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## Supporting Information

for *Adv. Healthcare Mater.*, DOI: 10.1002/adhm.201900474

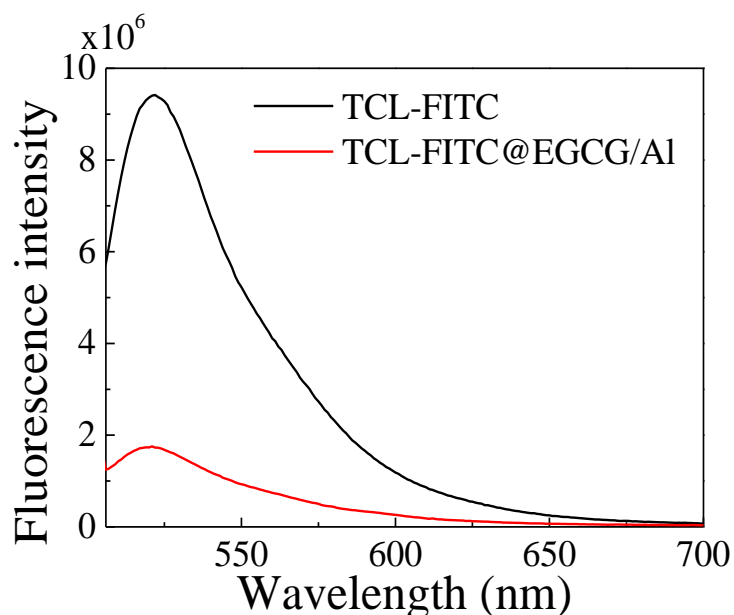
A Generic Coordination Assembly-Enabled Nanocoating of Individual Tumor Cells for Personalized Immunotherapy

*Xiaoli Wang, Zuoguan Chen, Chao Zhang, Chuangnian Zhang, Guilei Ma,\* Jing Yang, Xiaoqing Wei,\* and Hongfan Sun*

