

# Supporting Information

## Vascular Interventional Radiology Guided Photothermal Therapy of Colorectal Cancer Liver Metastasis with Theranostic Gold Nanorods

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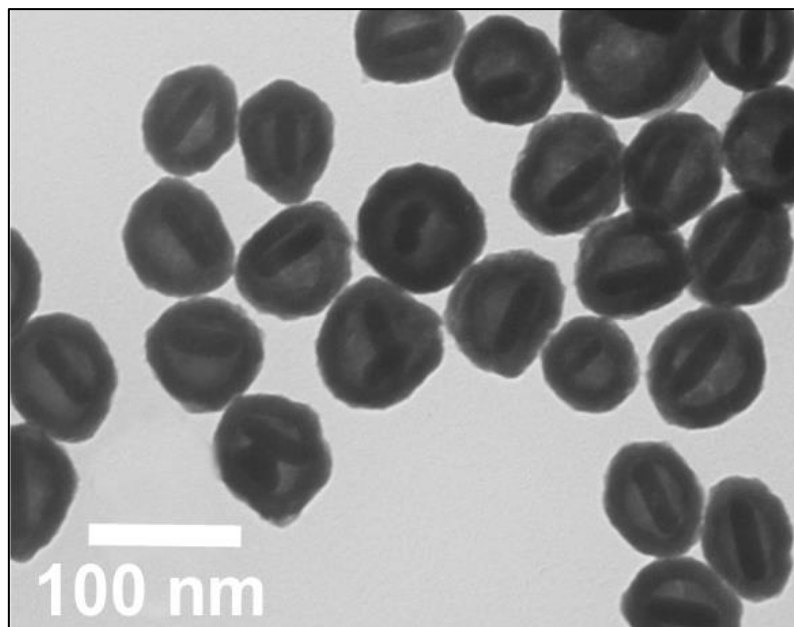
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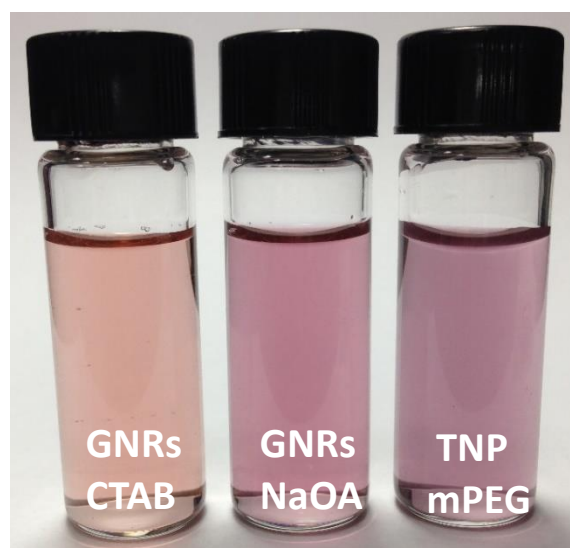
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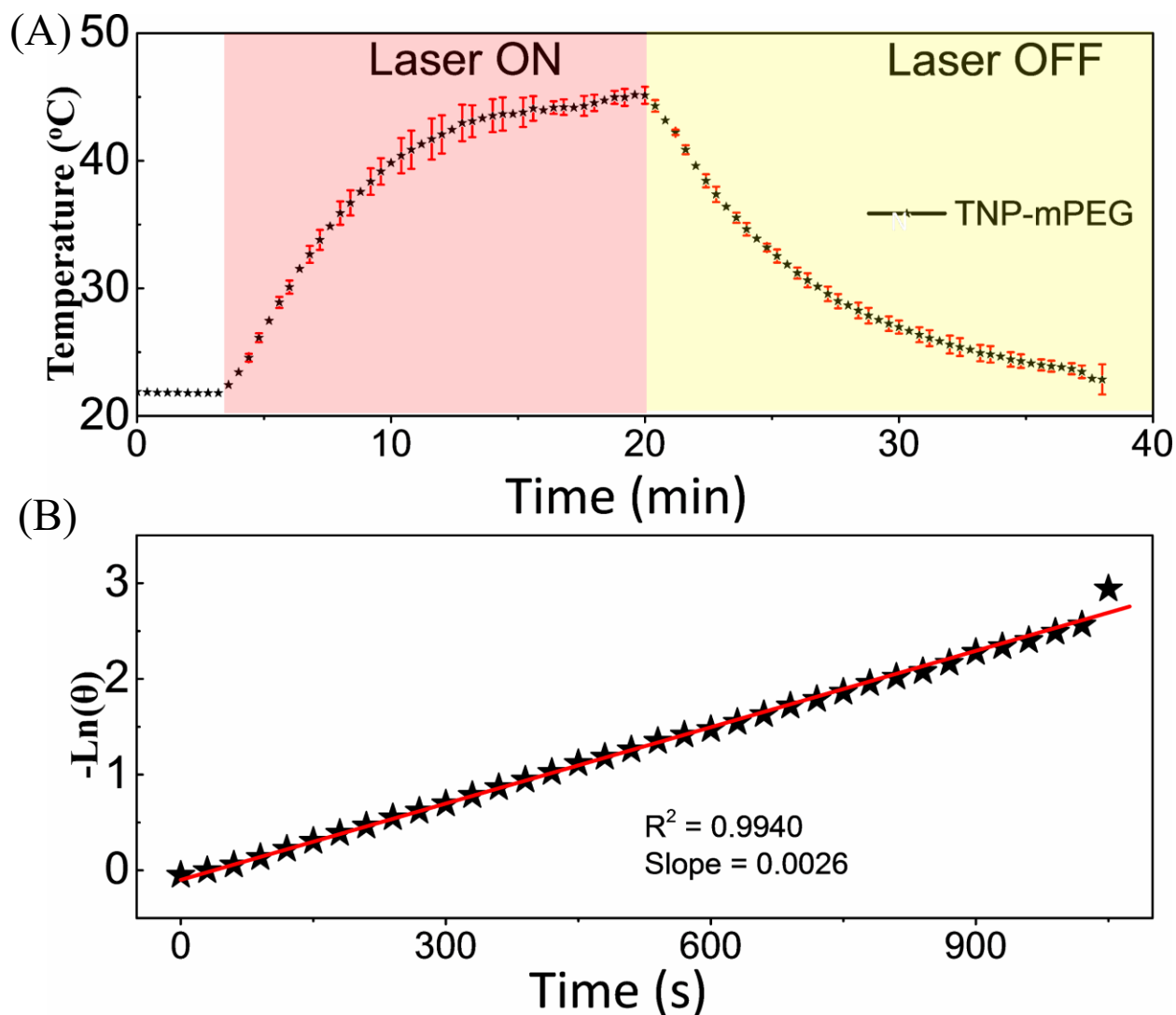
**KEYWORDS:** *colorectal cancer liver metastasis, image-guided interventional therapy, laser ablation, MR contrast, x-ray contrast, gold nanorods*



