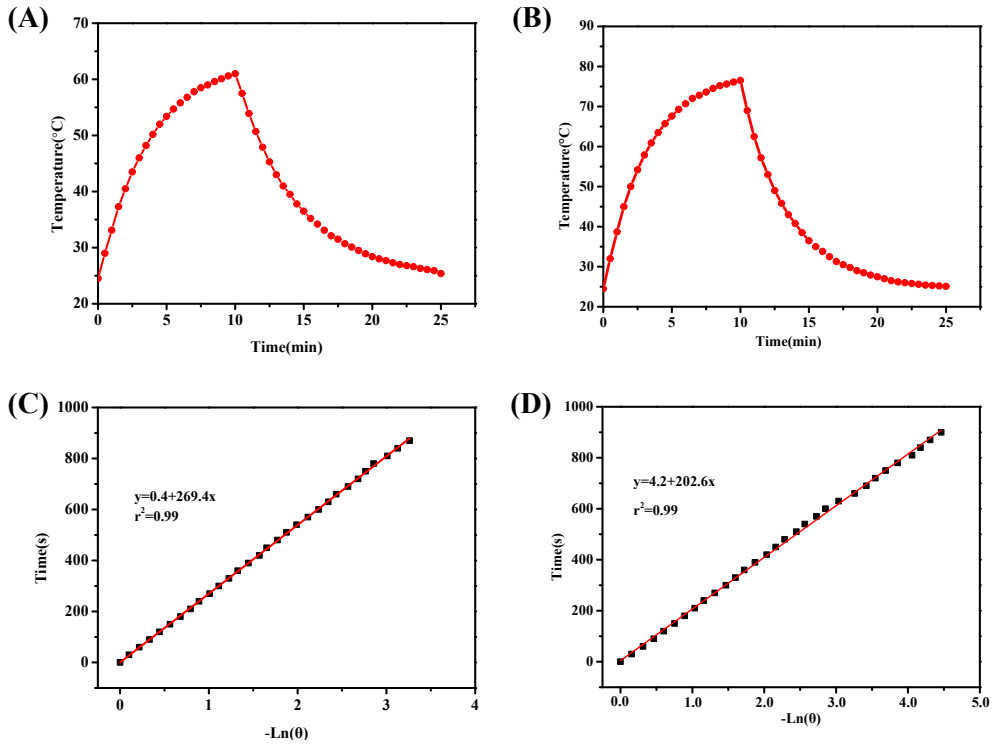

Figure S3 (A) (B) The course of the temperature of the AuNF-TP-Lips and Pt@Au-TP-Lips (58 μg mL^{-1}) under irradiation at 808 nm with a power density of 2W cm^{-2} for 10 min and then allowed to cool to room temperature after turning off the laser. (C) (D) Plot of cooling time as a function of the negative natural logarithm of the temperature driving force obtained from a cooling stage, as shown in (A) and (B).

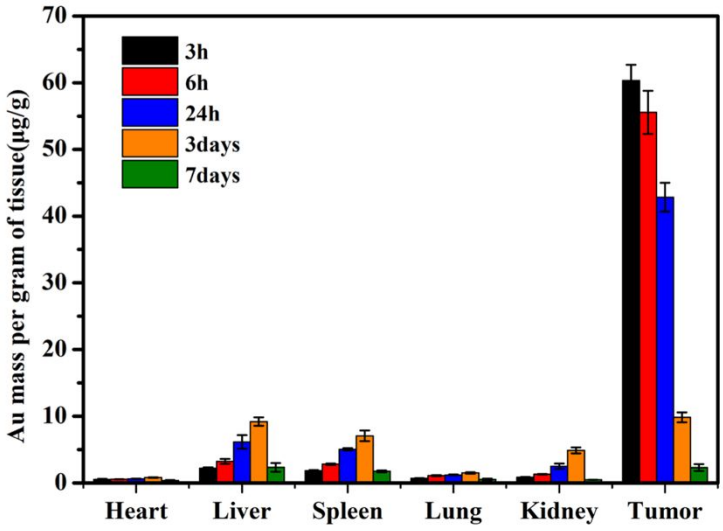

Figure S4 Quantitative *in vivo* biodistribution analysis of Au after intratumorally injection of Pt@Au-TP-Lips.

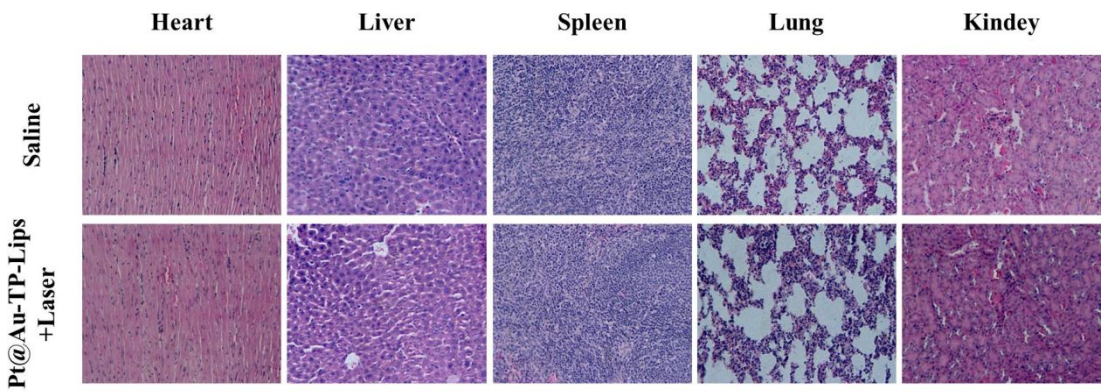

Figure S5 Representative images of H&E-stained major tissues from the mice treated with saline and Pt@Au-TP-Lips+Laser.