
Supporting Information

of

Self-Delivery Photo-Immune Stimulators for Photodynamic Sensitized Tumor
Immunotherapy

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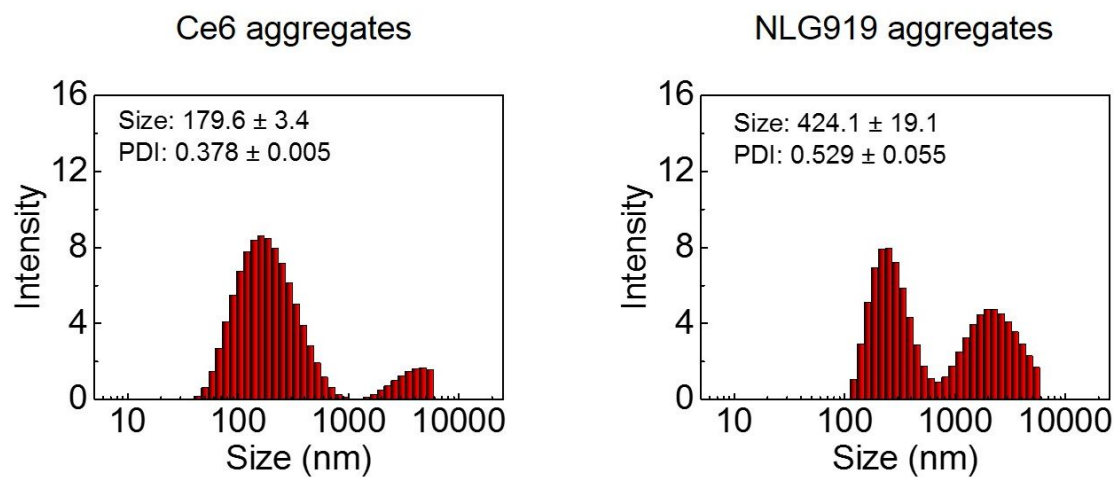


Figure S1. Particle size distributions of Ce6 and NLG919 solutions.

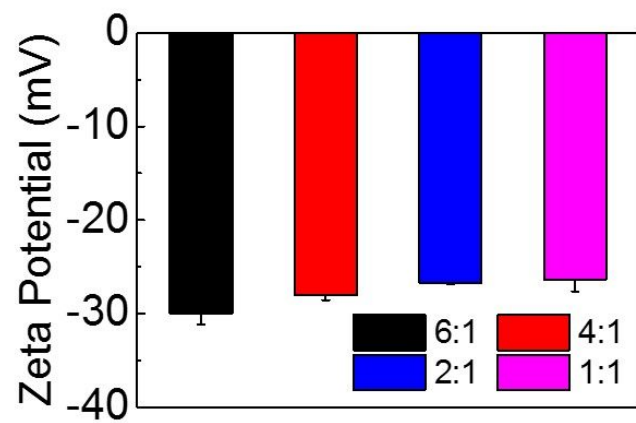


Figure S2. Zeta potential of the self-assembled nanomedicine with various feed ratios.

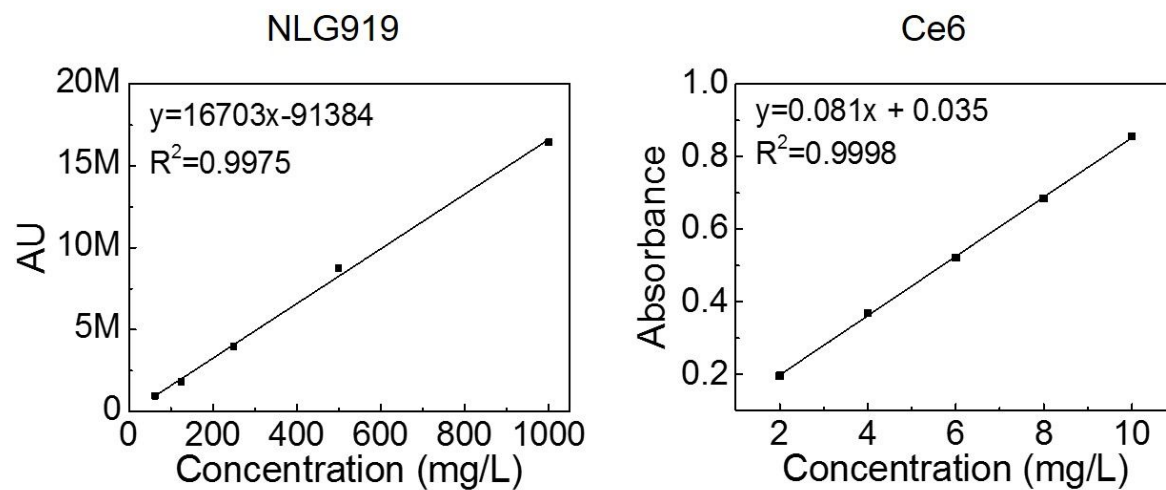


Figure S3. The standard curves of NLG919 and Ce6 measured by HPLC and UV-vis.

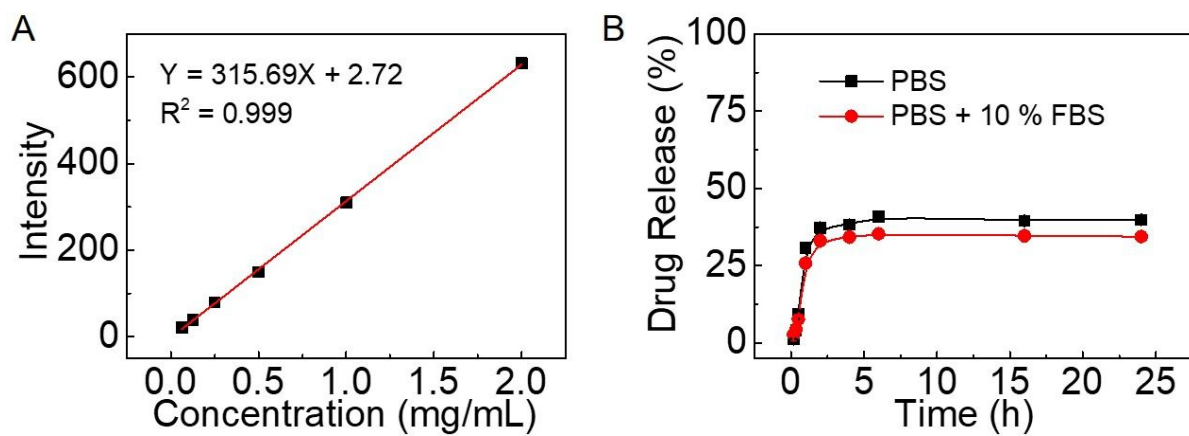


Figure S4. The standard curve of Ce6 and the drug release behaviors of iPSs in PBS in the presence or absence of FBS (10 %, v/v).

