Electronic Supplementary Material (ESI) for Biomaterials Science.

Supporting Information

Facile Synthesis of Organosilica-capped Mesoporous Silica Nanocarriers with Selective Redox-triggered Drug Release Property for Safe Tumor Chemotherapy

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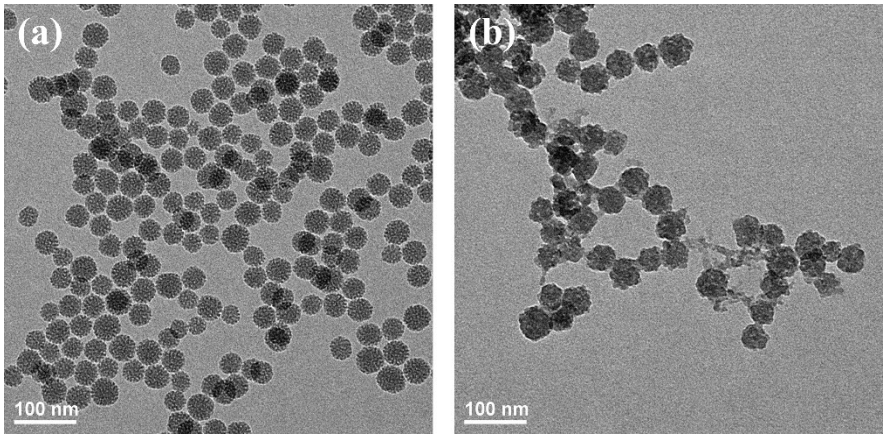

Fig. S1. TEM images of MSNs (a) and OMSNs (b).

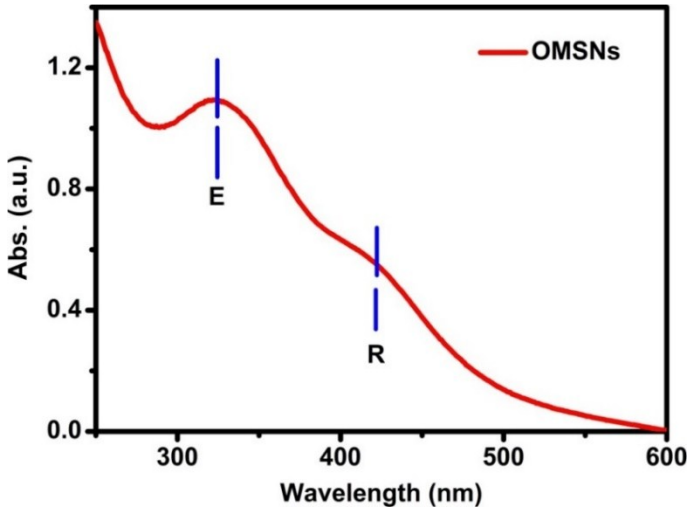

Fig. S2. The Ellman assay of OMSNs: E is the absorption peak of DTNB, R is the absorption peak of TNB.

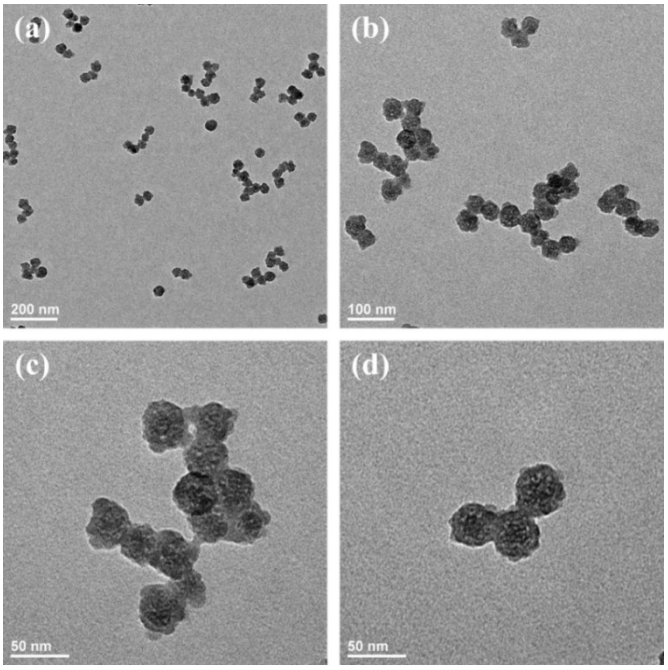

Fig. S3. TEM images of POMSNs at varied magnifications (a-d).

