

ARTICLE

Polydopamine-doped virus-like structured nanoparticles for photoacoustic imaging guided synergistic chemo-/photothermal therapy

Received 00th January 20xx,
Accepted 00th January 20xx

DOI: 10.1039/x0xx00000x

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Electronic supplementary information

Table S1 DLS size distribution and polydispersity index of GNR, GNR@HPMO, GNR@HPMO@PVMSN.

GNR	GNR@HPMO	GNR@HPMO@PVMSN
60.42nm (PDI: 0.236)	127.14nm (P DI:0.322)	201.27nm (PDI:0.202)

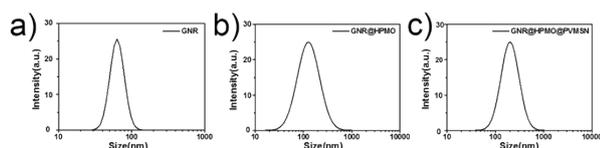


Fig S1 DLS diameters of GNR (a), GNR@HPMO (b), GNR@HPMO@PVMSN (c).

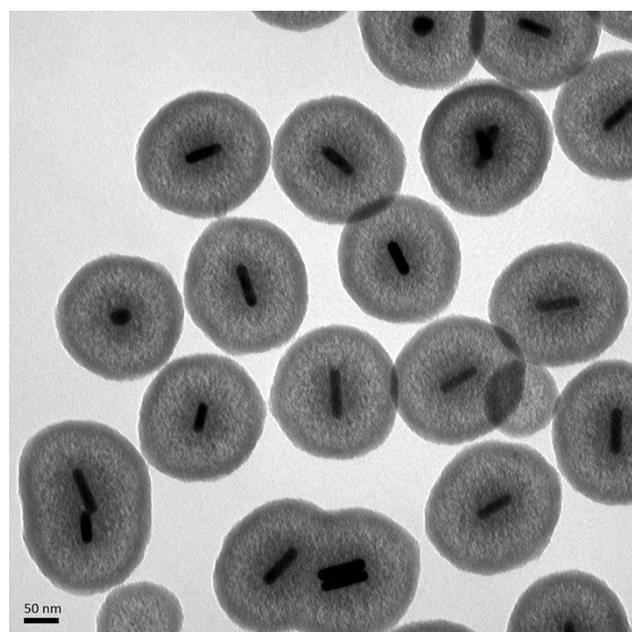


Fig. S2 TEM image of GNR@HPMO, the ethanol/water ratio is 0.39. Scale bar, 50 nm.

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Electronic Supplementary Information (ESI) available: [details of any supplementary information available should be included here]. See DOI: 10.1039/x0xx00000x

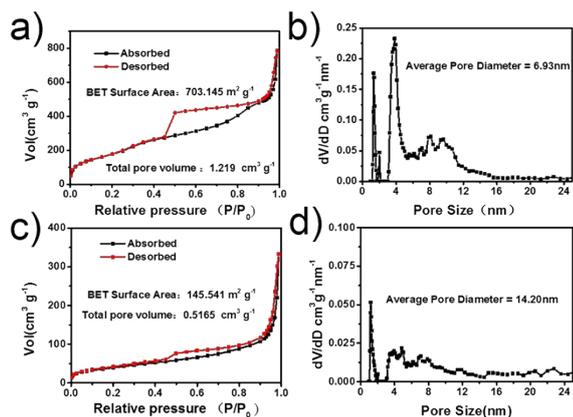


Fig. S3 Nitrogen adsorption-desorption isotherms and pore size distribution curves of GNR@HPMO (a-b) and GNR@HPMO@PVMSN (c-d).