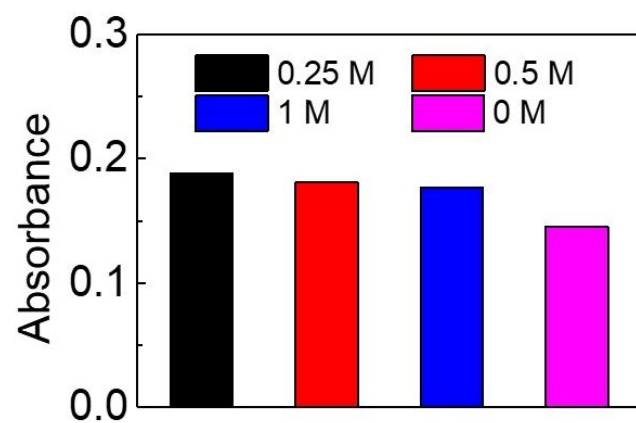


Figure S5. The UV-vis absorbance of iPSs with various concentrations of NaCl.

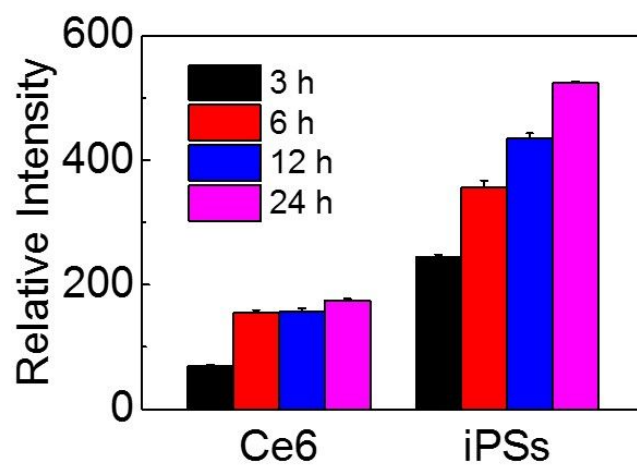


Figure S6. Cellular uptake behaviors of CT26 cells after treatment with iPSs or equivalent concentration of Ce6.

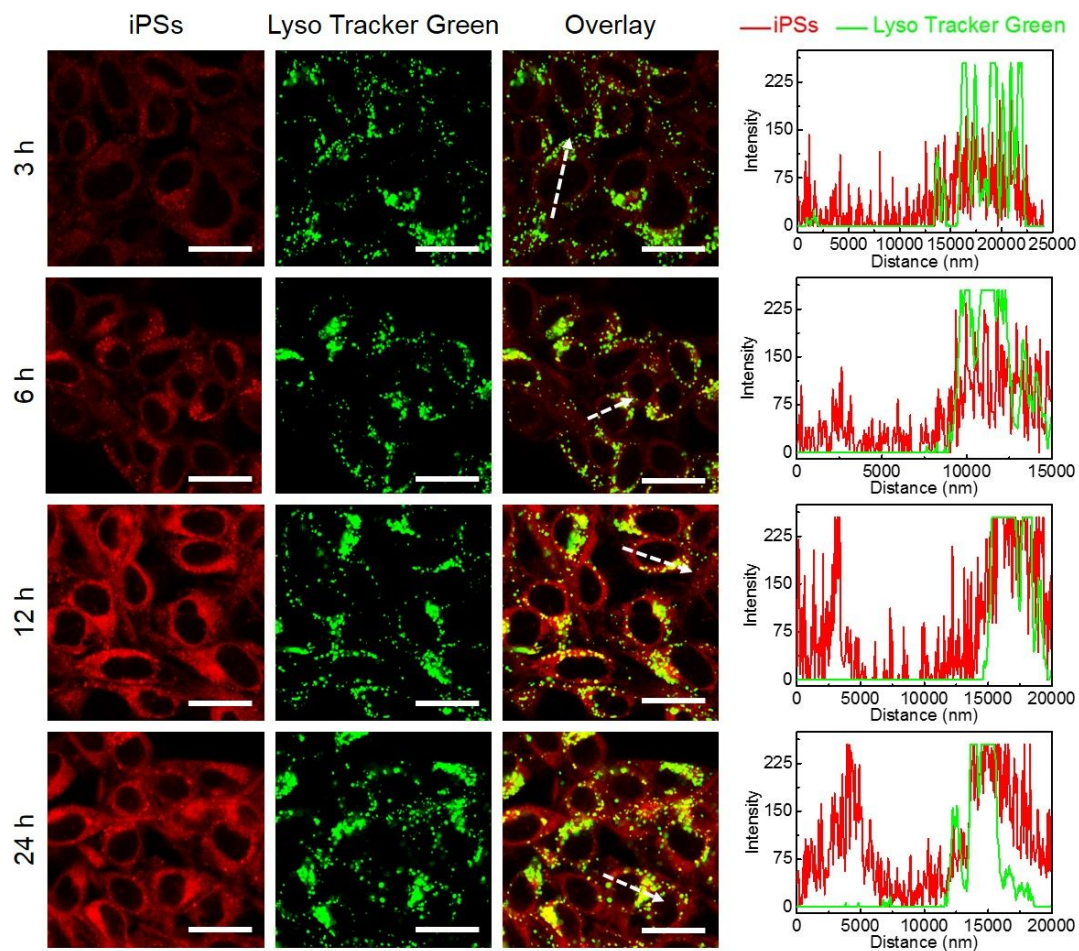


Figure S7. CLSM images and fluorescence intensity profile analysis of CT26 cells after treatment with iPSs for 3 h, 6 h, 12 h, or 24 h and stained by LysoTracker Green. Scale bar: 20 μm .

