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Supplementary Information for

Dual responsive targeted drug delivery system based on smart polymer coated mesoporous silica for laryngeal carcinoma treatment

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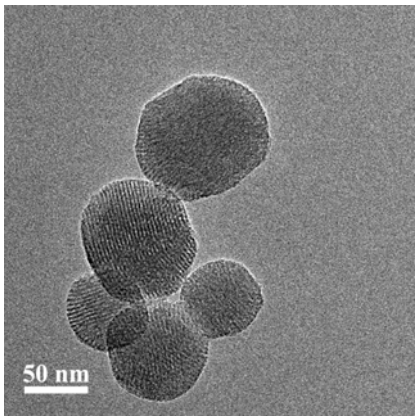

Fig. S1. The TEM image of MSNs.

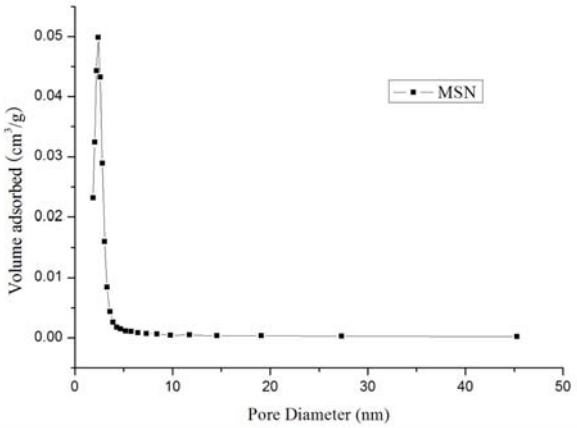

Fig. S2. Pore size distribution curve derived from desorption isotherm measurements and Barret–Joyner–Halenda (BJH) analysis indicated an average pore diameter of 2.5 nm.

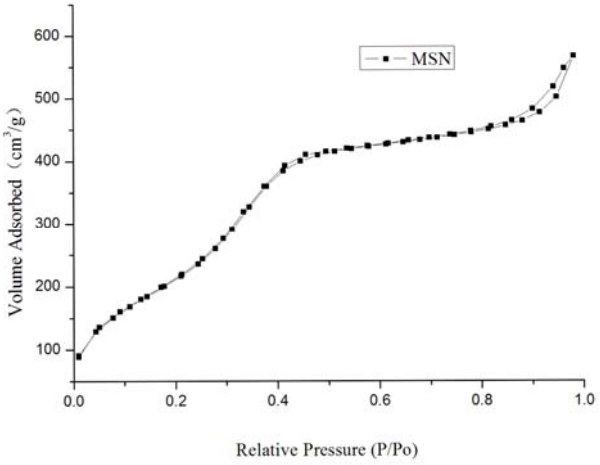

Fig. S3. Nitrogen adsorption desorption isotherms and Brunauer–Emmett–Teller (BET) analysis indicated specific surface area of 786 m^2g^{-1}.

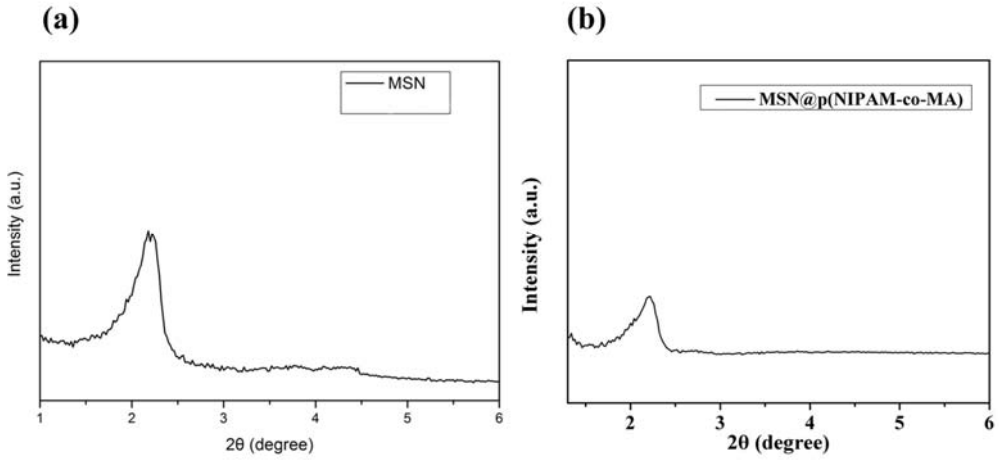

Fig. S4. Low-angle XRD pattern revealed that (a) MSNs exhibited a well-ordered porous structure with a hexagonal arrangement, (b) MSN@p(NIPAM-co-MA) still remained mesoporous despite the lower intensity of XRD peaks, which may be ascribed to the capping effect.

