Electronic Supplementary Material (ESI) for Biomaterials Science.

Stabilization of Indocyanine Green Dye in Polymeric Micelles for Production of a Versatile Theranostic Platform.

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Supporting Information

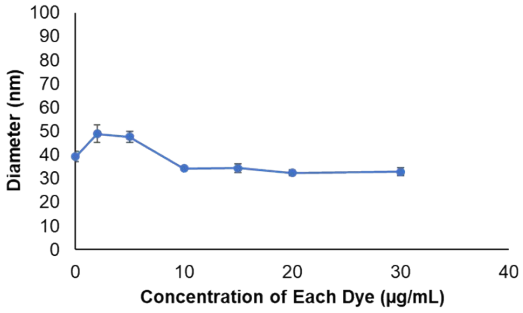

Fig. S1 Dependence of micelle size on dye concentration. Particle suspensions in DDW were measured with DLS.

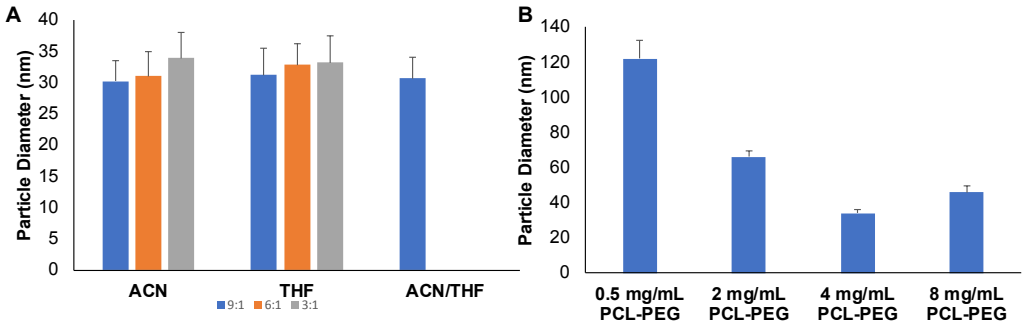

Fig. S2 A) Dependence of micelle size on organic solvent. The ratio indicated refers to water/solvent. B) Dependence of micelle size on PCL-PEG concentration. All sizes measured in water using DLS.

Table S1. Zeta potential of ICG, IR-1061, ICG + IR-1061 and empty micelles (IPM, IRPM, IIPM and EPM, respectively). Dye-loaded micelles were prepared with 10 µg/mL of each dye. All micelles were dispersed in either MES, PBS or Tris buffer with a pH of 5.5, 7.4 and 9.5, respectively. All values are given in mV.

Micelle Type	pH of Dispersion Buffer		
	5.5	**7.4**	**9.5**
IPM	-0.68 ± 2.55	-1.39 ± 2.47	-1.23 ± 1.89
IRPM	-0.54 ± 1.40	-1.16 ± 3.67	-3.45 ± 3.81
IIPM	-0.61 ± 2.85	-0.47 ± 2.12	-2.82 ± 3.30
EPM	-0.30 ± 0.57	-0.38 ± 1.59	-2.48 ± 4.33