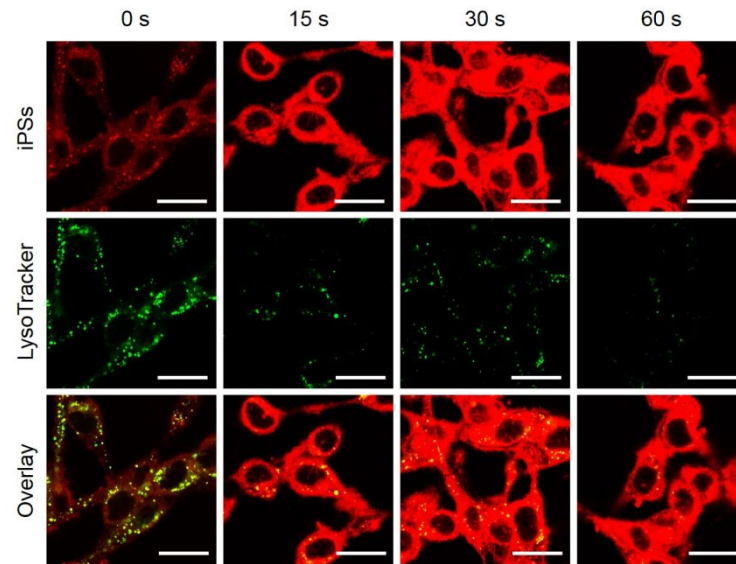


Figure S8. CLSM images of CT26 cells after treatment by iPSs with various irradiation time (0 s, 15 s, 30 s, 60 s). The cells were stained by LysoTracker Green. Scale bar: 20 μ m.

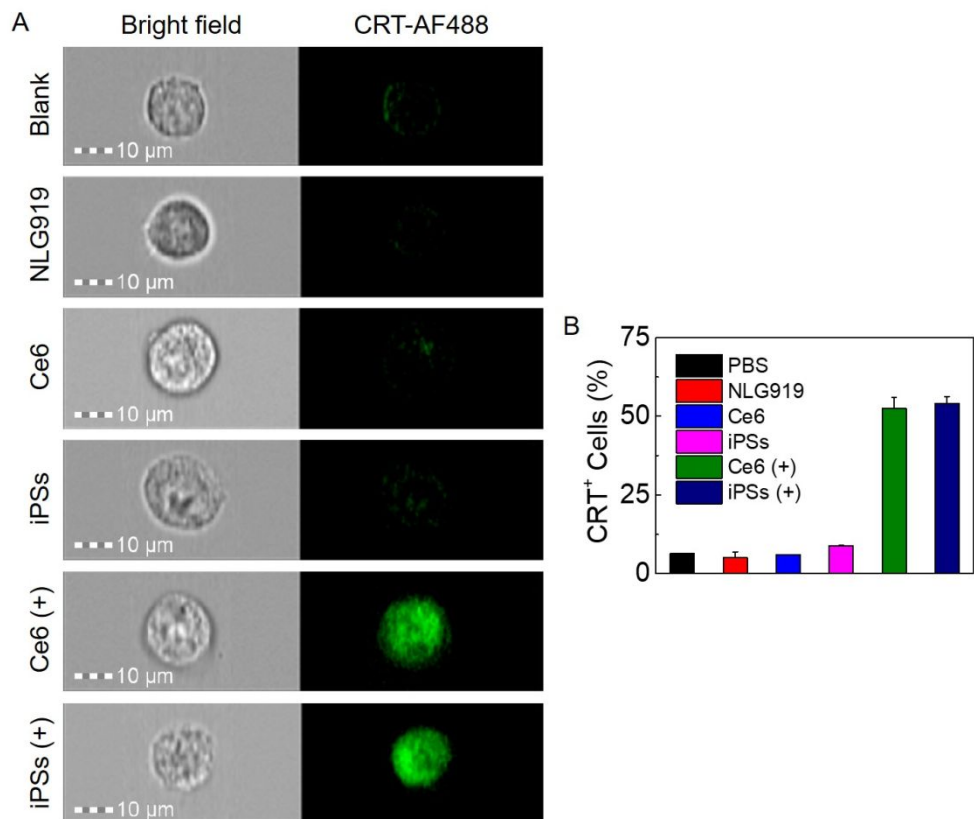


Figure S9. (A) Real time flow cytometry imaging and (B) flow cytometry analysis of the percentage of CRT⁺ cells after treatment with NLG919, Ce6 or iPSs in the presence or absence of light irradiation.

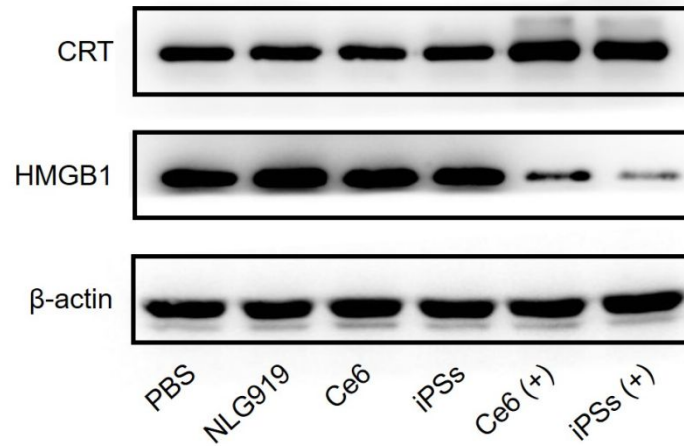


Figure S10. Western blot analysis of the expression of CRT and HMGB1 in CT26 cells after treatment with NLG919, Ce6 or iPSs in the presence or absence of light irradiation. β -actin was employed as the internal control.