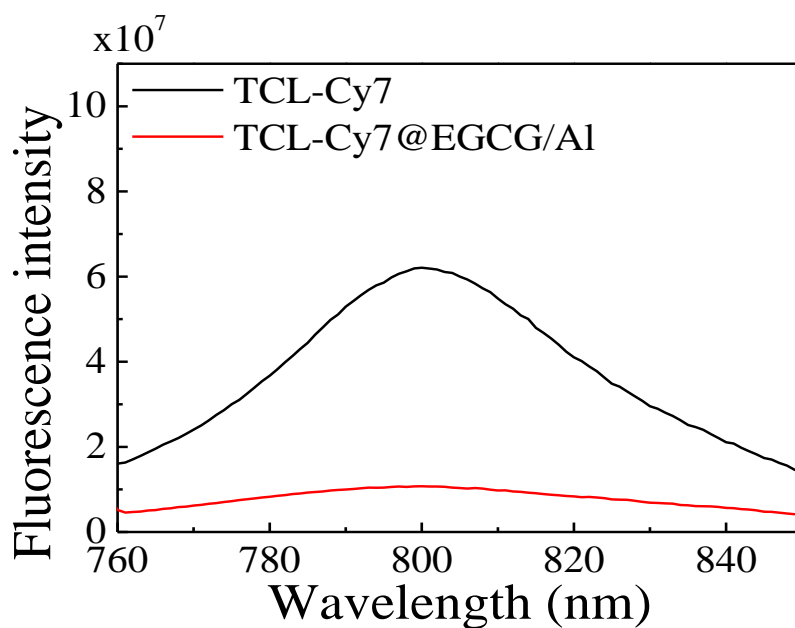
## Supporting Information

**A generic coordination assembly-enabled nanocoating of individual tumor cells for personalized immunotherapy**

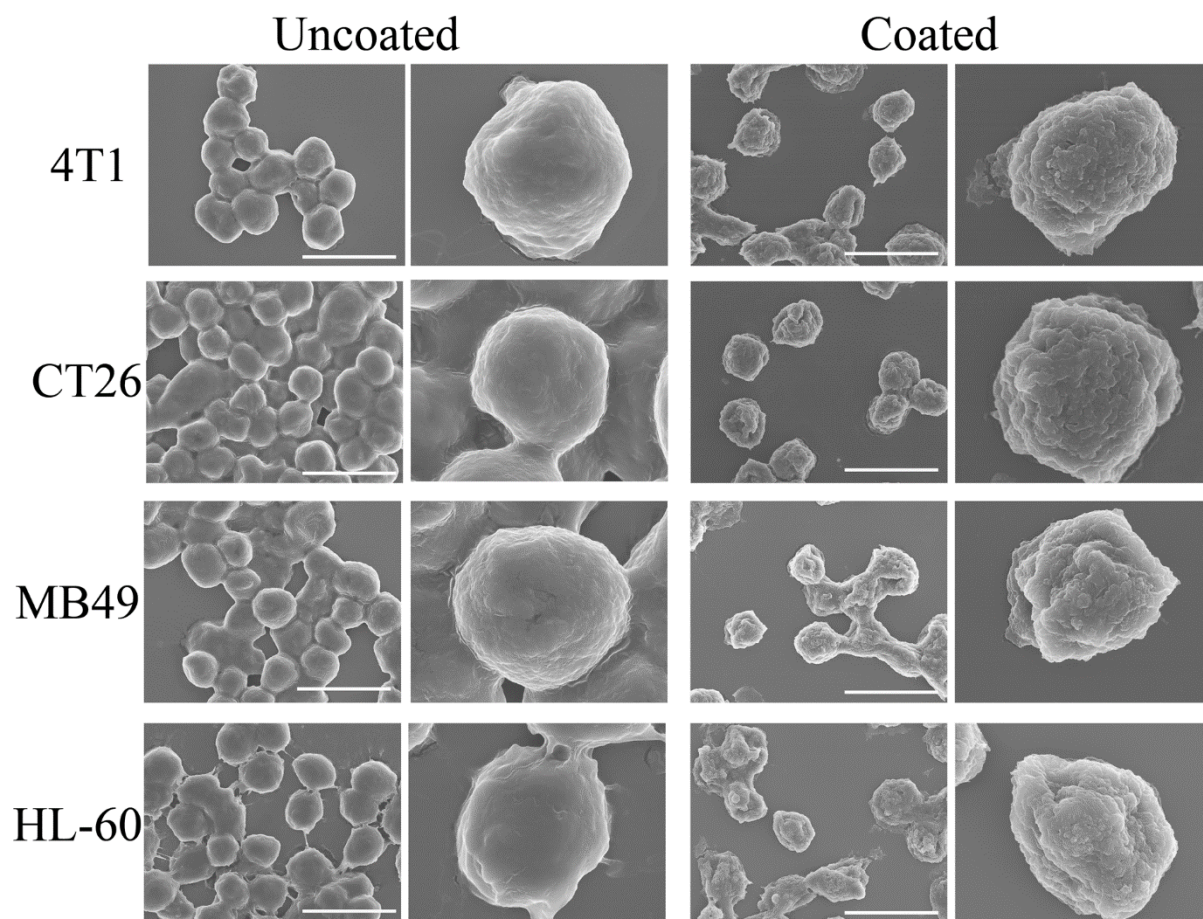
Xiaoli Wang,<sup>‡a</sup> Zuoguan Chen,<sup>‡b</sup> Chao Zhang,<sup>a</sup> Chuangnian Zhang,<sup>a</sup> Guilei Ma,<sup>\*a</sup> Jing Yang,<sup>a</sup> Xiaoqing Wei,<sup>\*c</sup> Hongfan Sun<sup>a</sup>



**Figure S1.** The fluorescence spectra of TCL-FITC and TCL-FITC@EGCG/Al in water, the excitation wavelength was 495 nm, the concentration of TCL-FITC in all the formulations was  $10 \mu\text{g ml}^{-1}$ . The fluorescence intensity of TCL-FITC was obviously higher than that of TCL-FITC@EGCG/Al although the concentration of TCL-FITC in all the formulations was the same. This phenomenon was notoriously known as fluorescence aggregation-caused quenching (ACQ).[1, 2] Because of the high protein loading capacities, the concentration of TCL-FITC within microparticles were quite high, thus the aggregation of TCL-FITC caused fluorescence quenching.



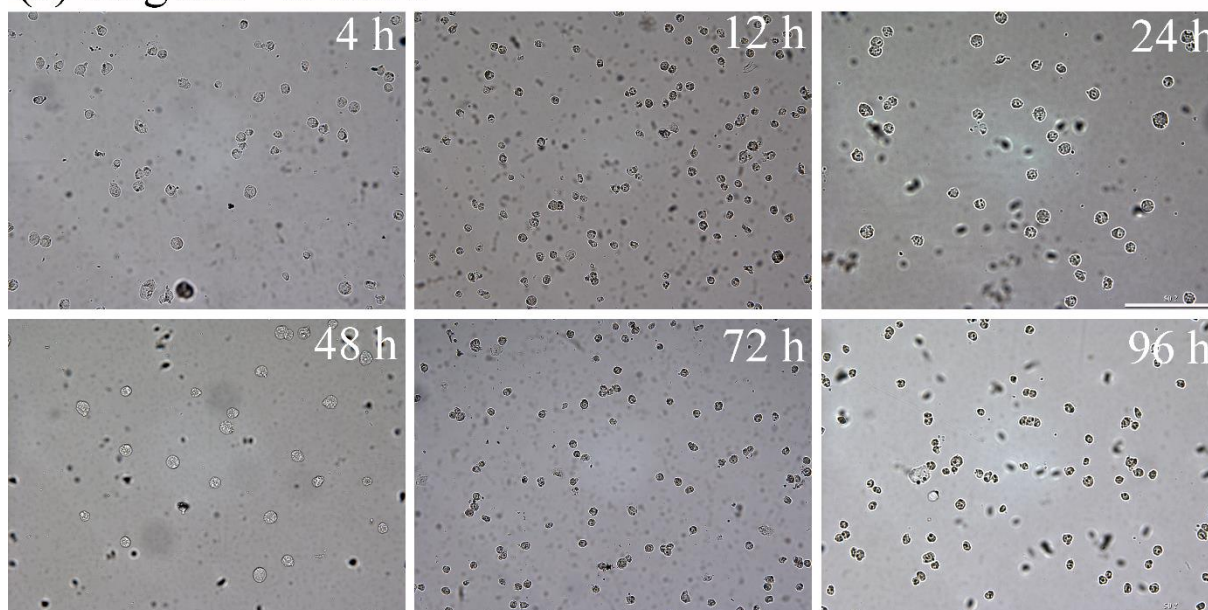
**Figure S2.** The fluorescence spectra of TCL-Cy7 and TCL-Cy7@EGCG/Al in water, the excitation wavelength was 750 nm, the concentration of TCL-Cy7 in all the formulations was  $0.3 \text{ mg ml}^{-1}$ .



