

## Supporting Information for

## ORIGINAL ARTICLE

### Photothermal/matrix metalloproteinase-2 dual-responsive gelatin nanoparticles for breast cancer treatment

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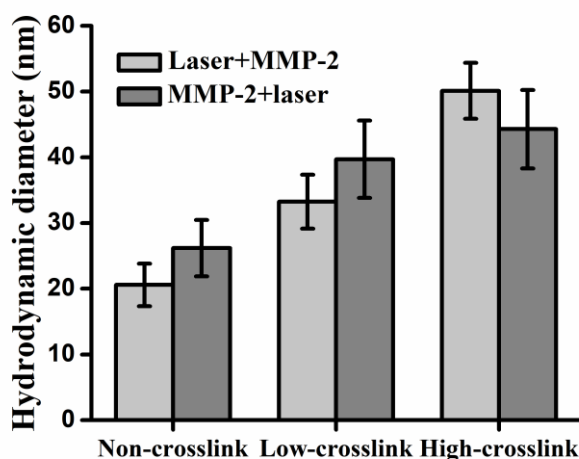
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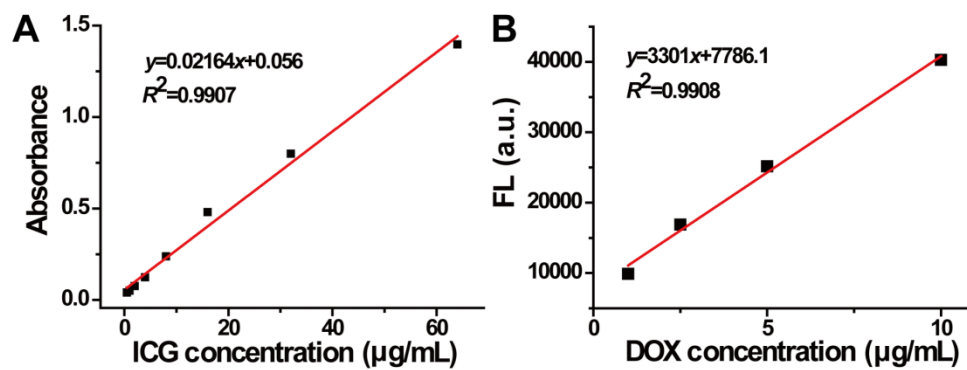