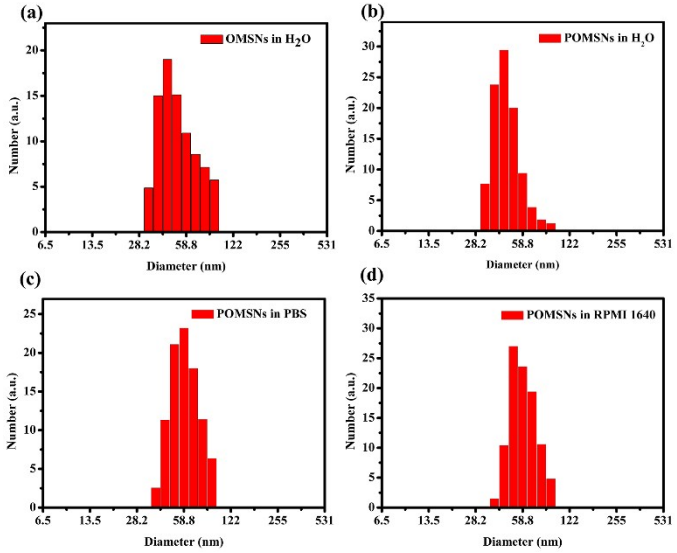

Fig. S4. Average hydrodynamic diameters of OMSNs in pure water (a) and of POMSNs in H_2O (b), PBS (c) and RPMI 1640 (d).

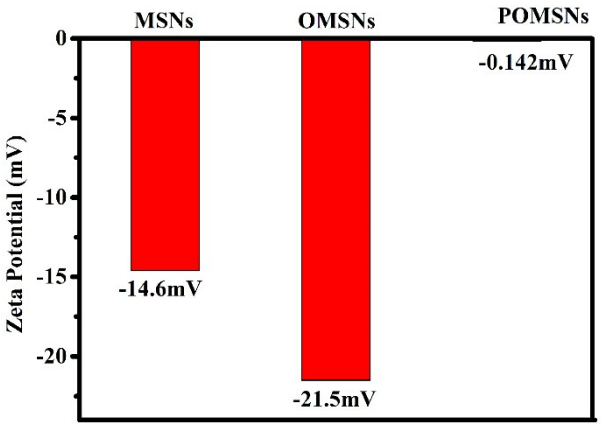

Fig. S5. Zeta potentials of MSNs, OMSNs and POMSNs in water.

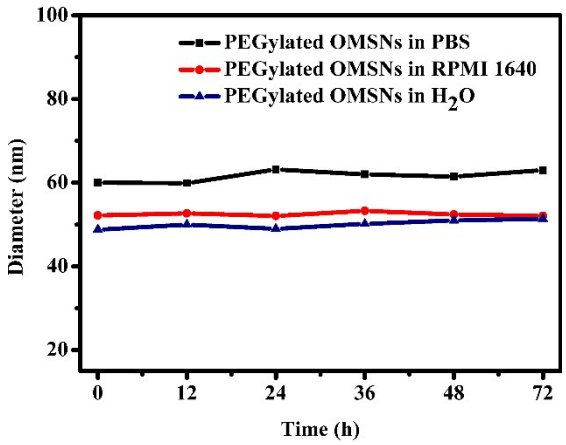

Fig. S6. The hydrodynamic particle sizes of POMSNs in pure water, PBS and RPMI 1640, respectively.