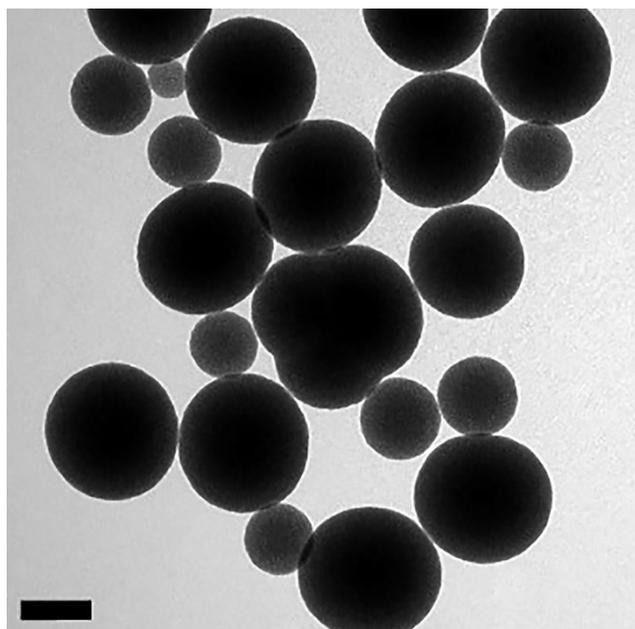


Fig. S4 TEM image of GNR@HPMO@VMSN, reaction without dopamine at the same reaction time of 17 h. Scale bar, 200 nm.

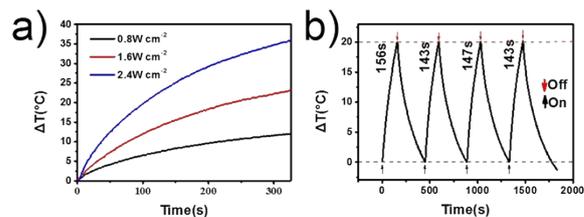


Fig. S5 (a) Temperature curves of GNR@HPMO@PVMSN aqueous solution under different power densities; (b) Temperature curves of GNR@HPMO@PVMSN aqueous solution through four cycles of 808 nm laser on/off.

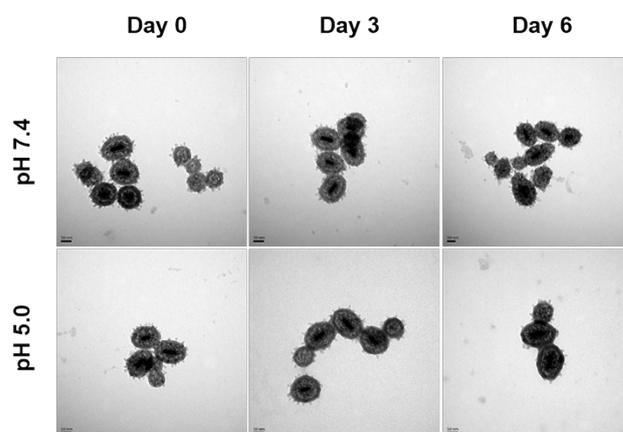


Fig. S6 TEM images of GNR@HPMO@PVMSN at pH 7.4 and 5.0 for 0, 3 and 6 day.

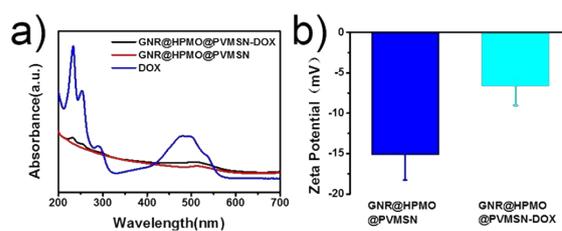


Fig. S7 (a) UV-Vis-NIR absorption spectra of DOX, GNR@HPMO@PVMSN and GNR@HPMO@PVMSN-DOX; (b) Zeta potential analysis for GNR@HPMO@PVMSN and GNR@HPMO@PVMSN-DOX.

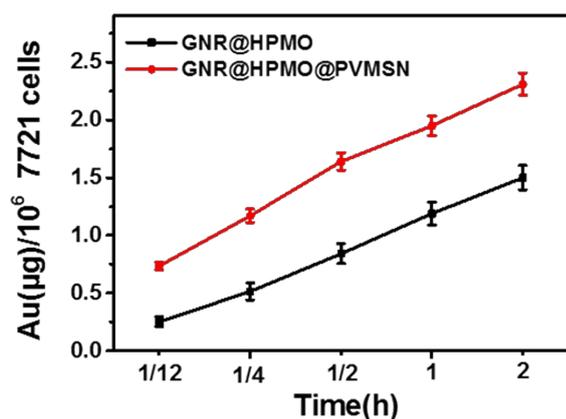


Fig. S8 Time-dependent quantitative analysis of the Au content in 7721 cells after incubation for 5, 15, 30 min, 1 and 2 h.

