

## Electronic Supplementary Information

# Enhanced Cell Up-taking of Fluorescent Drug-loaded Nanoparticles *via* an Implantable Photothermal Fibrous Patch for More Effective Cancer Cell Killing

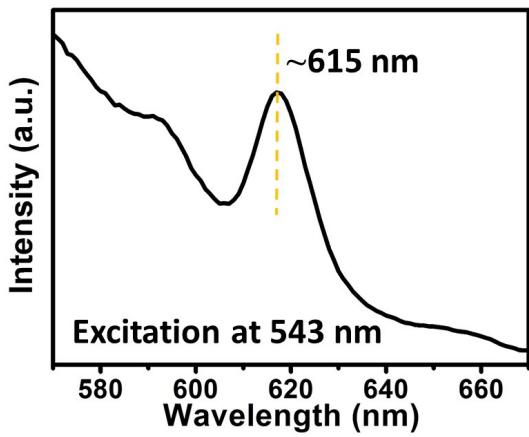
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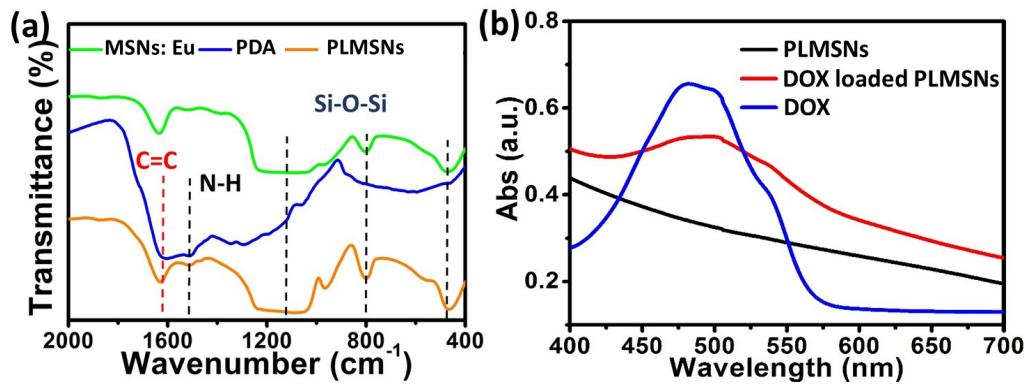
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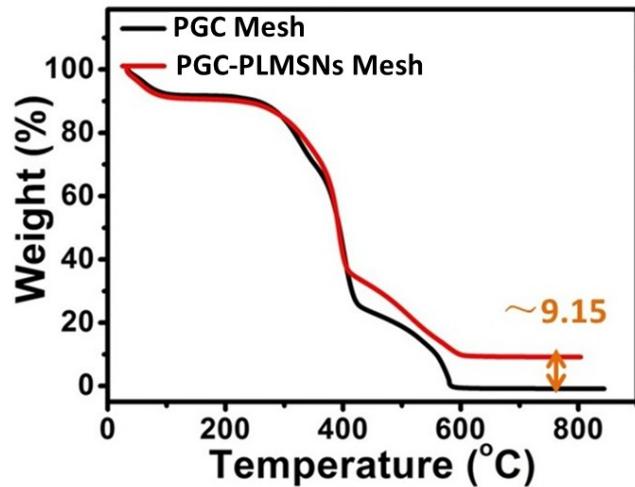
E-mail: cbmao@ou.edu



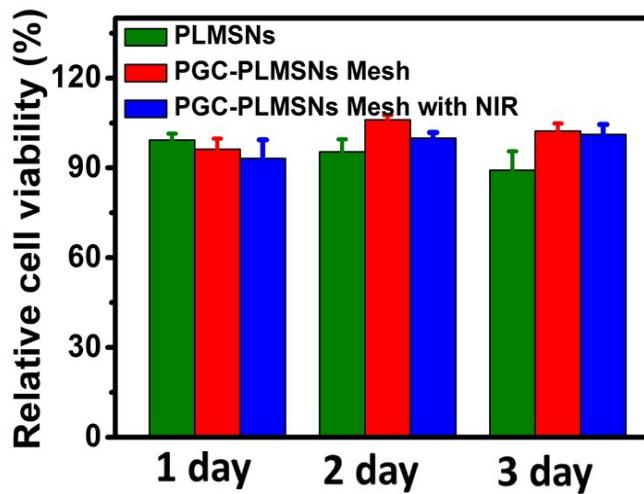
**Figure S1.** PL spectra of MSNs:Eu under 543 nm excitation.