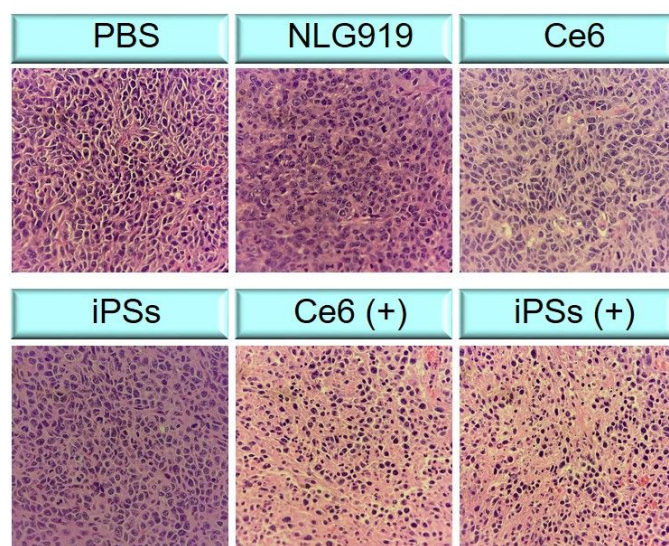


Figure S11. H&E staining of the tumor tissues after various treatments.

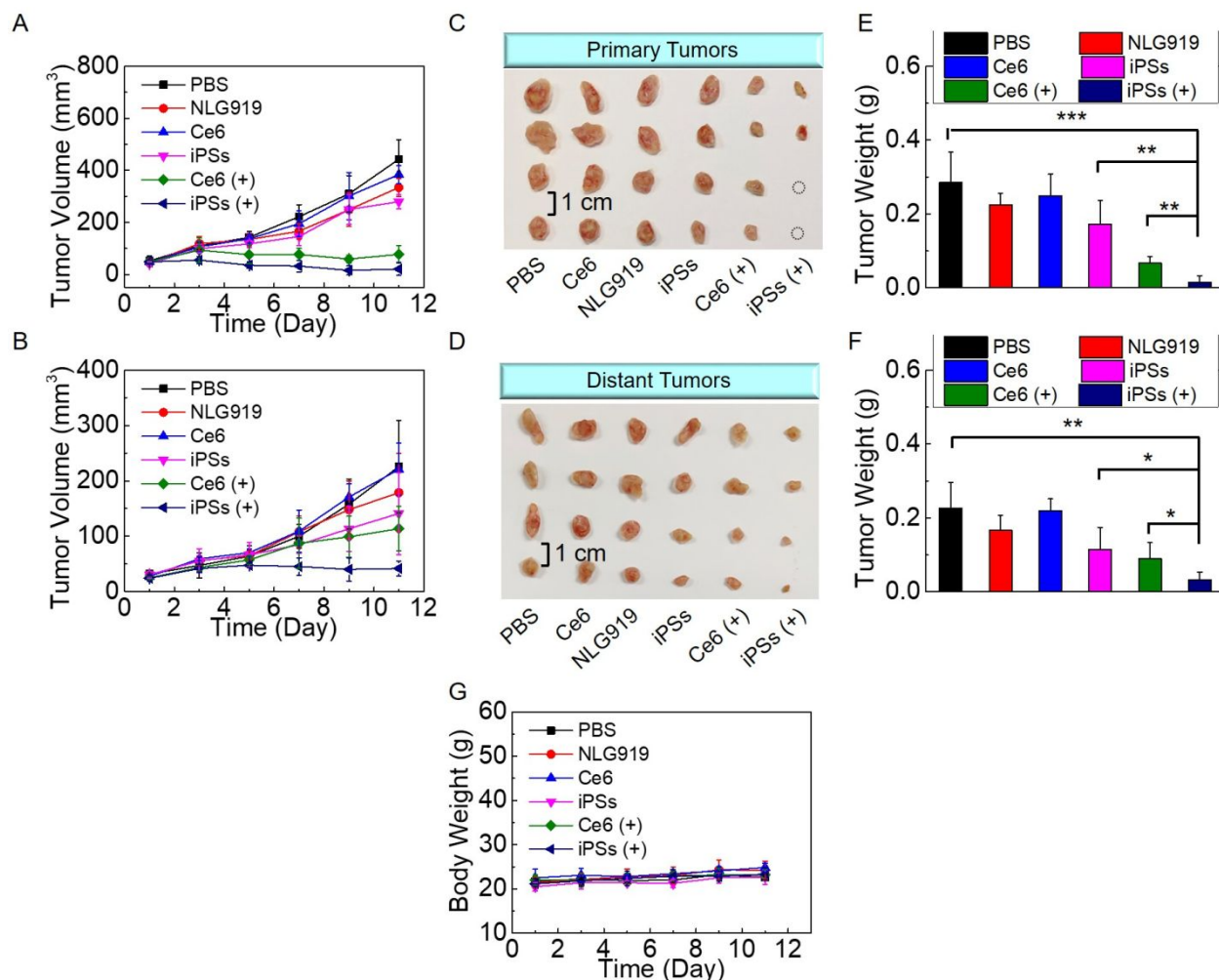


Figure S12. (A) The primary tumor volume and (B) the corresponding distant tumor volume changes of 4T1 tumor-bearing mice after treatment with NLG919, Ce6 or iPSs in the presence or absence of light irradiation. The sacrificed (C) primary and (D) corresponding distant tumor images after administration for 11 days. (E) Primary and (F) distant tumor weight after administration for 11 days. (G) The body weight change of the mice after various treatments in 11 days. * $P < 0.05$, ** $P < 0.01$ and *** $P < 0.001$ were tested *via* a Student's t-test.

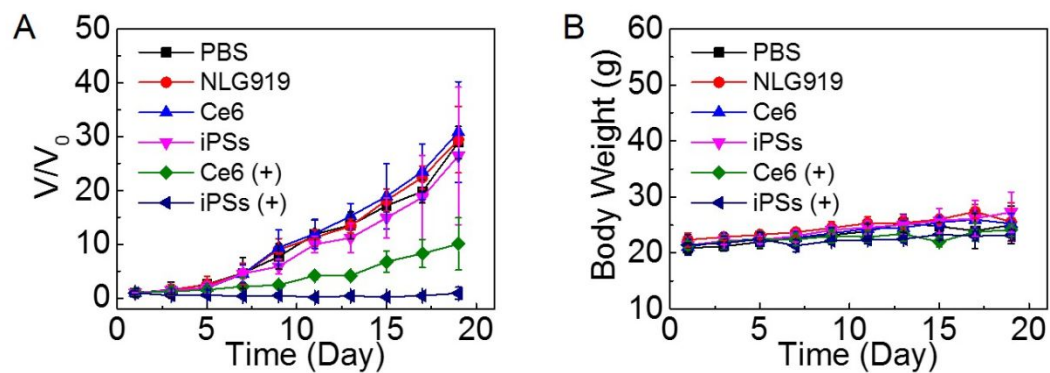


Figure S13. The changes of (A) the CT26 tumor volume (B) the body weight of the mice after treatment with NLG919, Ce6 or iPSs in the presence or absence of light irradiation.

