Supporting Information

Dual-enhanced photothermal conversion property of reduced graphene oxide-coated gold superparticles for light-triggered acoustic and thermal theranostics

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Fig. S1. Digital image of GNPs in chloroform and 90 nm GO-GSPs in water. The colour change demonstrated the successful assembly of GNPs.

Fig. S2. (a) UV-vis spectra of GO and rGO. (b) UV-vis spectra of GO-GSPs and rGO-GSPs.
Fig. S3. Raman spectra of GO, rGO, GO-GSPs, and rGO-GSPs.

Fig. S4. (a) TEM image and (b) UV-vis spectrum of CTAB-capped GNRs. Inset in (b) is the photo of the GNRs dispersed in water. (c) TEM image of rGO-GNRs. The red arrows point to the rGO shell.
**Fig. S5.** (a) TEM image and (b) UV-vis spectrum of GSPs. Inset in (b) is the photo of the GSPs dispersed in water.

**Fig. S6.** (a) TEM image of rGO-GSPs after 808 nm laser irradiation at a power density of 1 W cm\(^{-2}\) for 30 min. (b) UV-vis spectra of rGO-GSPs before and after laser irradiation (1 W cm\(^{-2}\), 30 min).
Fig. S7. Photos of PEG-rGO-GSPs in water, PBS, cell culture medium, and fetal bovine serum (FBS), showing good dispersibility in different media without obvious aggregation.

Fig. S8. Body weight curves of U87MG tumour-bearing mice at different time points after various treatments.
Fig. S9. Representative H&E stained images of major organs collected from different groups of mice at 14 days post-treatment.