

Hybrid of Gold Nanostar and Indocyanine Green for Targeted Imaging-guided Diagnosis and Phototherapy Using Low-density Laser Irradiation

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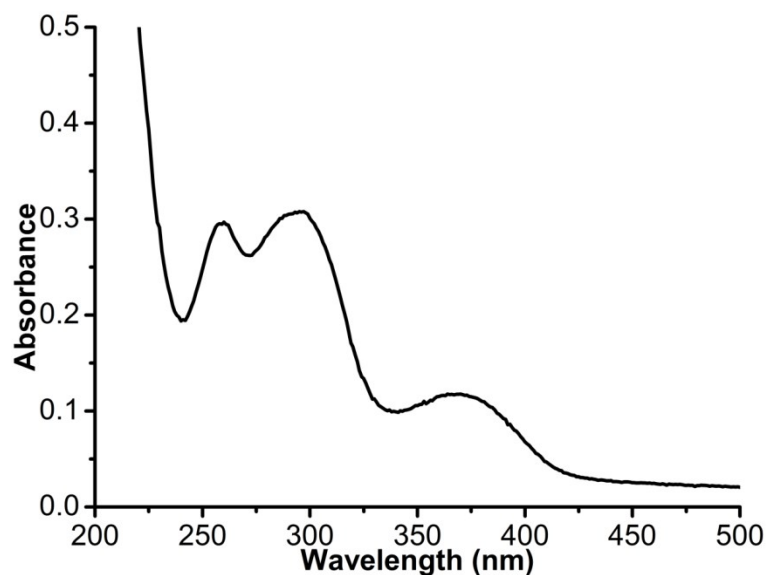


Fig. S1 UV-Vis absorbance spectrum of the purified FA-PEI.

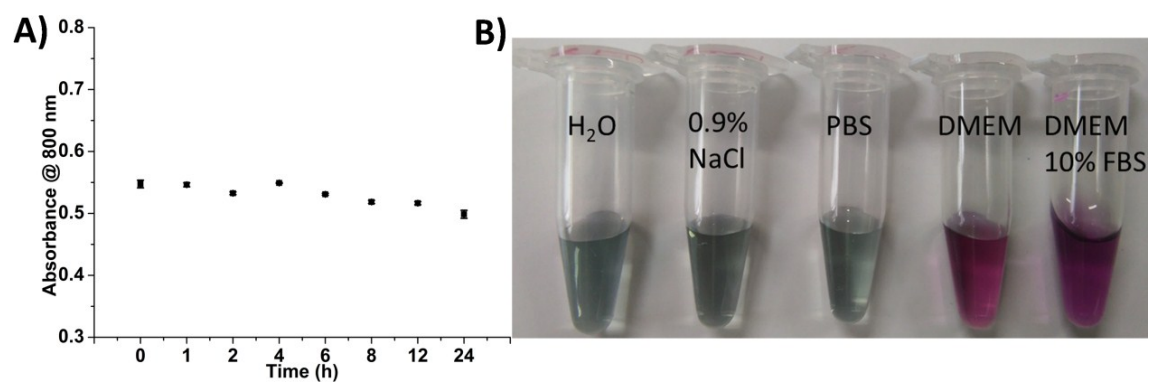


Fig. S2 Stability of APP and APP-ICG in different solution. A) The absorbance at 800 nm of APP in each time point after being dissolved in PBS. B) Digital images of APP-ICG dissolved into H₂O, 0.9% NaCl, PBS, DMEM and DMEM+10% FBS.

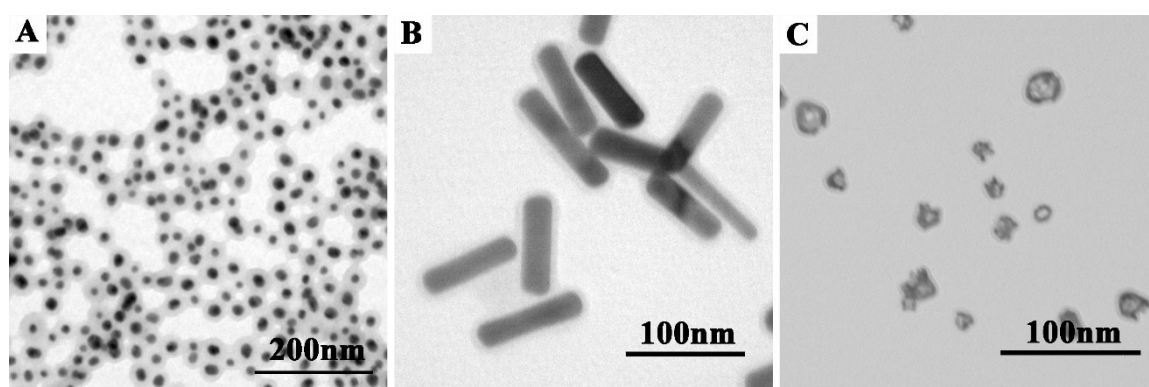


Fig. S3 TEM of polydopamine-coated gold nanosphere (A), gold nanorod (B) and gold nanoshell (C).