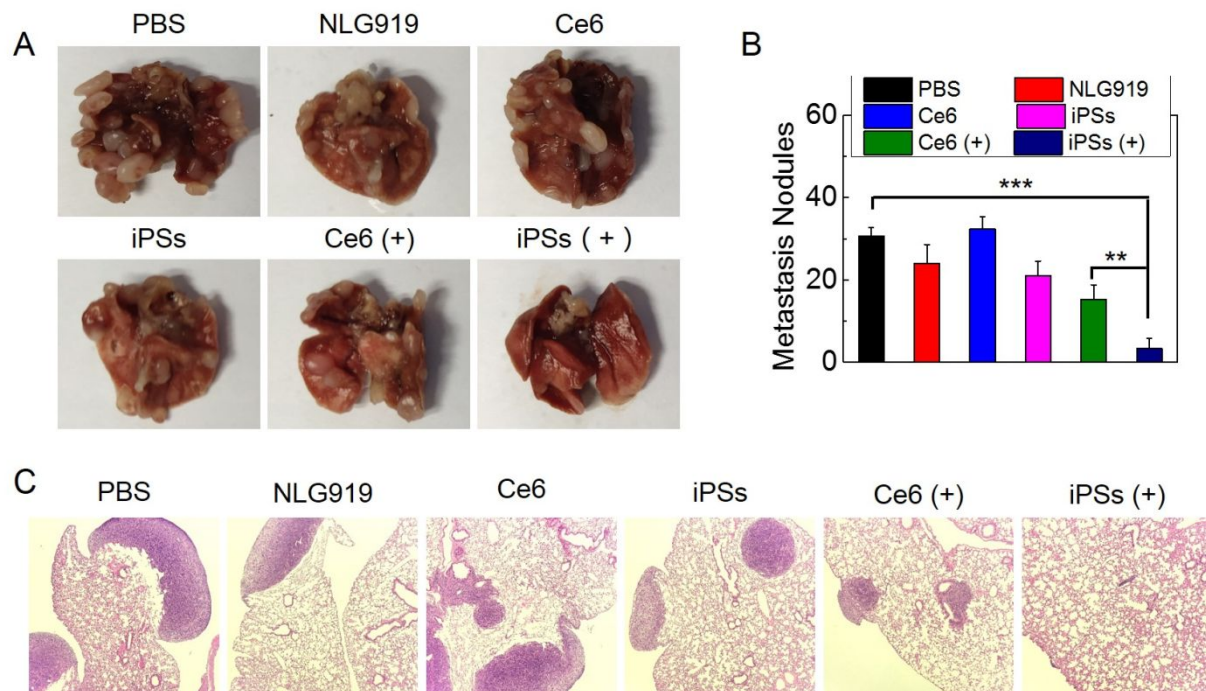


Figure S14. (A) The images of lung tissues of the CT26-tumor bearing mice after treatment with NLG919, Ce6 or iPSs in the presence or absence of light irradiation. (B) The calculated lung metastasis nodules of the mice after various treatments. (C) The H&E staining of lung tissues of the mice after various treatments. $**P < 0.01$ and $***P < 0.001$ were tested *via* a Student's t-test.

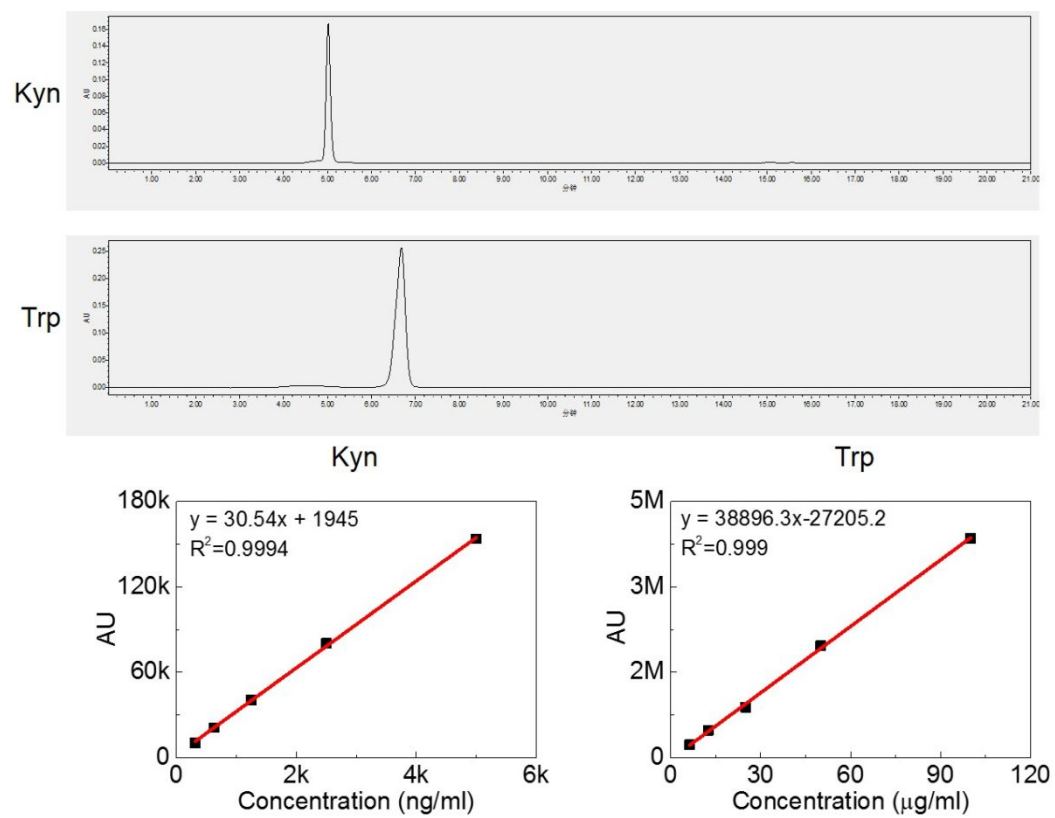


Figure S15. HPLC analysis and standard curves of Kyn and Trp.

