Supporting Information:

GE11-PDA-Pt@USPIOs Nano Formulations for Relief of Tumor Hypoxia and MRI/PAI-Guided Tumor Radio-chemotherapy

Chengcheng Yang,^{ab} Xuan Mi,^{ab} Huilan Su,^c Jingxing Yang,^b Yiyun Gu,^b Lu Zhang,^b Wenshe Sun,^b Xiaowen Liang ^d and Chunfu Zhang *^{ab}

a. Department of Nuclear Medicine, Rui Jin Hospital, School of Medicine, Shanghai Jiao Tong University, Shanghai 200025, China

b. School of Biomedical Engineering, Shanghai Jiao Tong University, Shanghai 200230, China

c. State Key Laboratory of Metal Matrix Composites, School of Materials Science and Engineering, Shanghai Jiao Tong University, Shanghai 200240, China

d. The University of Queensland Diamantina Institute, The University of Queensland, Woolloongabba, QLD 4102, Australia

Table S1. Zeta potentials of the probe at different steps of preparation

Probes	Zeta potential (mV)
PAA@USPIOs	-38.17
Pt@USPIOs	-9.28
PDA-Pt@USPIOs	-11.04
PEG-PDA-Pt@USPIOs	-20.53
GE11-PDA-Pt@USPIOs	-34.1



Figure S1. The temperature change curves of GE11-PDA-Pt@USPIOs suspensions when irradiated with 808nm laser at a power of 1W/cm².



Figure S2. (A-C) Prussian blue staining of MCF-7 cells treated with GE11-PDA-Pt@USPIOs (A), GE11 + GE11-PDA-Pt@USPIOs (B) and PEGylated USPIOs (C) at a concentration of 3 mM Fe for 3 h. Scale bar: 100 μ m. (D) Intracellular Fe contents quantified by atomic adsorption spectroscopy.



Figure S3. NIR photothermal imaging of tumors exposed to an 808 nm laser at

1W/cm² 6 h after the tumor-bearing mice were treated GE11-PDA-Pt@USPIOs, GE11 + GE11-PDA-Pt@USPIOs (11.2 mg Fe/kg b. w.) or PBS post-injection.



Figure S4. Immunohistological staining of H1299 tumor tissues against EGFR. Scale Bar: 50 μm