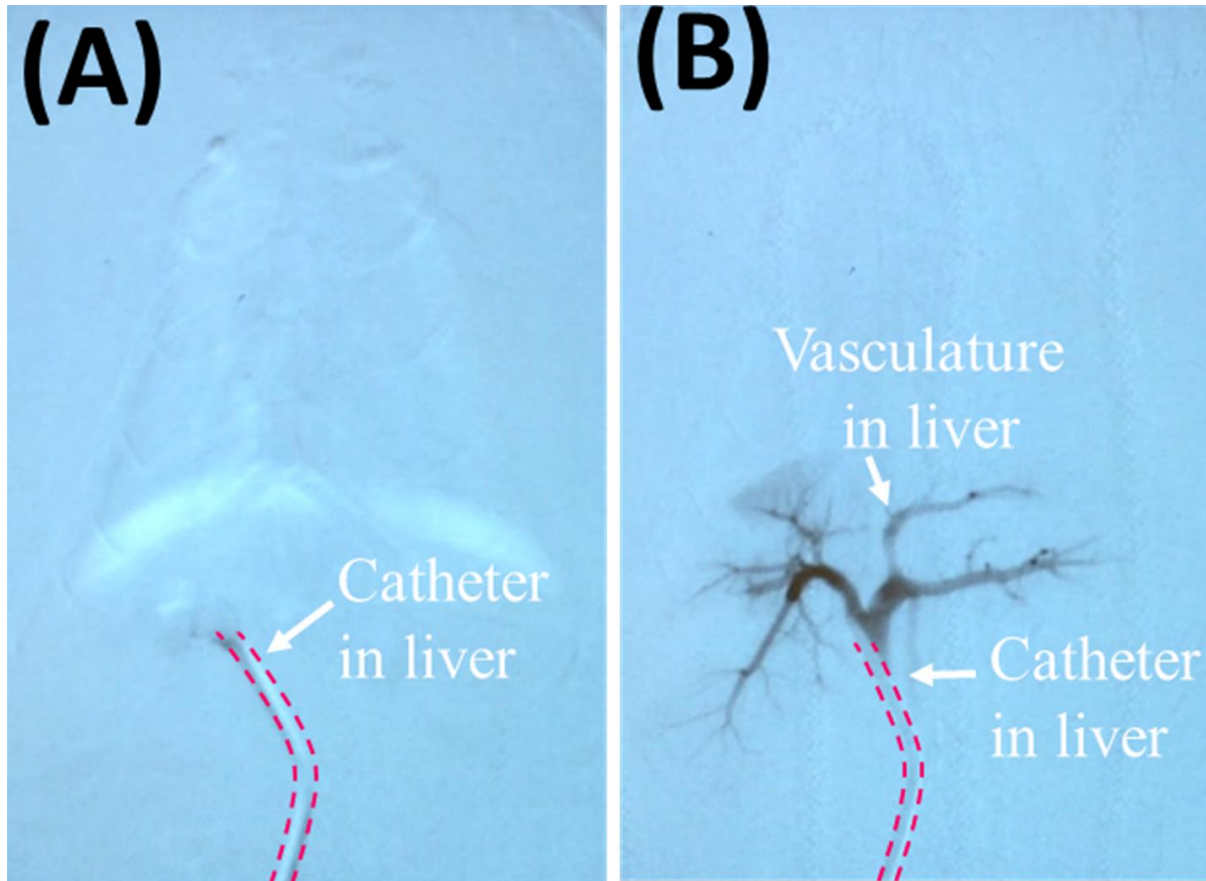
**Figure S1.** Transmission electron microscopy image of TNPs.



