Eelectronic Supplementary Information (ESI)

Cancer Cell Membrane-Coated Magnetic Nanoparticles for MR/NIR Fluorescence Dual-Modal Imaging and Photodynamic Therapy

Jiong Li,[ac] Xuandong Wang,[c] Dongye Zheng,[ac] Xinyi Lin,[bd] Zuwu Wei,[bd] Da Zhang,[bd] Zhuanfang Li,[e] Yun Zhang,[c] Ming Wu,[*abd] and Xiaolong Liu[*abc]

[a]School of Life Sciences, Fujian Agriculture and Forestry University, Fuzhou 350002, P.R. China.

[b]The United Innovation of Mengchao Hepatobiliary Technology Key Laboratory of Fujian Province, Mengchao Hepatobiliary Hospital of Fujian Medical University, Fuzhou 350025, P.R. China.

[c]Key Laboratory of Design and Assembly of Functional Nanostructures, Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences, Fuzhou 350002, P.R. China.

[d]The Liver Center of Fujian Province, Fujian Medical University, Fuzhou 350025, P.R. China.

*Corresponding Authors (correspondence should be address to Ming Wu and Xiaolong Liu), E-mail addresses: wmmj0419@163.com, xiaoloong.liu@gmail.com

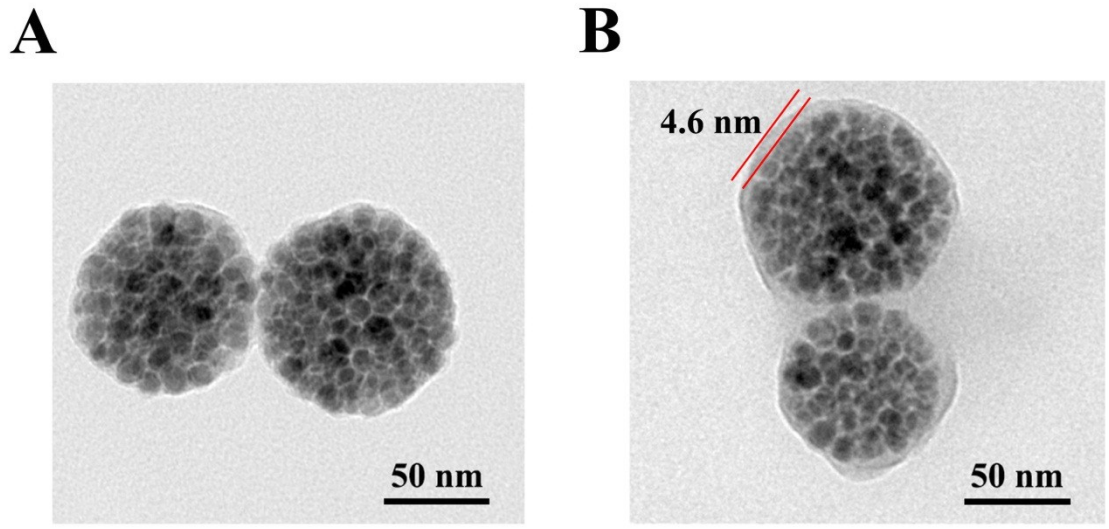

Figure S1. Enlarged TEM images of (A) SSAP-Ce6 and (B) SSAP-Ce6@CCM.

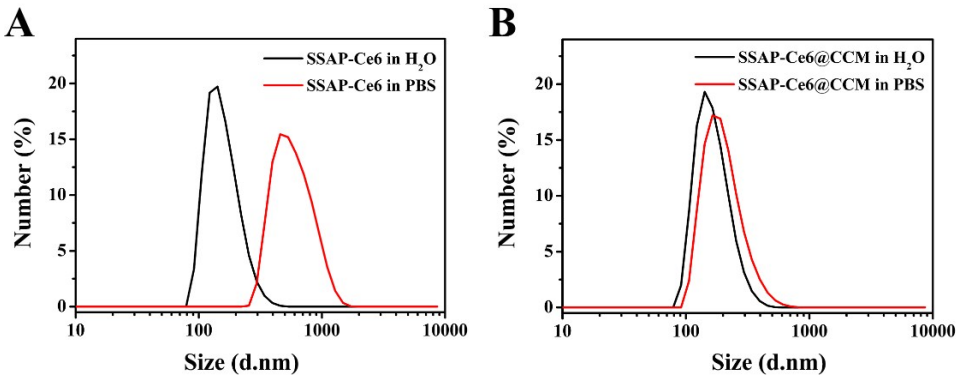

Figure S2. Size distributions of SSAP-Ce6 (A) and SSAP-Ce6@CCM (B) in H_2O or PBS.

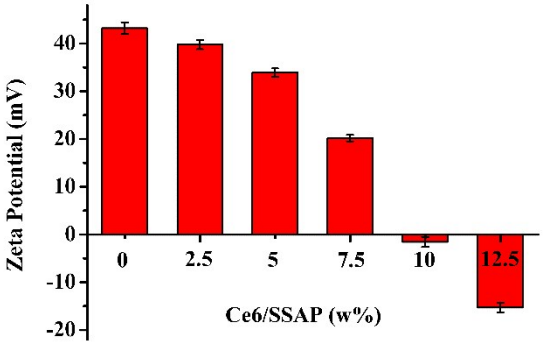

Figure S3. Zeta potential of the SSAP-Ce6 at different Ce6/SSAP weight ratio.

