Electronic Supplementary Information

Constructing H^+-Trigger Bubble-Generating Nano-Drug Delivery Systems using Bicarbonate and Carbonate

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† Electronic Supplementary Information (ESI) available: Table. S1; Fig. S1 – S5

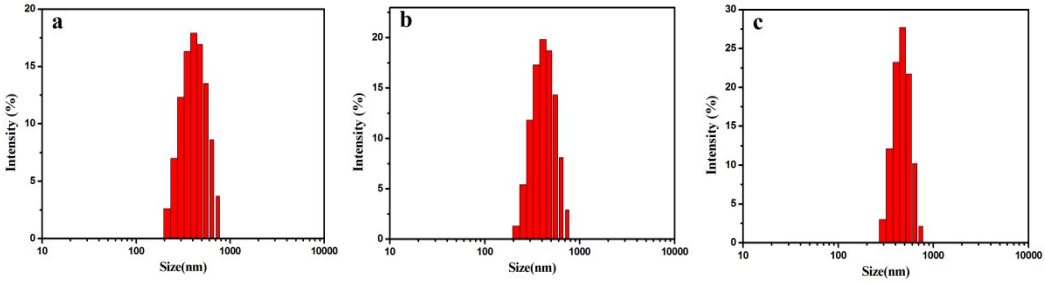

Fig. S1. Particle size distributions of the HMSNs (a), BGNSs-AC (b) and BGNSs-SBC (c) in water, as measured by dynamic light scattering (DLS).

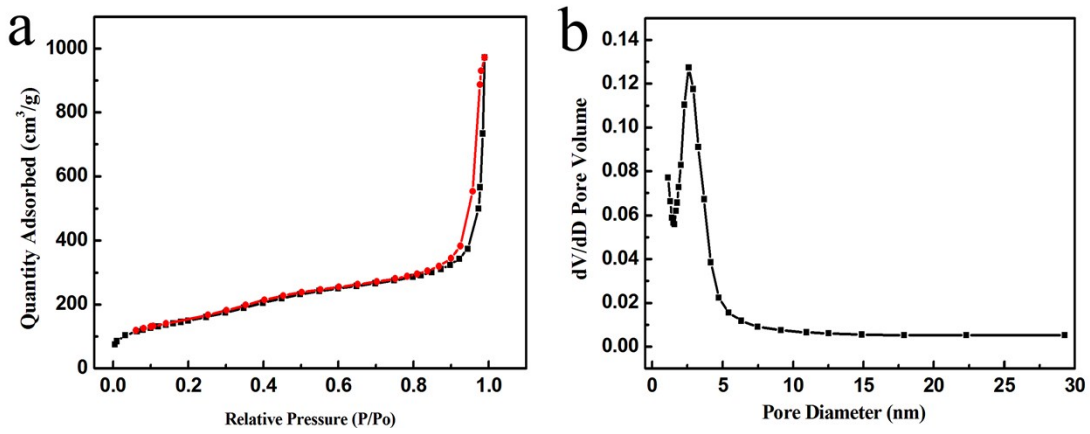

Fig. S2. Nitrogen adsorption–desorption isotherms of HMSNs (a) and pore size distribution of HMSNs (b).

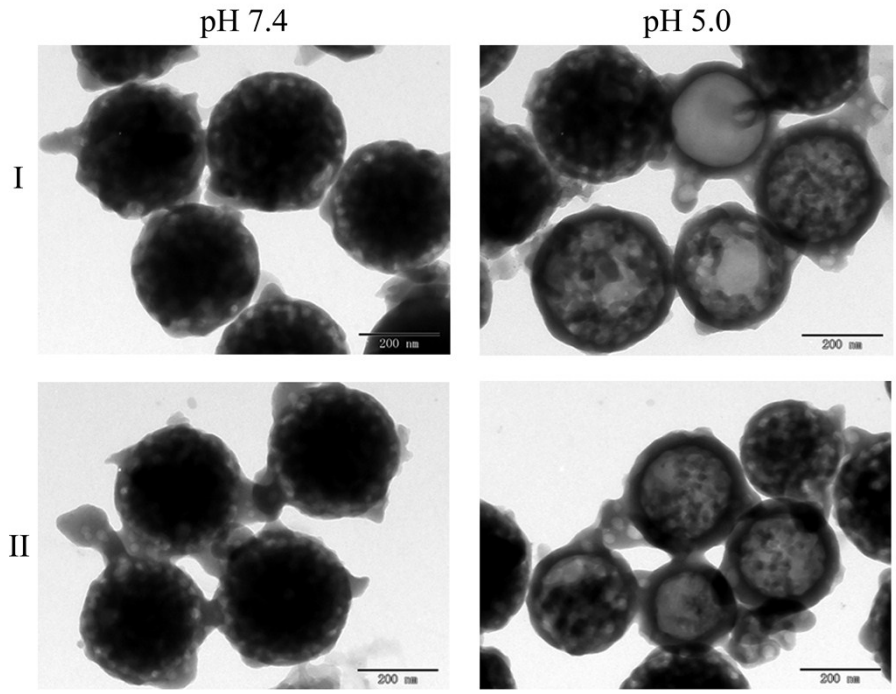

Fig. S3. TEM images of BGNSs-AC (I) and BGNSs-SBC (II) after incubation for 24 h in PBS 7.4 and 5.0.

