

Figure S1. Cumulative release IR780 release from the PEG-HISP in PBS at 37°C was measured at each time point. Data represents the mean  $\pm$  S.E.; n = 3.



Fresh 28 days

Figure S2. Long-term storage stability (4°C) of PEG-HISP solutions.

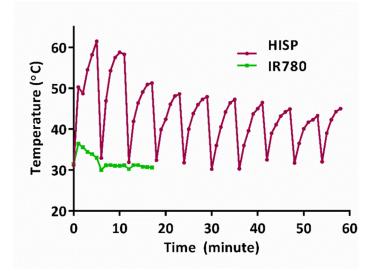


Figure S3. Temperature monitoring of free IR780 or HISP received repeated heating/cooling cycles. Data represents the mean  $\pm$  S.E.; n = 3.

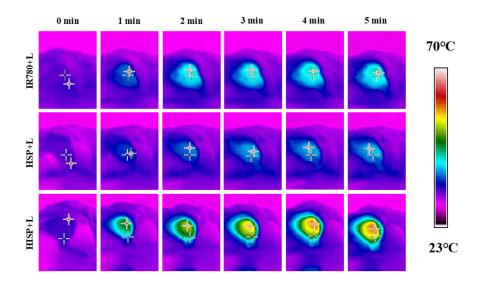


Figure S4. *In vivo* photothermal therapeutic efficacy of free IR-780, PEG-HSP or PEG-HISP. Each formulation was intravenously injected to the CT26 tumor-bearing mice. Twenty-four hours after injections, the mice were irradiated by a laser (808 nm, 1.0  $W/cm^2$ ) for 5 min. PEG-HISP groups showed much higher heating effect than free IR780 and PEG-HSP groups as observed using a thermal camera.

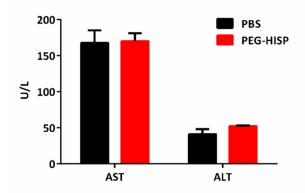


Figure S5. Liver function analysis. Both AST (aspartate transaminase) and ALT (alanine transaminase) levels were not significantly different between PEG-HISP-treated mice and control mice. Data represents the mean  $\pm$  S.E.; n = 2.