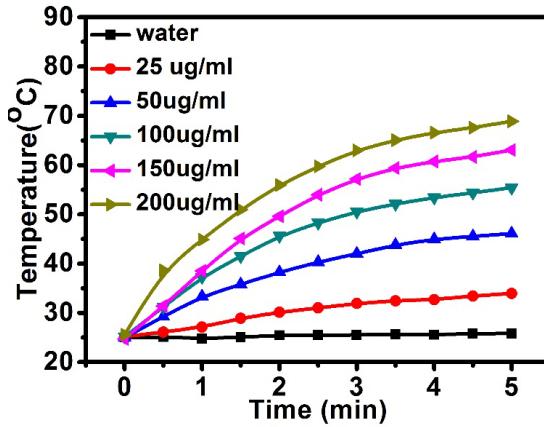
**Figure S2.** (a) FTIR spectra of MSNs:Eu, PDA and PLMSNs, (b) UV-vis spectra of pure DOX drug, PLMSNs before and after DOX loading.



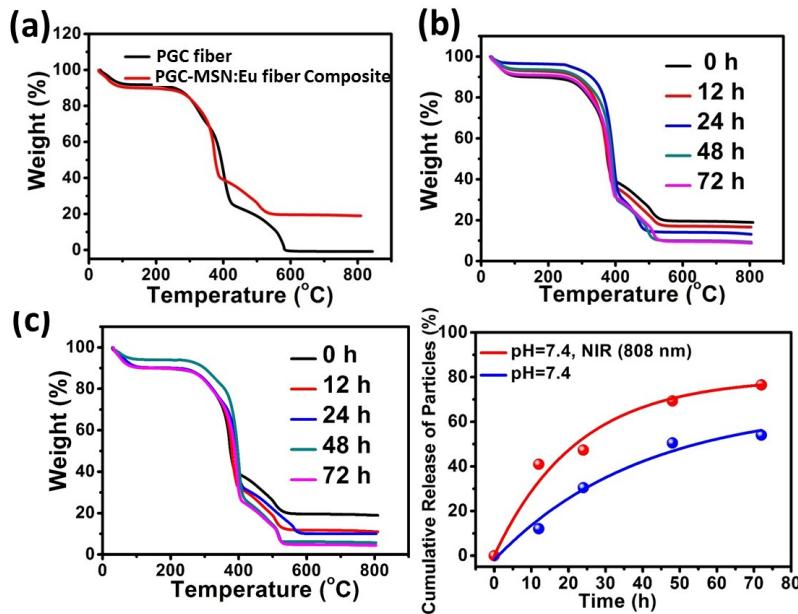
**Figure S3.** TG curves of PGC fibers and PGC-PLMSNs composite fibers.



**Figure S4.** Relative cell viability of NIH3T3 cells incubated with PLMSNs, PGC-PLMSNs composite meshes without and with NIR irradiation ( $0.6 \text{ W/cm}^2$ ) for 1, 2 and 3 days.



**Figure S5.** Temperature change curves of the carbon nanoparticles solutions, with different concentrations, exposed to the 808 nm laser at a power density of  $1.0 \text{ W/cm}^2$  for 5 min



**Figure S6** (a) The TG curves of PGC fibers and PGC- MSNs: Eu composite fibers, The TG curves of PGC-MSNs: Eu composite fibers as a function of release time (b) without (c) with NIR, (d) Cumulative particles release profiles from the PGC- MSNs: Eu composite fibers