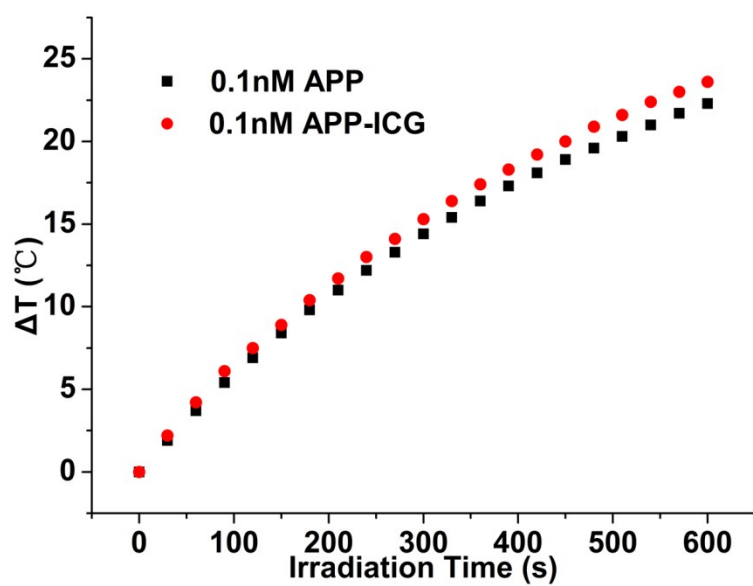


Fig. S4 Temperature measurement of 0.1 nM APP and 0.1 nM APP-ICG solution at laser power of 0.33 W/cm².

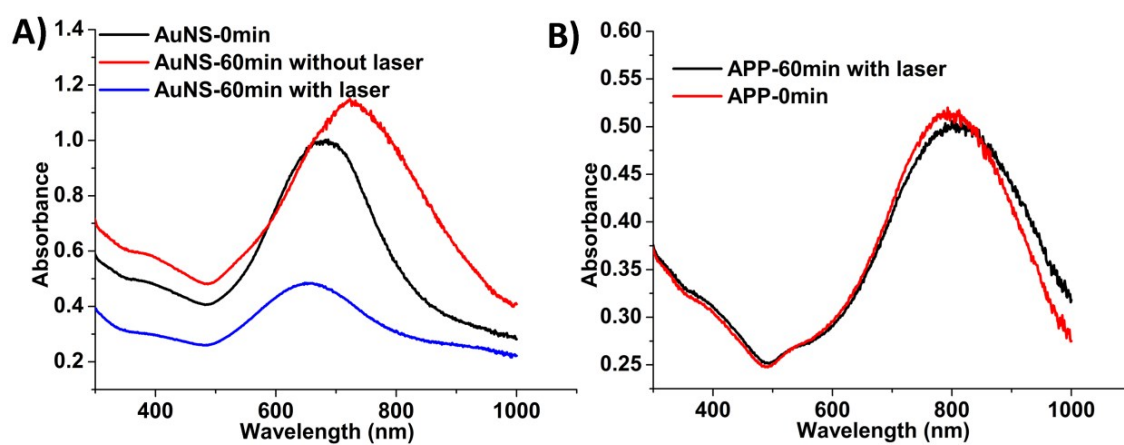


Fig. S5 UV-Vis-NIR absorbance spectra of A) AuNS, 60 minutes after preparation of with and without laser irradiation. B) APP and 60 minutes after laser irradiation.

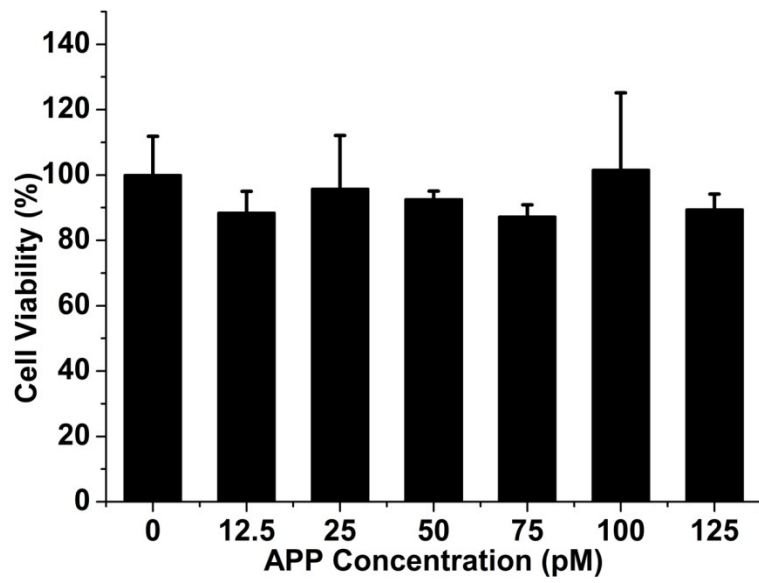


Fig. S6 Cell viability of MCF-7 cells incubated in different concentrations of APP.

