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Abstract

Stimuli-responsive nanoparticles are focused to promote the pathological specificity and controlled therapeutic activation in biomedicine, but the multifunctional modulation remains challenging. Herein, size and morphology switchable phototheranostic nanoparticles are developed for photoacoustic (PA) imaging-guided photothermal-chemotherapy. Multifunctional polypyrrole (PPy) nanoparticles with the template of upper critical solution temperature (UCST) polymers are designed to achieve light-controlled pulsatile drug release and concurrent activation of photothermal therapy (PTT). Wherein the UCST-featured inner core is loaded with camptothecin (CPT), the outer corona is tethered

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