## Two-stage Activated Nano-truck Enhanced Specific Aggregation and Deep Delivery for Synergistic Tumor Ablation

Ziliang Zheng<sup>1</sup><sup>a</sup>, Qi Chen<sup>1</sup><sup>a</sup>, Shuo Rong<sup>1</sup><sup>a</sup>, Rong Dai<sup>c</sup>, Zhuo Jia<sup>c</sup>, Xiaoyang Peng<sup>a</sup>, and Ruiping Zhang \*<sup>b</sup>

<sup>a</sup> Department of biochemistry and molecular biology, Shanxi Medical University, Taiyuan 030001, China.

<sup>b</sup> The Affiliated Da Yi Hospital of Shanxi Medical University, Taiyuan 030032, China

<sup>c</sup> College of Chemistry and Chemical Engineering, Taiyuan University of Technology, Taiyuan 030024, China.

\* Corresponding authors. zrp\_7142@sxmu.edu.cn (R. Zhang).

<sup>1</sup> These authors contributed equally to this work.

## **Supporting Figures**

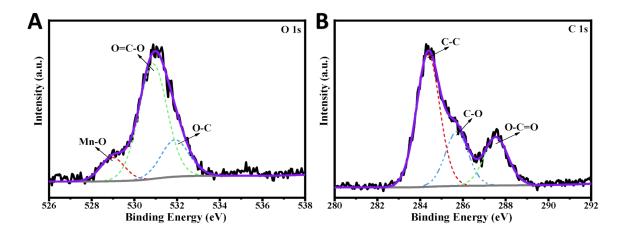


Figure S1. A) O 1s XPS spectra and B) C 1s XPS spectra of BMP NTs.

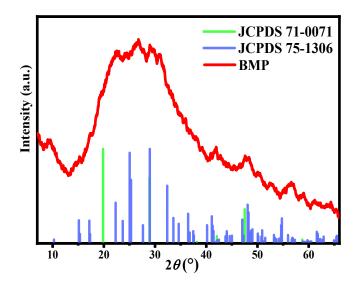


Figure S2. XRD pattern of the BMP NTs.

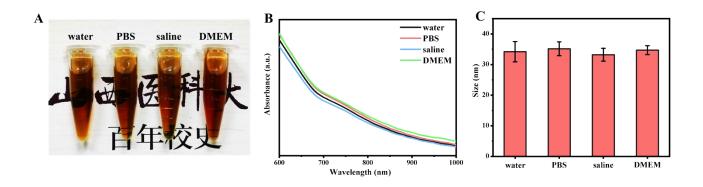
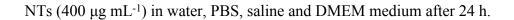


Figure S3. A) Digital photos, B) UV-vis absorption spectra and C) hydrodynamic sizes of BMP



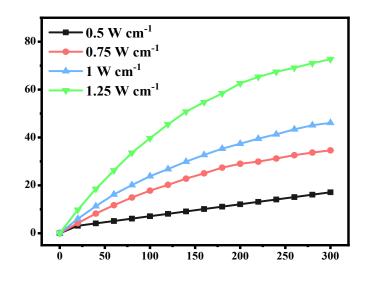


Figure S4. Temperature elevation of the aqueous dispersion with the same concentration of BMP

NTs (400  $\mu$ g mL<sup>-1</sup>) at different laser power densities.

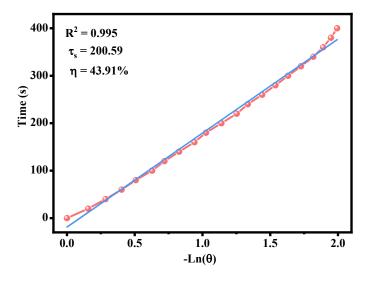
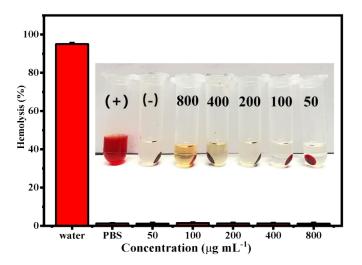
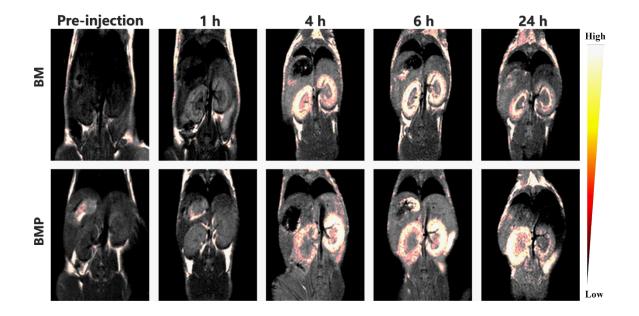


Figure S5. Linear time data versus  $-\ln(\theta)$  obtained from the cooling period of the laser off. (808 nm, 1 W cm<sup>-2</sup>)



**Figure S6.** Hemolysis test of red blood cells treated with the BMP NTs at various concentrations for 4 h. Water and PBS as positive and negative control, respectively.



**Figure S7.** In vivo T1-weighted MRI images of kidneys on mice before and after i.v. injection with BMP or BM.

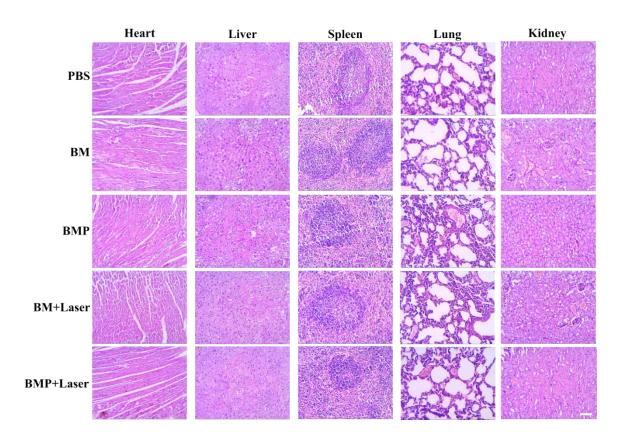


Figure S8. H&E-stained images of major organs collected from mices at the end of treatment; bars represent  $100 \ \mu m$ .