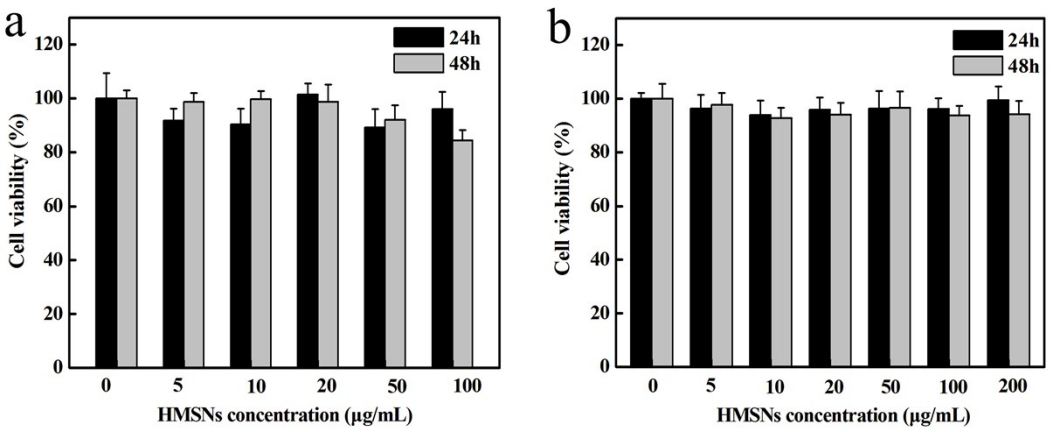

Fig.S4. Cytotoxicity of HMSNs against MCF-7 cells (a) and MCF-7/ADR cells (b).

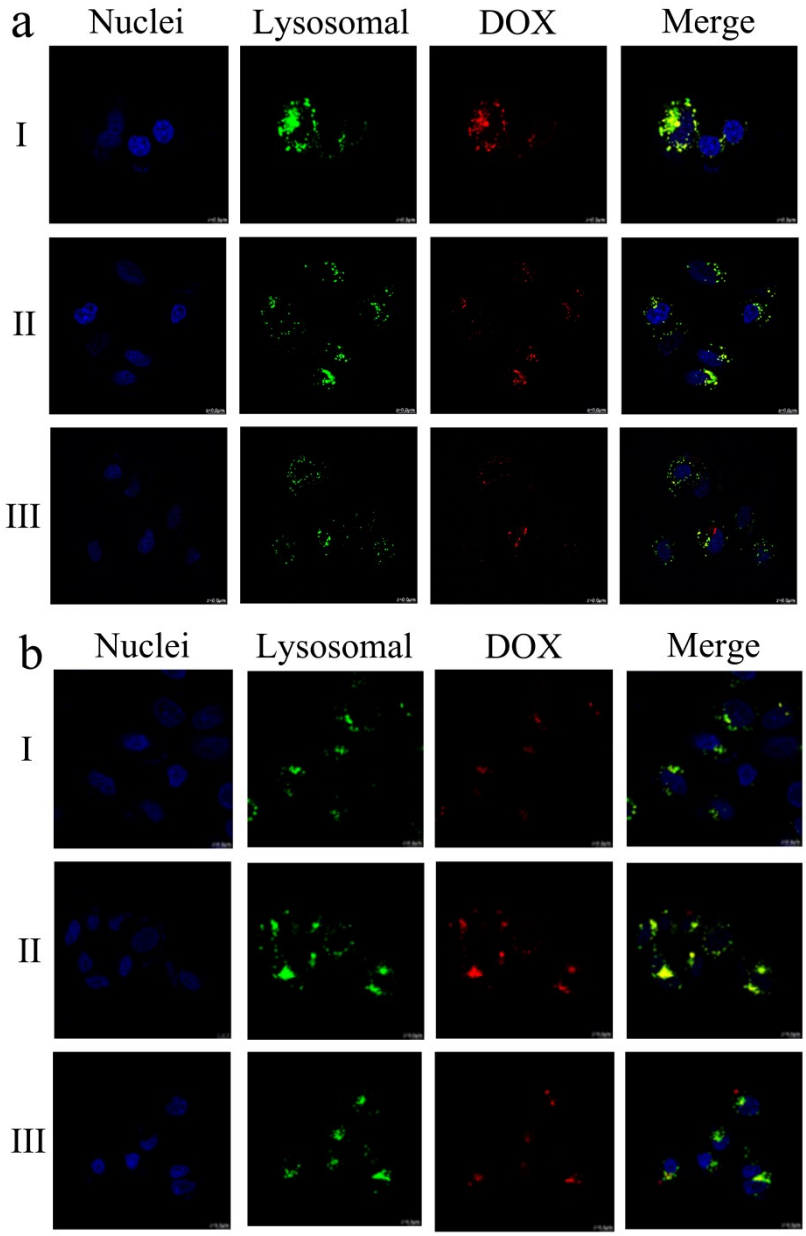

Fig. S5. CLSM images of the accumulation of DOX in MCF-7 cells after incubating with free DOX (I), BGNSs-AC (II) and BGNSs-SBCA (III) for 4 h (a), 24 h (b).

Table. S1 The zeta potential and the DLS size of different nanocarriers.

Sample	Zeta-Potential (mV)	DLS diameter (nm)	PDI
HMSNs	-25.4 ± 4.84	391.2 ± 35.3	0.141
BGNSs-AC	-22.1 ± 3.74	412.5 ± 55.2	0.201
BGNSs-SBC	-8.67 ± 3.75	430.4 ± 47.3	0.186