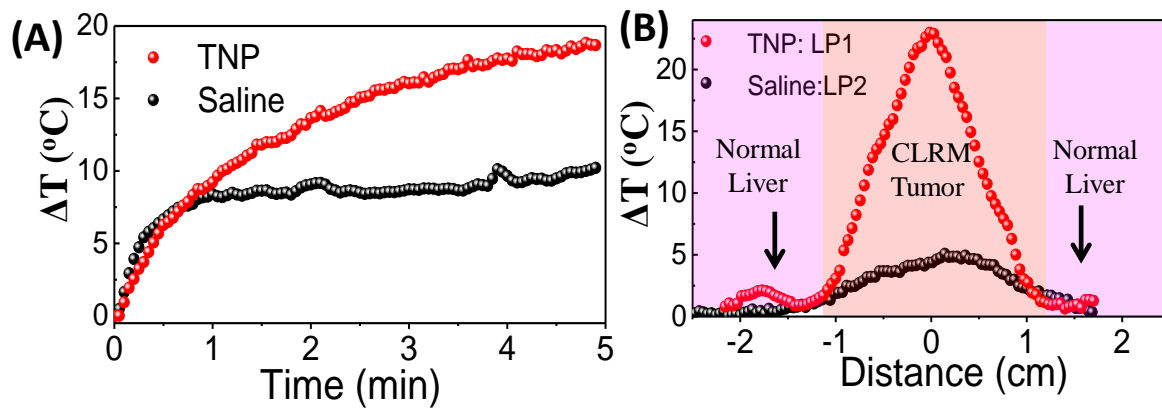
**Figure S2.** Digital photographs of aqueous solutions of GNRs-CTAB, GNRs-NaOA, and TNP-mPEG with concentration  $\sim 10^{11}$  NP/mL dispersed in water



