## Supporting Information

# Charge-reversal functionalized PLGA nanobubbles as theranostic agents for ultrasonic imaging-guided combination therapy 

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Figure S1. Characterization of PAH-Cit. (A) Proton nuclear magnetic resonance $\left({ }^{1} \mathrm{H}-\right.$ NMR) spectrum of PAH-Cit. (B) Fourier transform infrared spectroscopy (FT-IR) spectrum of PAH-Cit.


Figure S2. Cellular uptake of the Dox in MCF-7 and MCF-7/ADR cells treated with free Dox, Dox-NBs/PPP, Dox-NBs/PPP/SC shRNA and Dox-NBs/PPP/P-gp shRNA for 72 h detected by fluorescence activated cell-sorting (FACS) analysis.


Figure S3. In vitro cell viability of HUVEC, HeLa, MCF-7 and MCF-7/ADR cells after treatment with NBs/PPP at the concentration of $0-200 \mu \mathrm{~g} / \mathrm{mL}$ for 48 h .


Figure S4. Fluorescence microscopy images of MCF-7 cells (A) and MCF-7/ADR cells (B) after various treatments. All the cells were co-stained with Calcein-AM and propidium iodide. Green and red colors represent live and dead cells, respectively.