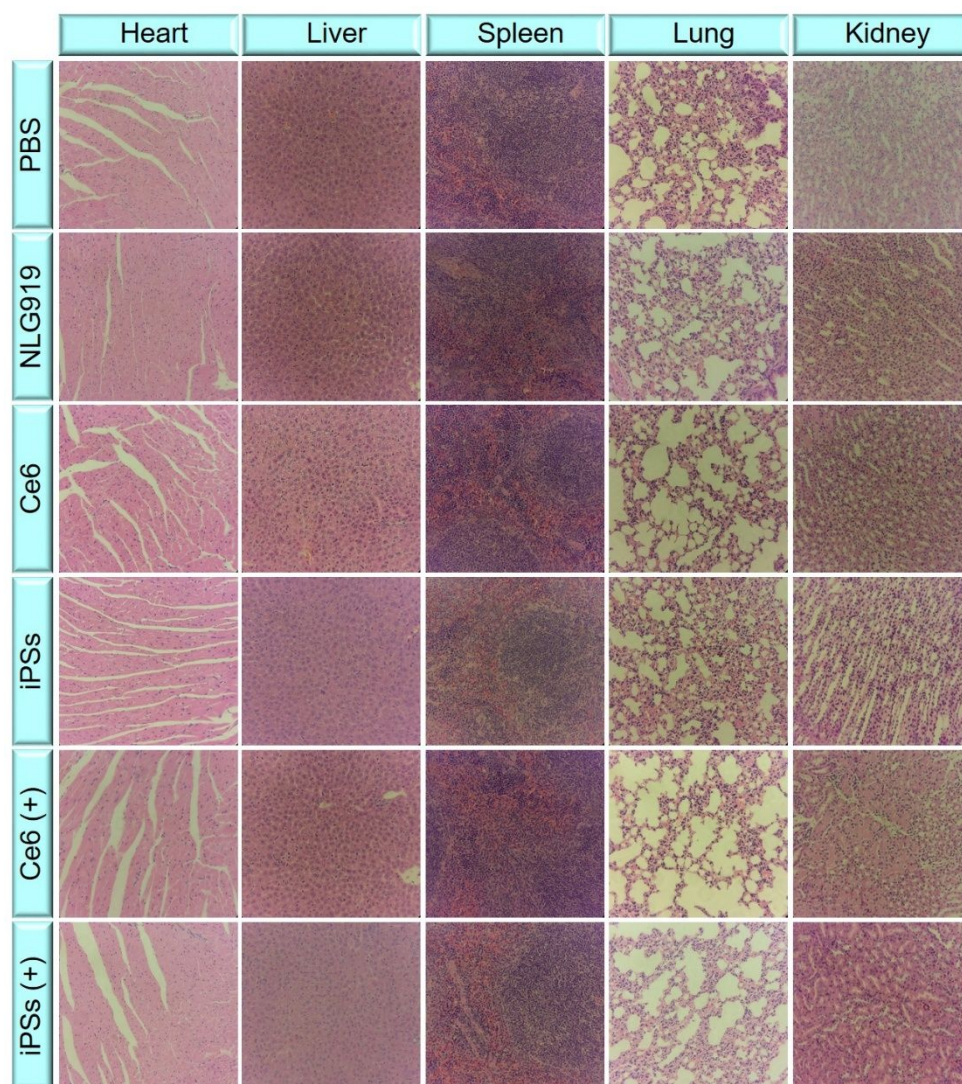


Figure S16. H&E staining of the main organs after various treatments.

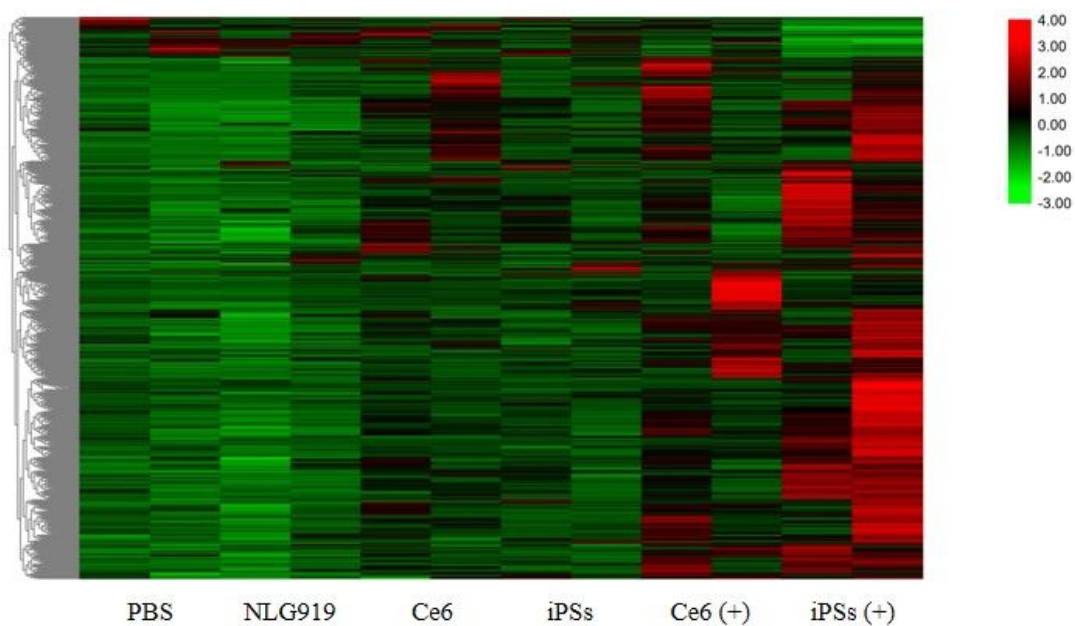


Figure S17. Differentially expressed genes of the tumors after treatment with PBS, NLG919, Ce6, iPSs, Ce6 with light or iPSs with light. The absolute fold change ≥ 2 and $P < 0.05$ between the group after treatment with PBS and iPSs with light.