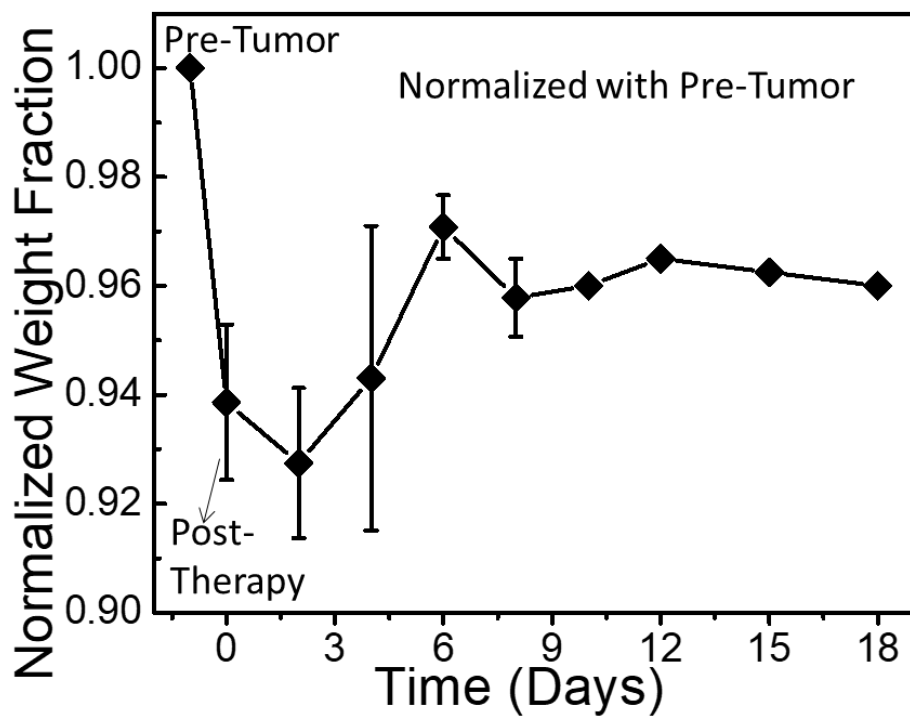
**Figure S3.** (A) Temperature kinetics of TNP-mPEG, OD=0.3, I=700 mW/cm<sup>2</sup> (n =3). (B) Natural log of [(T(t) – T<sub>0</sub>)/(T<sub>m</sub> – T<sub>0</sub>)] vs time of cooling temperature kinetics (Laser OFF).