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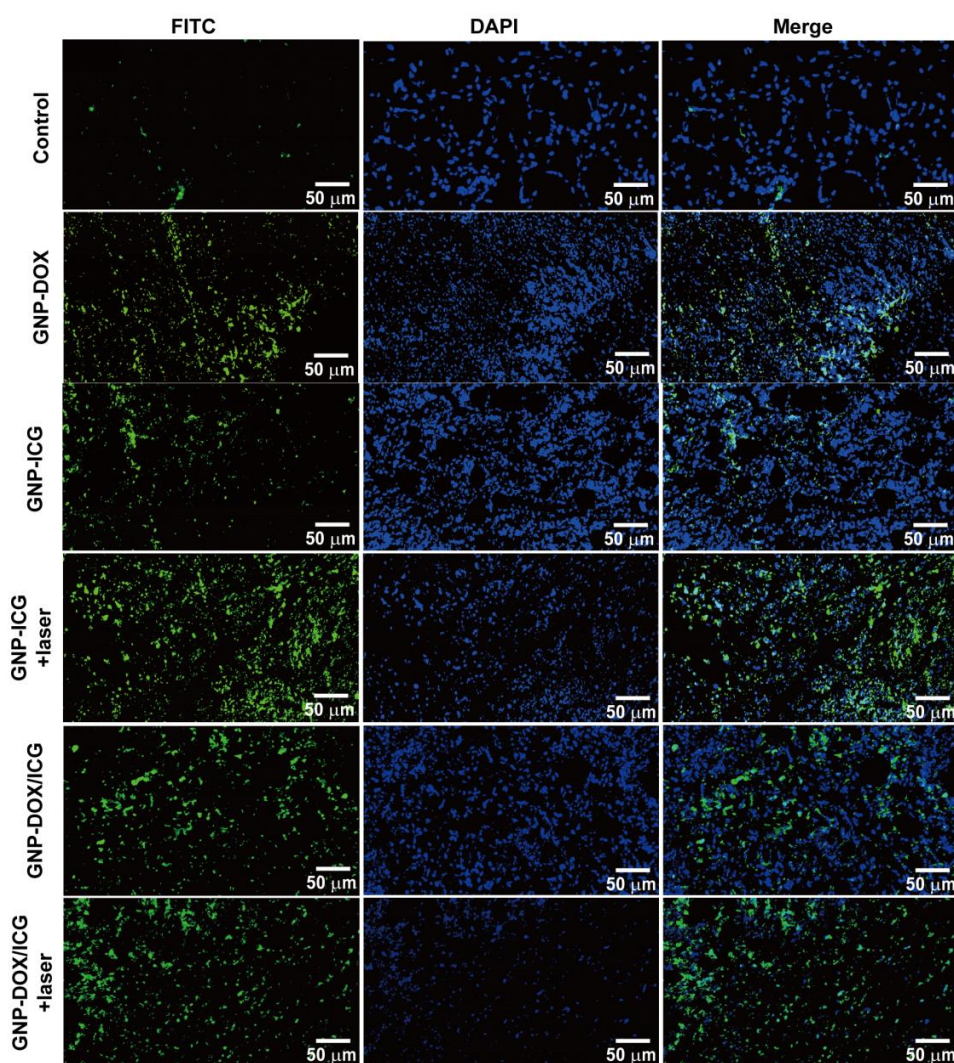
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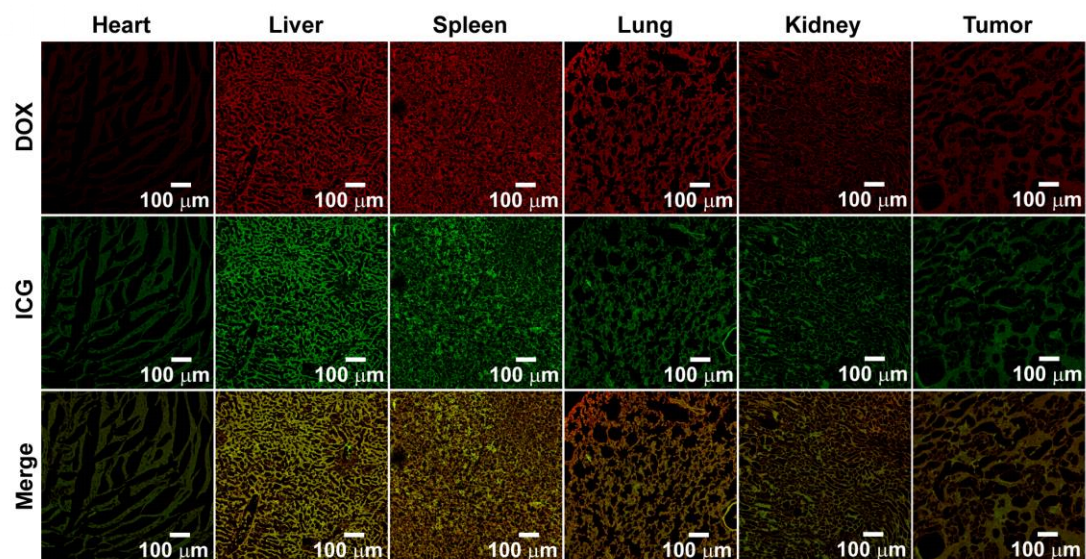
**Figure S1** Hydrodynamic diameter of different crosslinked GNP-DOX/ICG treated with laser irradiation and MMP-2 incubation sequentially. Data are presented as mean  $\pm$  SD,  $n=3$ .