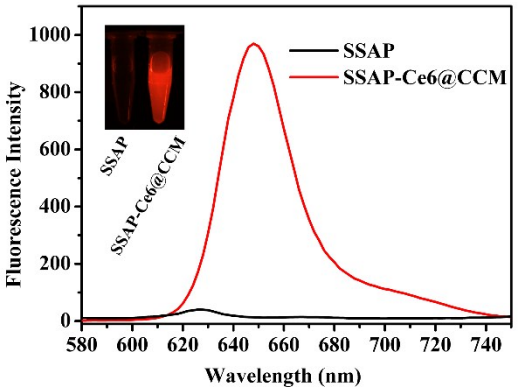

Figure S4. The fluorescence spectra of the SSAP and SSAP-Ce6@CCM. The inset shows NIR fluorescence images of SSAP and SSA-Ce6@CCM.

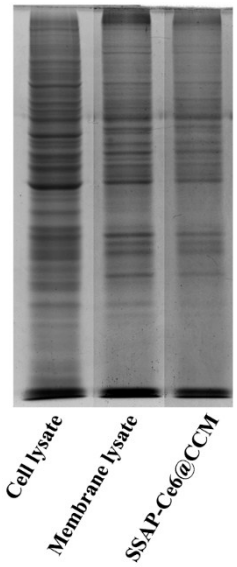

Figure S5. SDS-PAGE analysis of cell lysate, membrane lysate, and SSAP-Ce6@CCM lysate. Samples were stained with Coomassie blue.

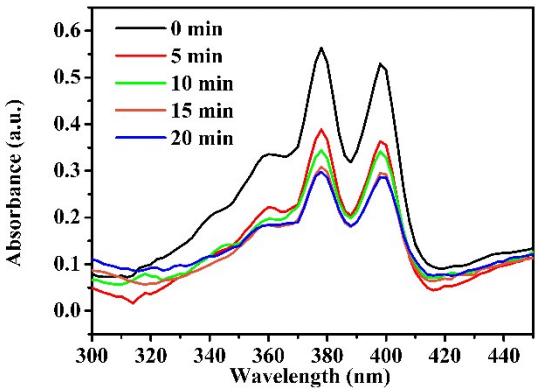

Figure S6. Absorbance of 9,10-dimethylanthracene (ABDA, 10mM) after photodecomposition by ROS generation upon 670 nm NIR laser irradiation for different times with 0.1W/cm^2 in the presence of SSAP-Ce6.

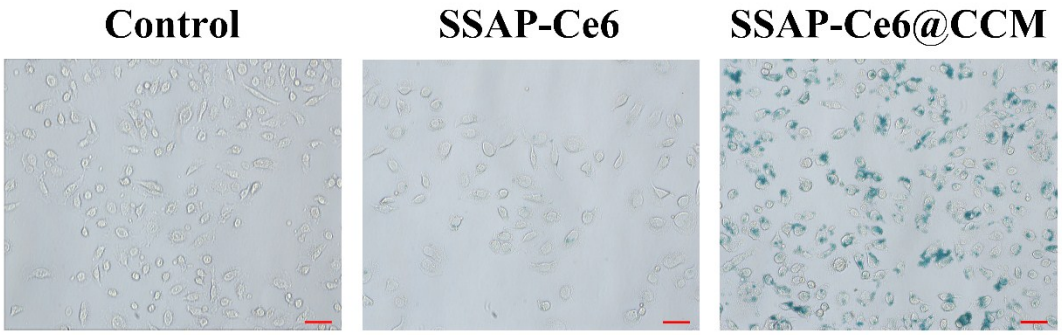

Figure S7. Prussian blue staining of the SMMC-7721 cells after 4 h incubation with SSAP-Ce6 and SSAP-Ce6@CCM, untreated cells were taken as control. Scale bar = 50 μm.

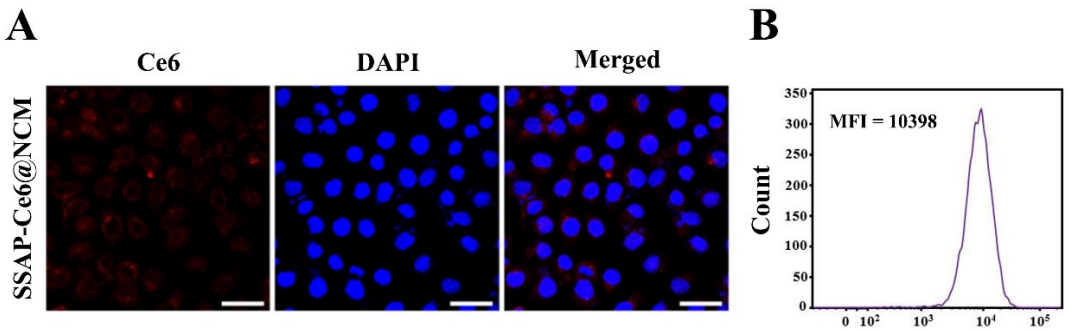

Figure S8. (A) CLSM images of SMMC-7721 cells upon 4 h incubation with SSAP-Ce6@NCM. Scale bar = 40 μm. (B) Flow cytometry analysis of Ce6 fluorescence inside cells after 4 h incubation with SSAP-Ce6@NCM.