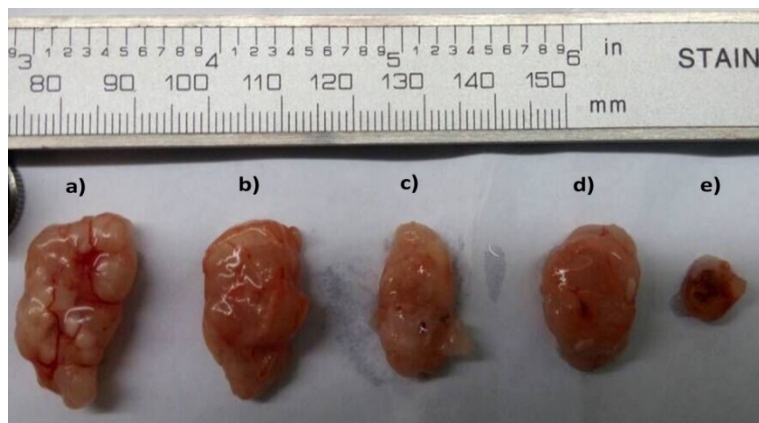


Fig. S7 Representative tumor size at the 14th day of different groups: a) PBS+0.33 W/cm², b) APP-ICG, c) ICG+0.33 W/cm², d) APP+0.33 W/cm², and e) APP-ICG+0.33 W/cm²

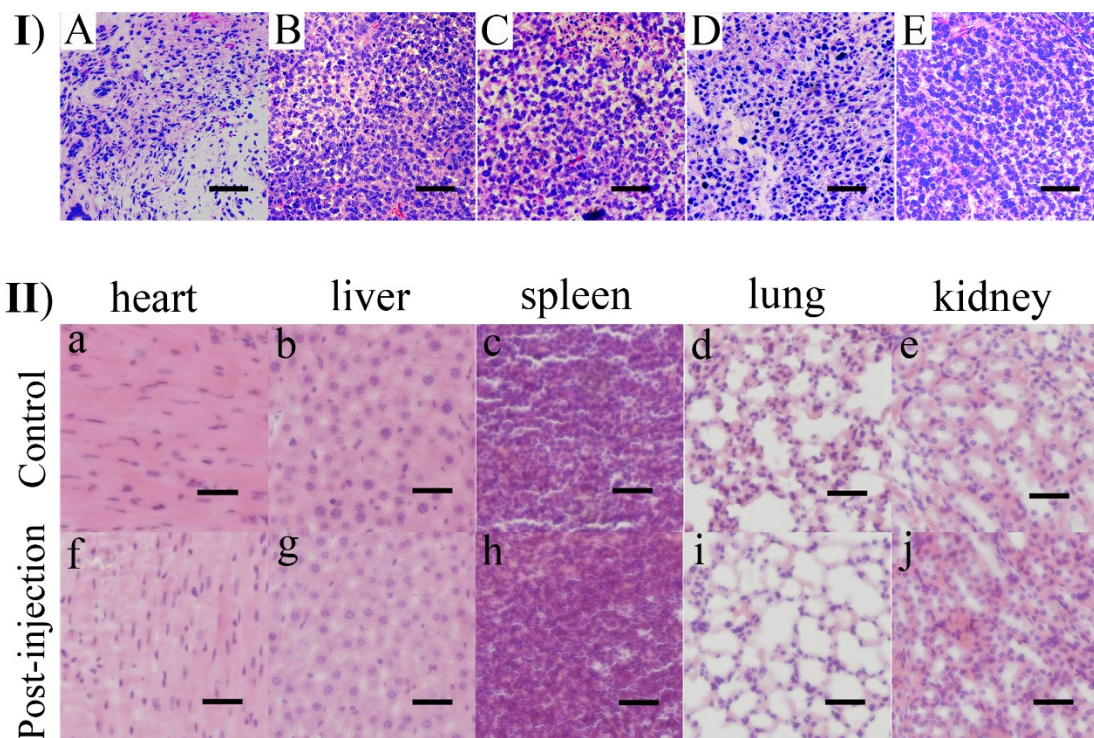


Fig. S8 Representative images of H&E staining of I) the tumor tissues treated with A) APP-ICG+0.33 W/cm², B) APP+0.33 W/cm², C) ICG+0.33 W/cm², D) APP-ICG and E) PBS+0.33 W/cm², and II) heart, liver, spleen, lung and kidney treated by APP-ICG. Images of a) to e) stand for control group, and f) to j) are the post-injection group. The scale bars are 50 μ m.