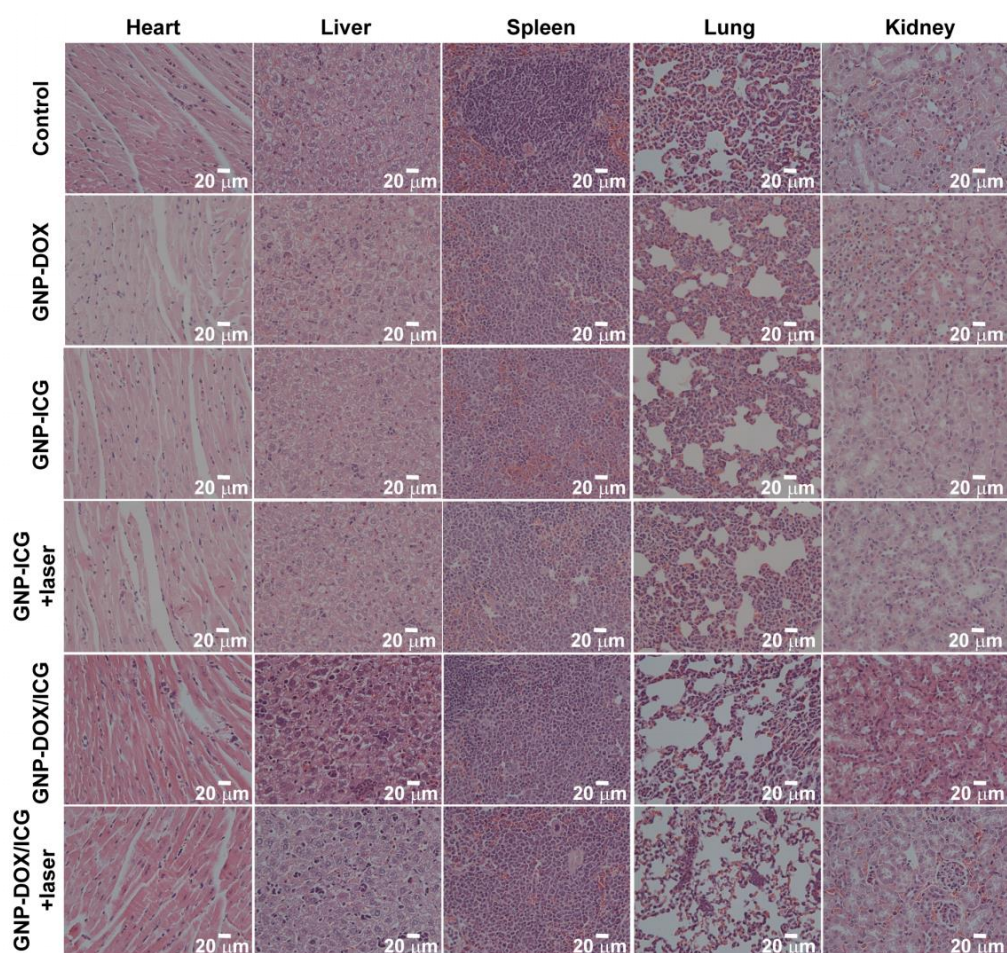
**Figure S2** (A) The standard curve of absorption of ICG as a function of concentration, the absorption was measured at 800 nm. (B) The standard curve of fluorescence of DOX as a function of concentration, the fluorescence was measured at 595 nm.



**Figure S3** TUNEL immunofluorescence of tumors after PBS, GNP-DOX, GNP-ICG, GNP-ICG+laser, GNP-DOX/ICG, and GNP-DOX/ICG+laser treatment.



**Figure S4** Fluorescent distribution in 4T1 tissue slices after GNP-DOX/ICG treatment.



**Figure S5** H&E staining images of major organs collected from mice on Day 21 after treatment with PBS, GNP-DOX, GNP-ICG, GNP-ICG+laser, GNP-DOX/ICG, and GNP-DOX/ICG+laser, respectively.