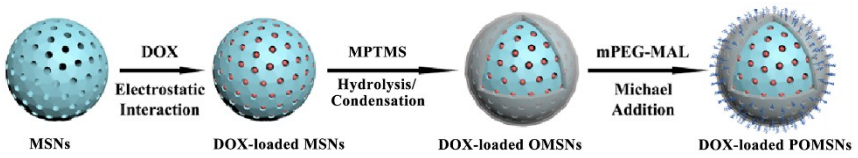

Fig. S7. Schematic illustration for the synthesis of the DOX-loaded POMSNs.

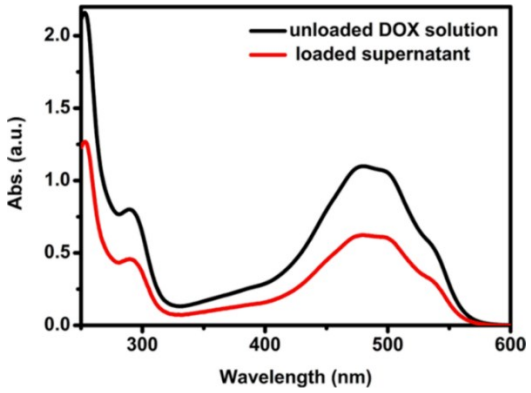

Fig. S8. UV-vis spectra of DOX-loaded MSNs.

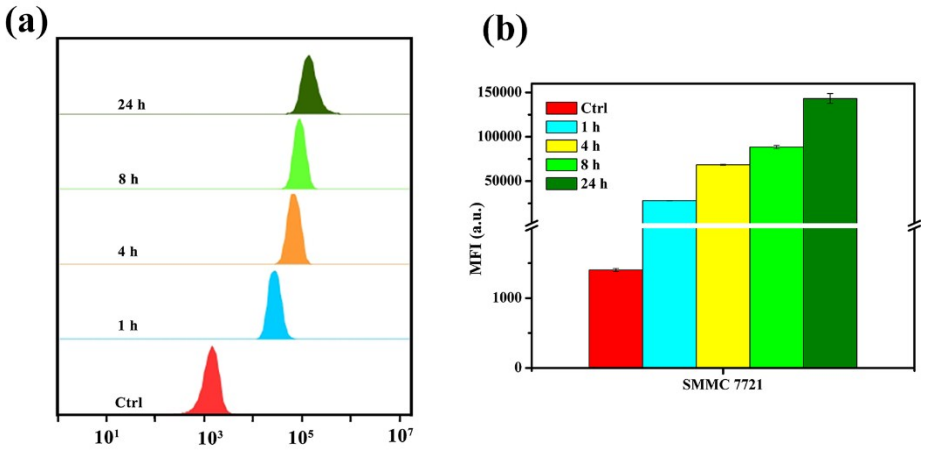

Fig. S9. (a) Flow Cytometric analysis and (b) Mean Fluorescence Intensity analysis of FL2-A channel in SMMC-7721 cells after incubated with DOX-loaded POMSNs for different time points (1, 4, 8 and 24 h).

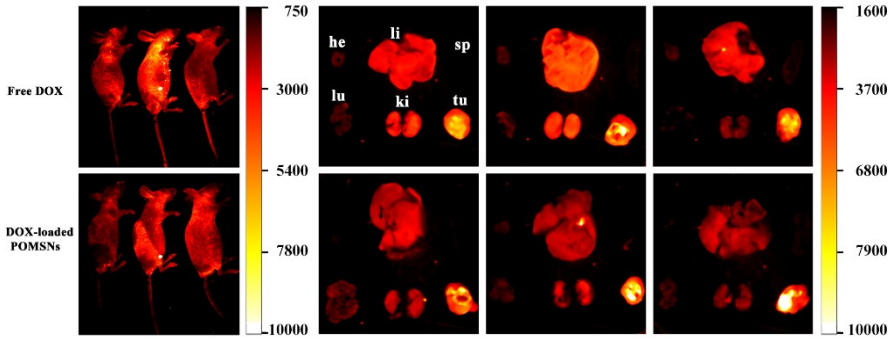

Fig. S10. Fluorescence images of DOX in mice after intravenous injection of Free DOX and DOX-loaded POMSNs nanoparticles at a dosage of 5 mg/kg at different time points (1 h, 4 h and 24 h).