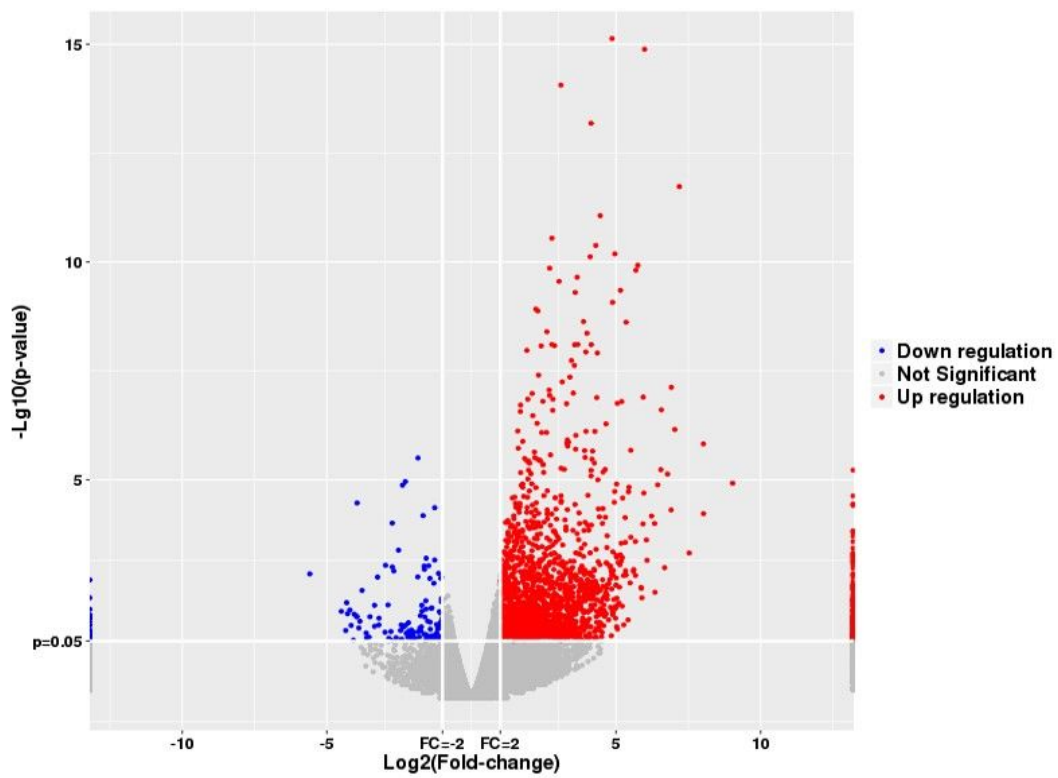


Figure S18. Volcano plot of the up-regulated or down-regulated genes among the differentially expressed genes in iPSs with light group.

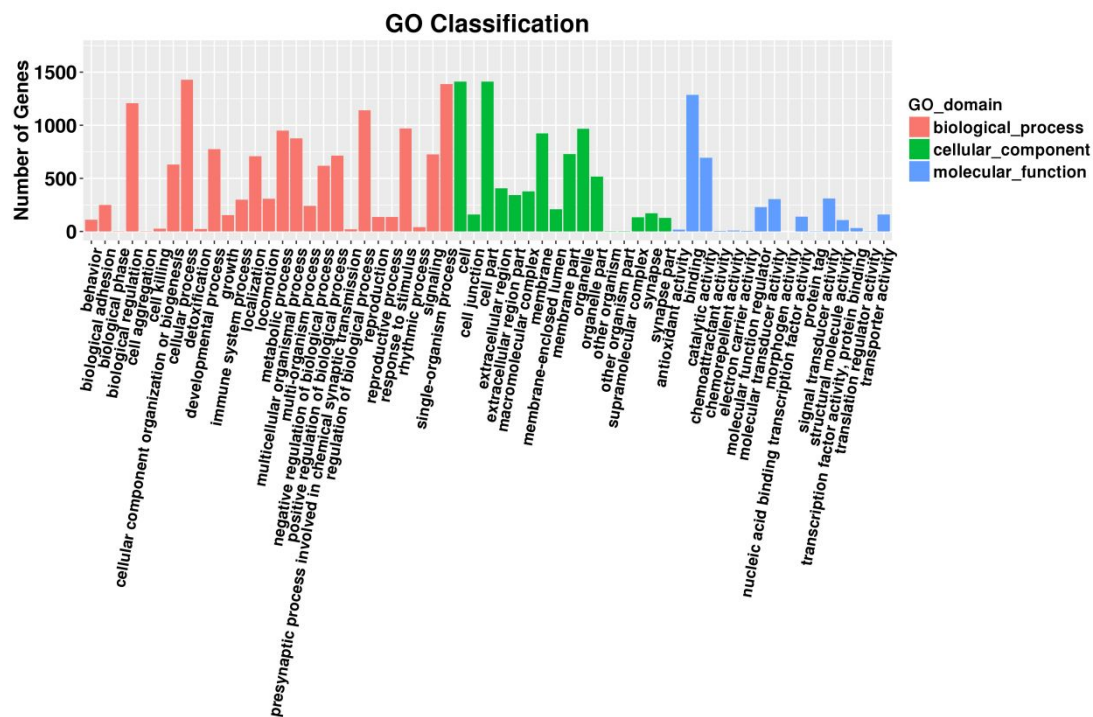


Figure S19. GO analysis of the differentially expressed genes after treatment with PBS and iPSs with light.