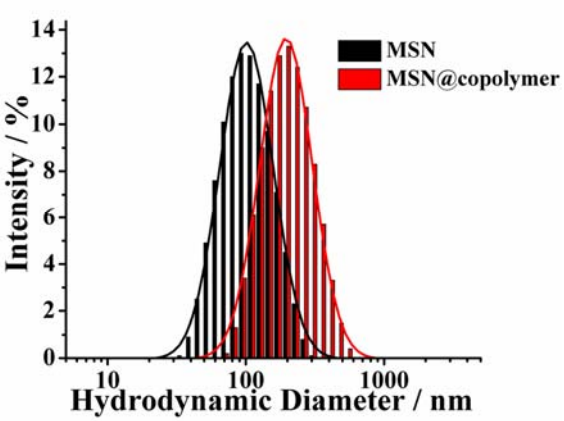

Fig. S5. Hydrodynamic diameter of MSN and MSN@p(NIPAM-*co*-MA).

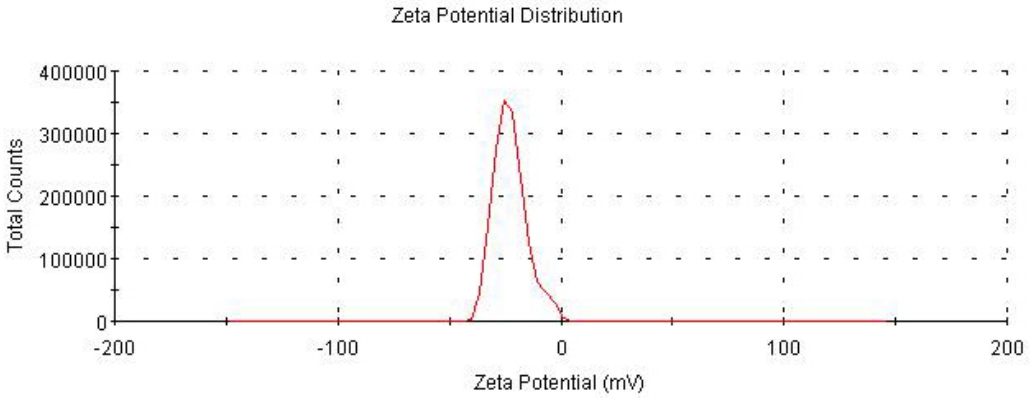

Fig. S6. Zeta potential distribution of MSN@p(NIPAM-*co*-MA) in distilled H_2O.

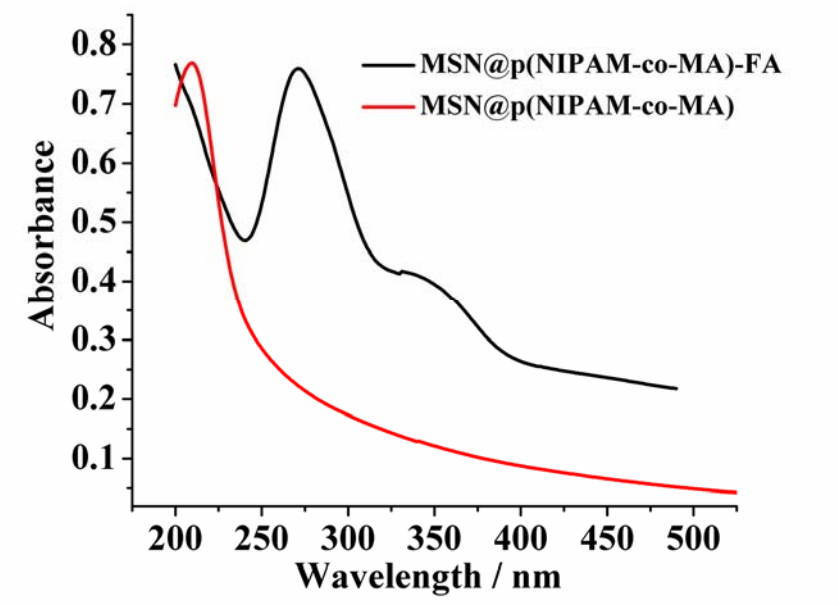

Fig. S7. UV-vis absorption spectra of MSN@p(NIPAM-*co*-MA) and MSN@p(NIPAM-*co*-MA)-FA.

