## **Supporting Information**

for

## Mesoporous Silica Nanoparticles Doped with Gold

## Nanoparticles for Combined Cancer

## Immunotherapy and Photothermal Therapy

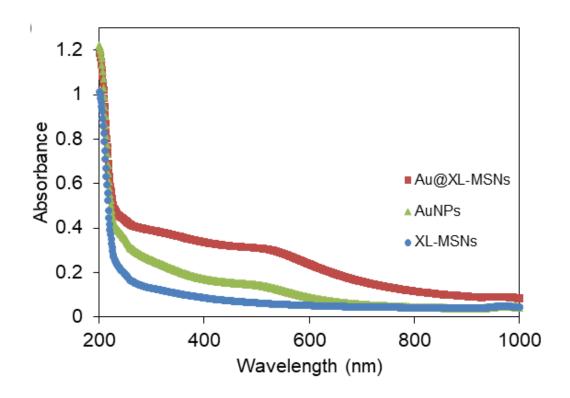
Chunwei Ong<sup>1</sup>, Bong Geun Cha<sup>1</sup>, and Jaeyun Kim<sup>1,2,3\*</sup>

<sup>1</sup>School of Chemical Engineering, Sungkyunkwan University (SKKU), Suwon 16419, Republic of Korea

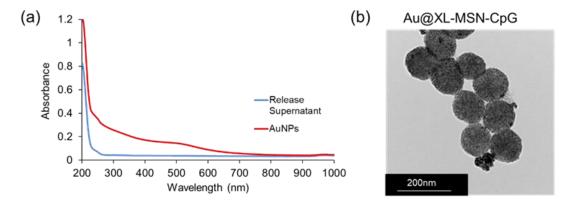
<sup>2</sup>Department of Health Sciences and Technology Samsung Advanced Institute for Health Sciences & Technology (SAIHST), Sungkyunkwan University (SKKU), Suwon 16419, Republic of Korea

<sup>3</sup>Biomedical Institute for Convergence at SKKU (BICS), Sungkyunkwan University (SKKU) Suwon 16419, Republic of Korea

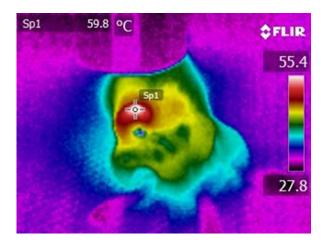
\*To whom correspondence should be addressed: Jaeyun Kim, kimjaeyun@skku.edu Telephone: +82-31-290-7252. Fax: +82-31-290-7272



**Figure S1.** Absorbance spectra of AuNPs, XL-MSNs, and Au@XL-MSNs with a wavelength of 200 to 1,000 nm. Some absorbance at 800 nm occurred for Au@XL-MSNs.



**Figure S2**. (a) Absorbance spectrum of AuNPs and supernatant collected during CpG-ODNs release test for 72 h. (b) TEM image of Au@XL-MSN-CpG after 72 h of CpG-ODNs release test.



**Figure S3**. Heat map showing maximum temperature of photothermal therapy on tumor injected with Au@XL-MSN-CpG/PEG using 800 nm NIR laser (0.15 W).

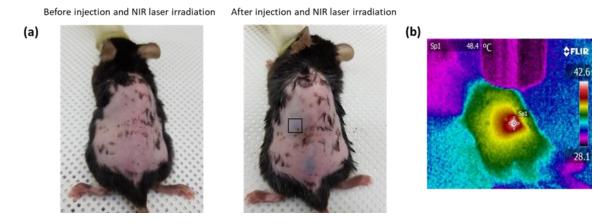


Figure S4. (a) Photos of mice before and after photothermal therapy. (b) Heat map of photothermal therapy.