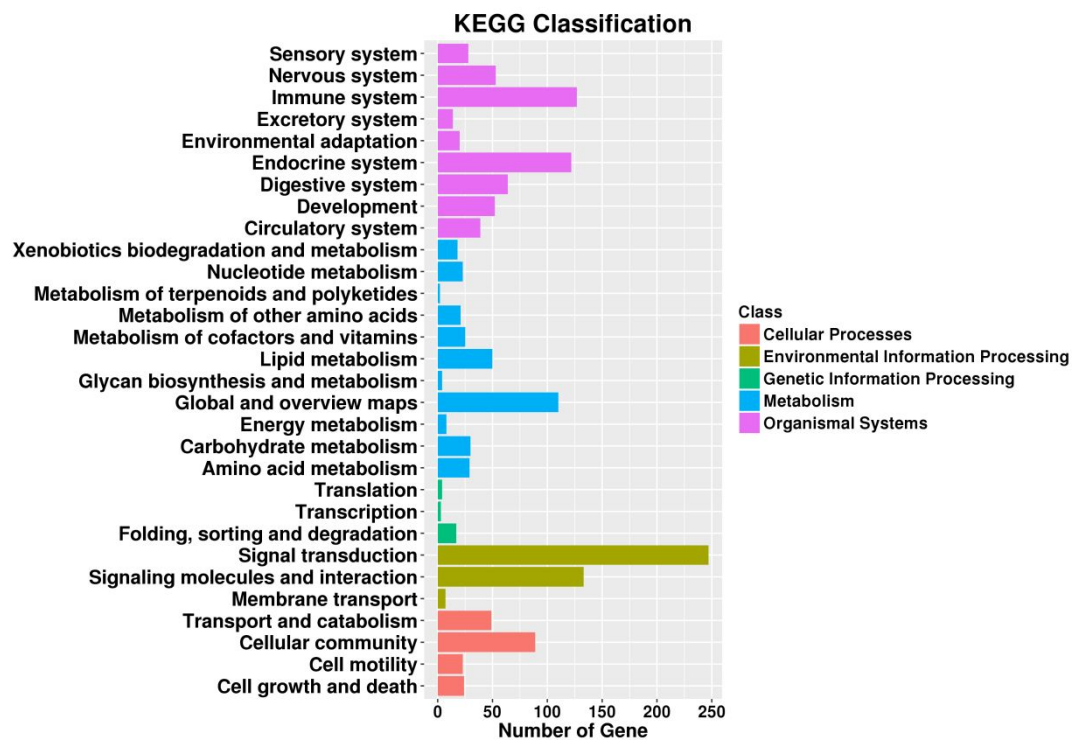


Figure S20. KEGG analysis of the differentially expressed genes after treatment with PBS and iPSs with light.



Figure S21. GO and KEGG analysis of the genes which positive regulation of the innate immune response.

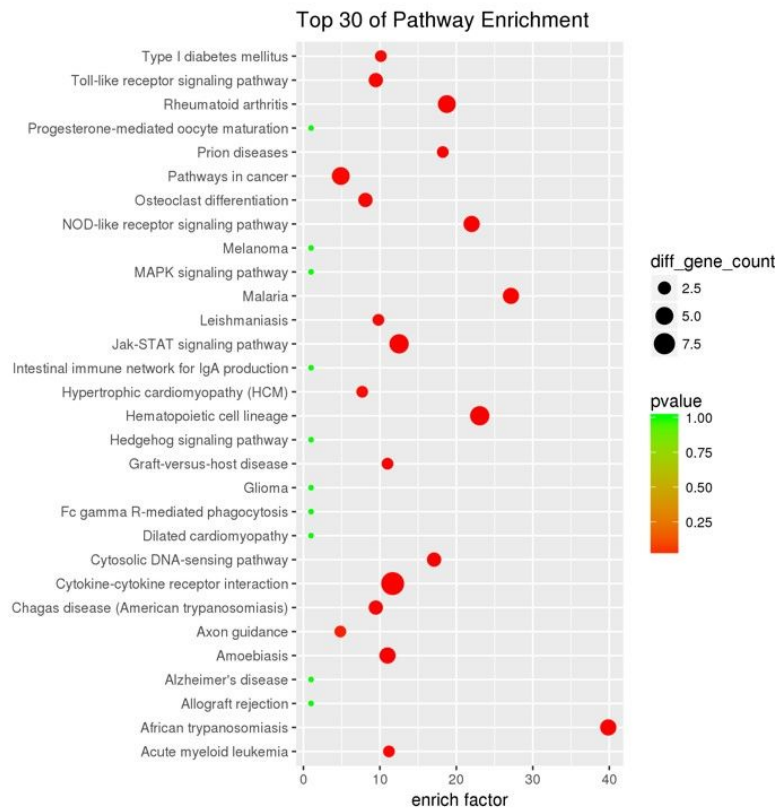
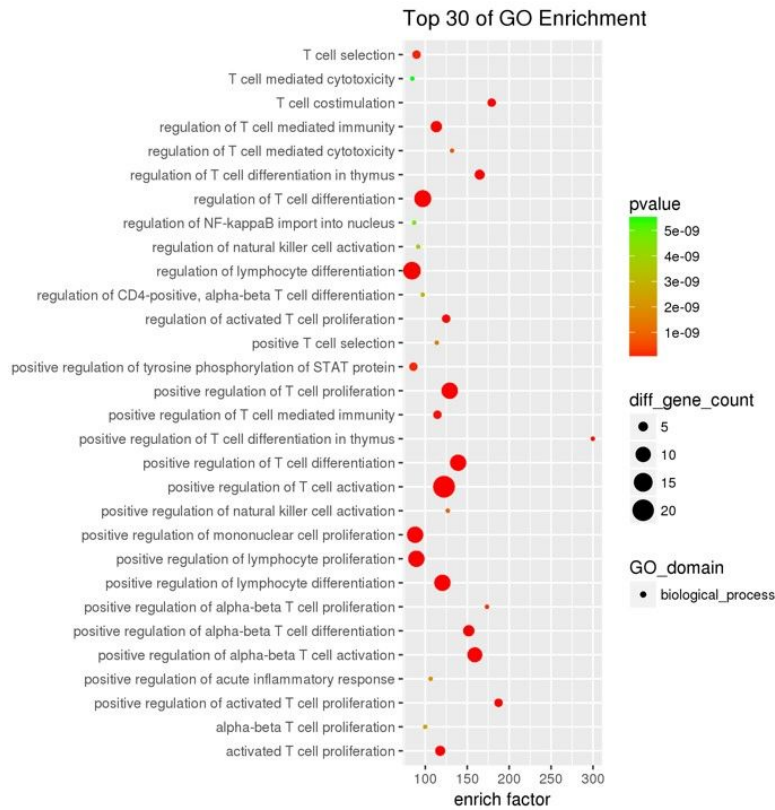


Figure S22. GO and KEGG analysis of the genes which positive regulation of the T cell activation.