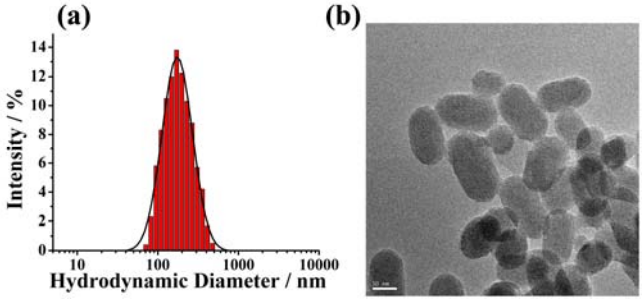

Fig. S8. The nanodevices were stable in 10mM PBS. They were well distributed in PBS for one month without significant changes to their size (a) and morphology (b).

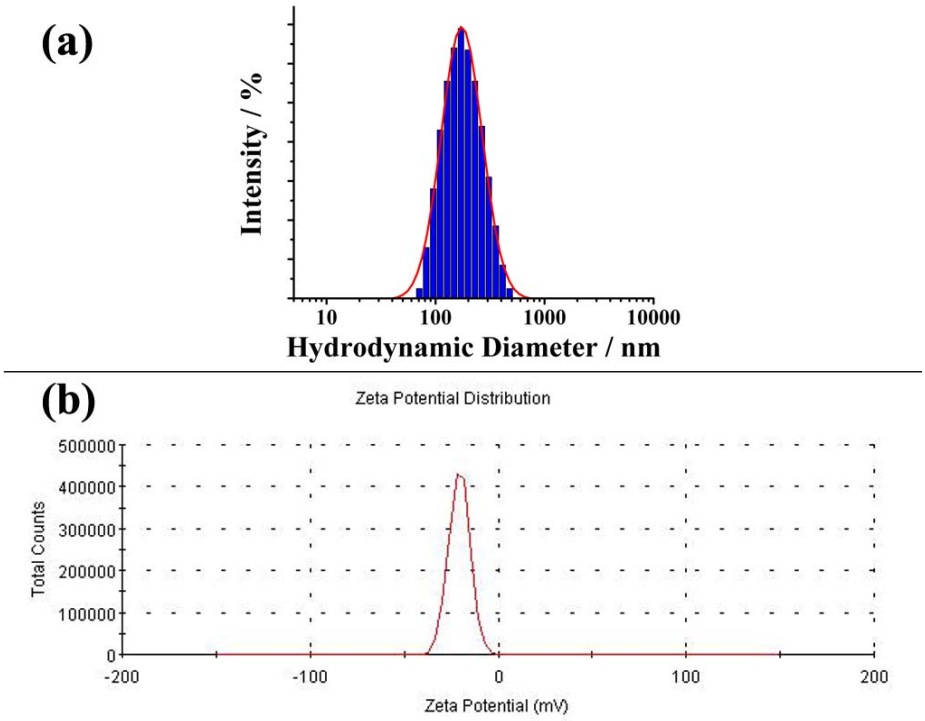

Fig. S9. (a) Hydrodynamic diameter and (b) Zeta potential distribution of the nanocarriers after drug loading. No significant changes were observed.

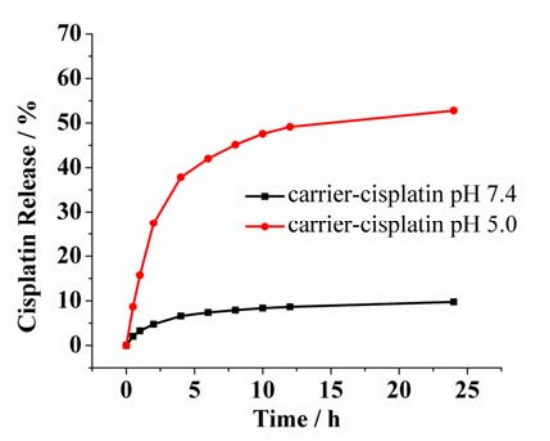

Fig. S10. Release profiles of cisplatin-loaded MSN@p(NIPAM-co-MA)-FA in response to pH at room temperature.

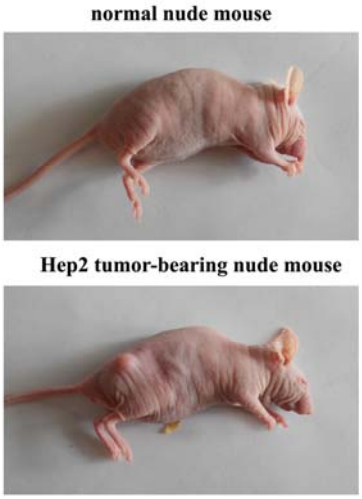

Fig. S11. Hep2 tumor-bearing nude mice.