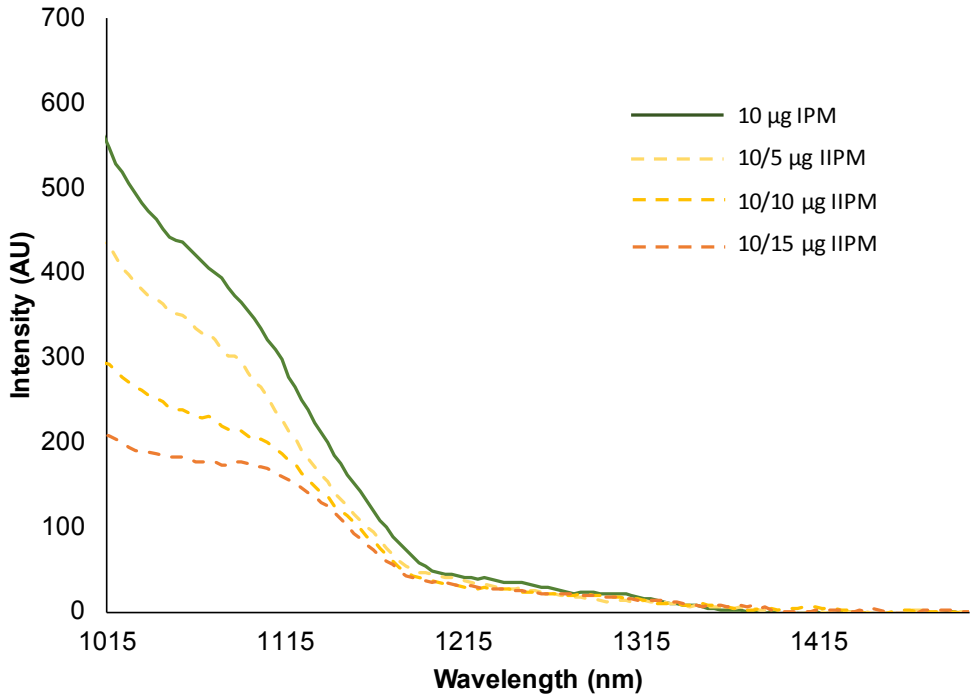

Fig. S3 Change in emission as more IR-1061 is added to ICG PCL-PEG micelles (IPM). Excitation with 808 nm laser (2 W/cm^2).

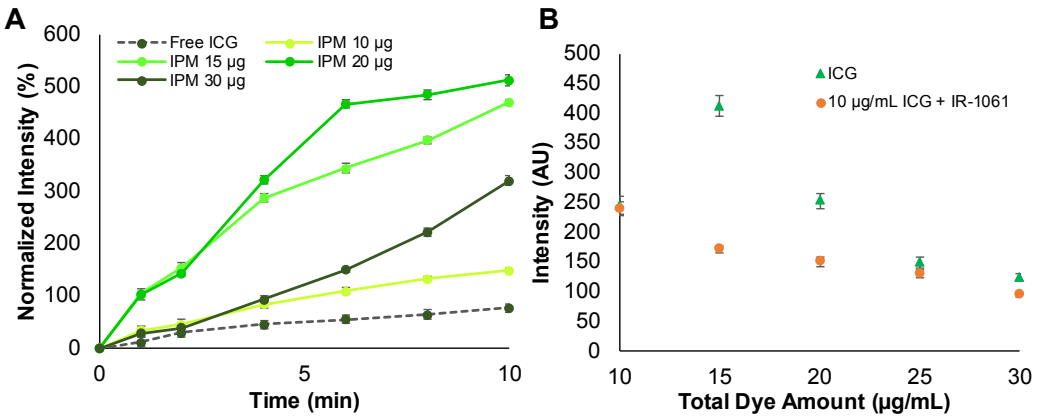

Fig. S4 A) Effect of ICG addition on singlet oxygen generation. Samples were irradiated at 808 nm (2.8 W/cm^2) with SOSG and fluorescence of indicator was evaluated at different time intervals. Legend displays the amount of ICG in micelles. B) Fluorescent quenching in micelles by addition of either ICG or IR-1061. Excitation was done with 808 nm laser (2 W/cm^2).

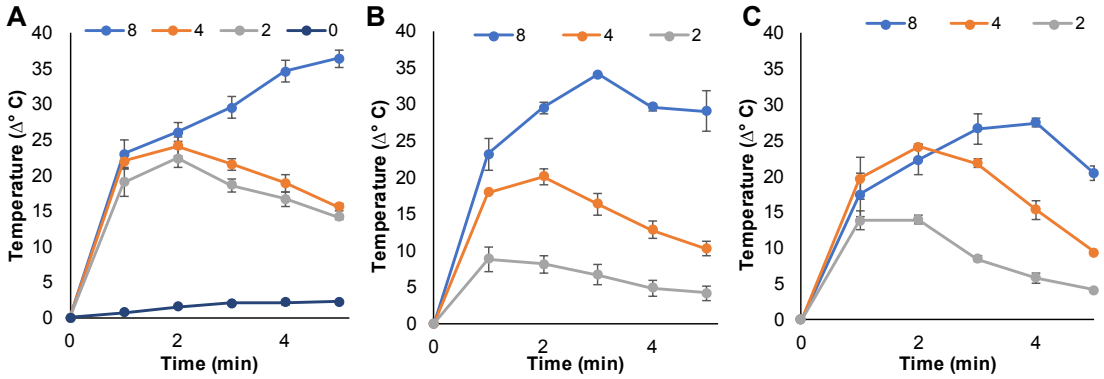

Fig. S5 Photothermal effect of IIPM, IPM and ICG (A, B and C, respectively) with different concentrations of dye. In the case of IPM and IIPM, micelles were prepared with 10 µg/mL ICG with an equal amount of IR-1061 used for the latter.

Fig. S6 Cytotoxicity of non-irradiated IIPM and IPM towards MCF7 cells. Cells were incubated with the micelles for 24 h and their survival rate was compared to that of non-treated ones.