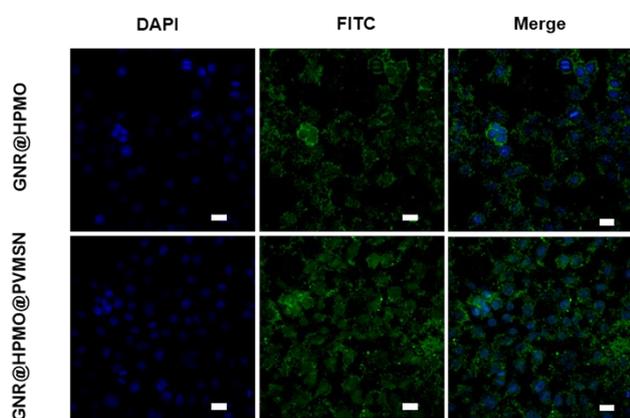


Fig. S9 CLSM images of the 7721 cells incubated with GNR@HPMO, and GNR@HPMO@PVMSN for 24 h by using DAPI as nuclear staining reagent and FITC as fluorescent labeling of materials. Scale bar, 20 μm .

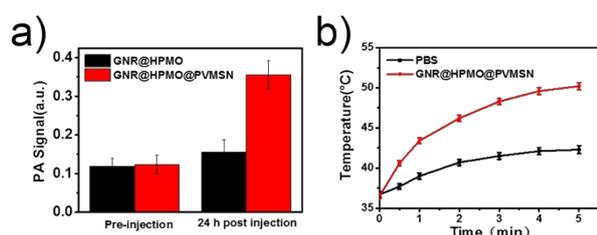


Fig. S10 (a) PA images of tumor-bearing mice before and after intravenous injection of GNR@HPMO@PVMSN and GNR@HPMO; (b) Time dependent temperature curves of tumor-bearing mice after intravenous injection with PBS or GNR@HPMO@PVMSN for 24h exposed to the 808 nm laser (0.8 W cm^{-2}) for 5 min.

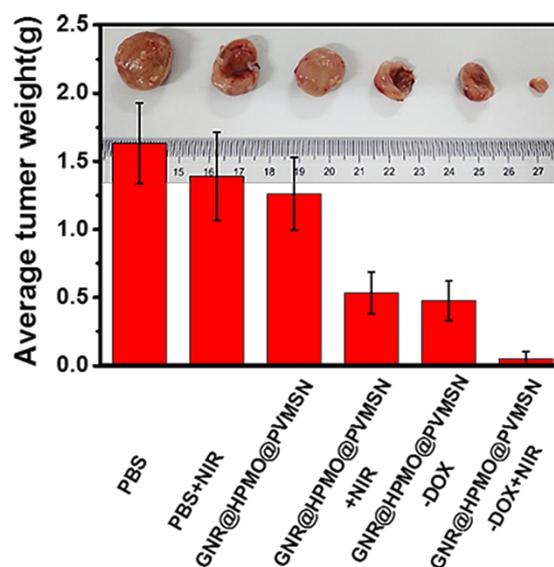


Fig. S11 Photographs and weights of excised tumors from representative euthanized mice after various treatments.

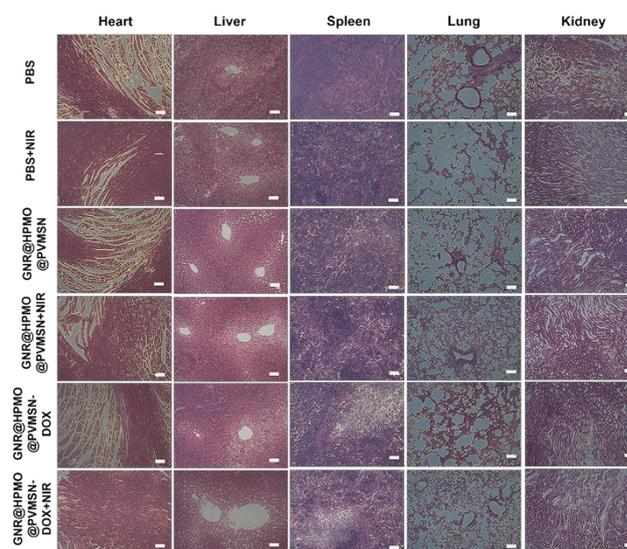


Fig. S12 Representative H&E stained images of major organs including the heart, liver, spleen, lung, and kidney collected from tumor-bearing mice after 16 day of therapy. Scale bar, 200 μm .