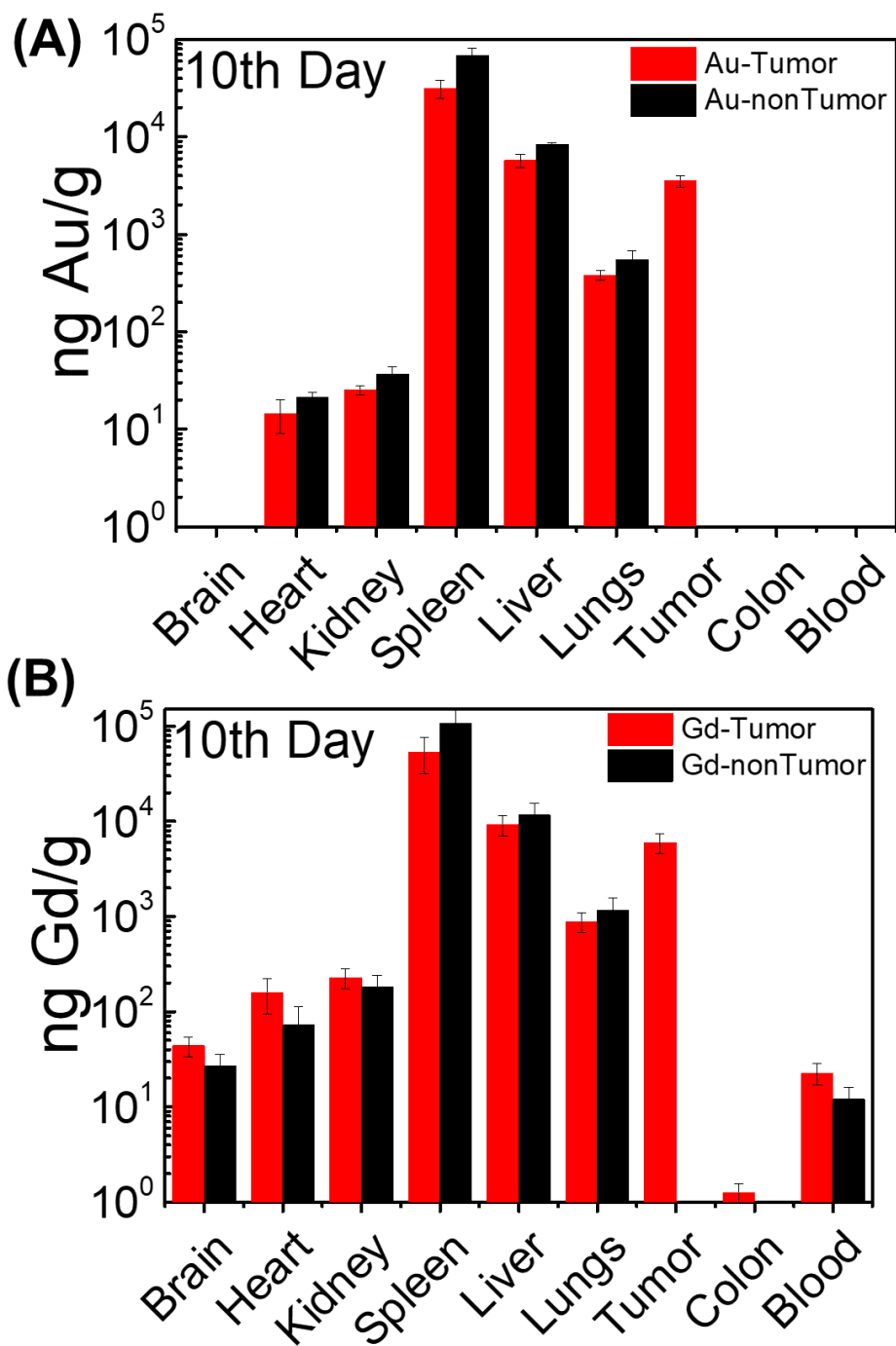
**Figure S4.** (A) Placing catheter in to liver of rat and (B) an arterial injection of 1-mL of Omnipaque in the hepatic artery to confirm the liver vessel structure and catheter placement using C-Arm (GE OEC 800, GE Healthcare, Waukesha, WI) fluoroscopic guidance and administration of TNPs.



**Figure S5.** (A) Temperature kinetics of CRLM tumor at  $0.5 \text{ W/cm}^2$  NIR laser irradiations for both Saline and TNPs hepatic portal vein injection. (B) Temperature line profile across the tumor.



**Figure S6.** Change in weight fraction CRLM rat after therapy.



**Figure S7.** Accumulation Au/Gd in major organs of the rats at 10th Day of TNPs Post- systemic administration in both CRLM tumor (n = 6 rats/group) and non-tumor (n = 3 rats/group) bearing rats (error bars represents mean  $\pm$  SEM) on log scale.