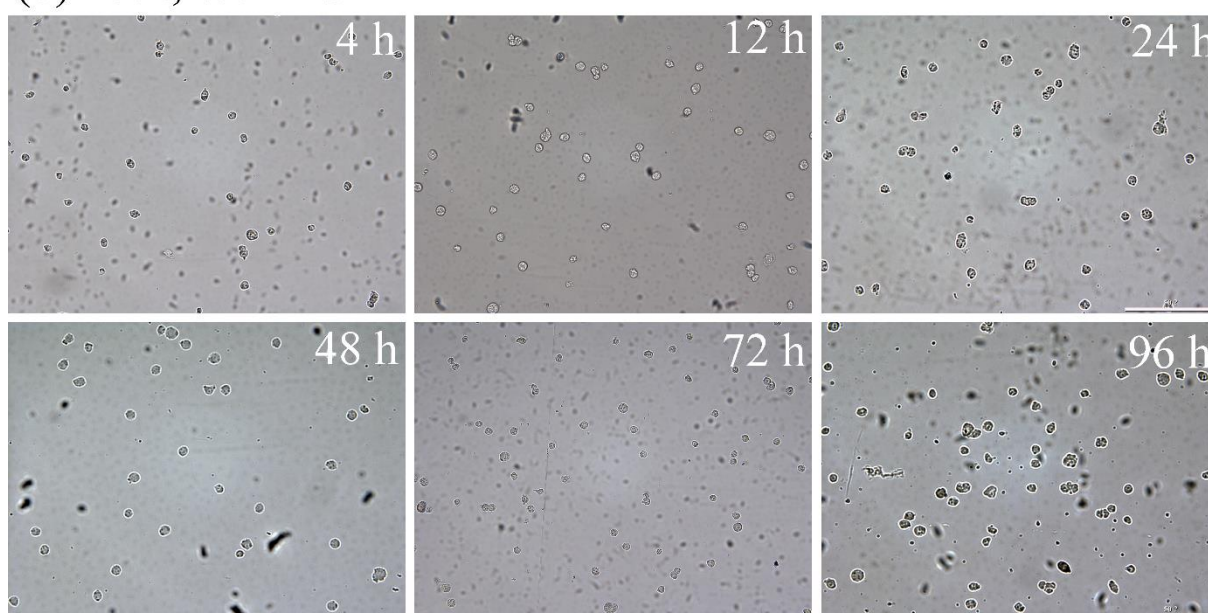
**Figure S3.** SEM images of 4T1, CT26, MB49 and HL-60 cells before and after coating by EGCG/Al layer. Uncoated cells were fixed by glutaraldehyde followed by washing with high-purity water. The ruler was 20  $\mu\text{m}$ .



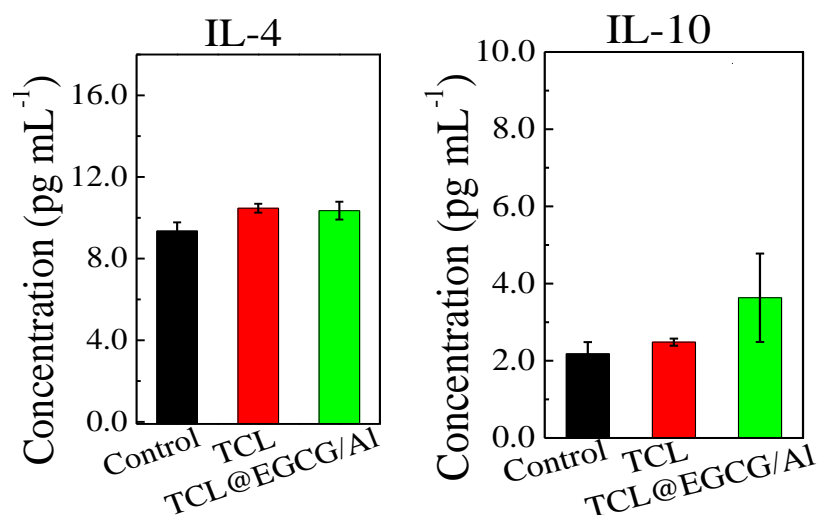
(a) 1mg mL<sup>-1</sup> of BSA



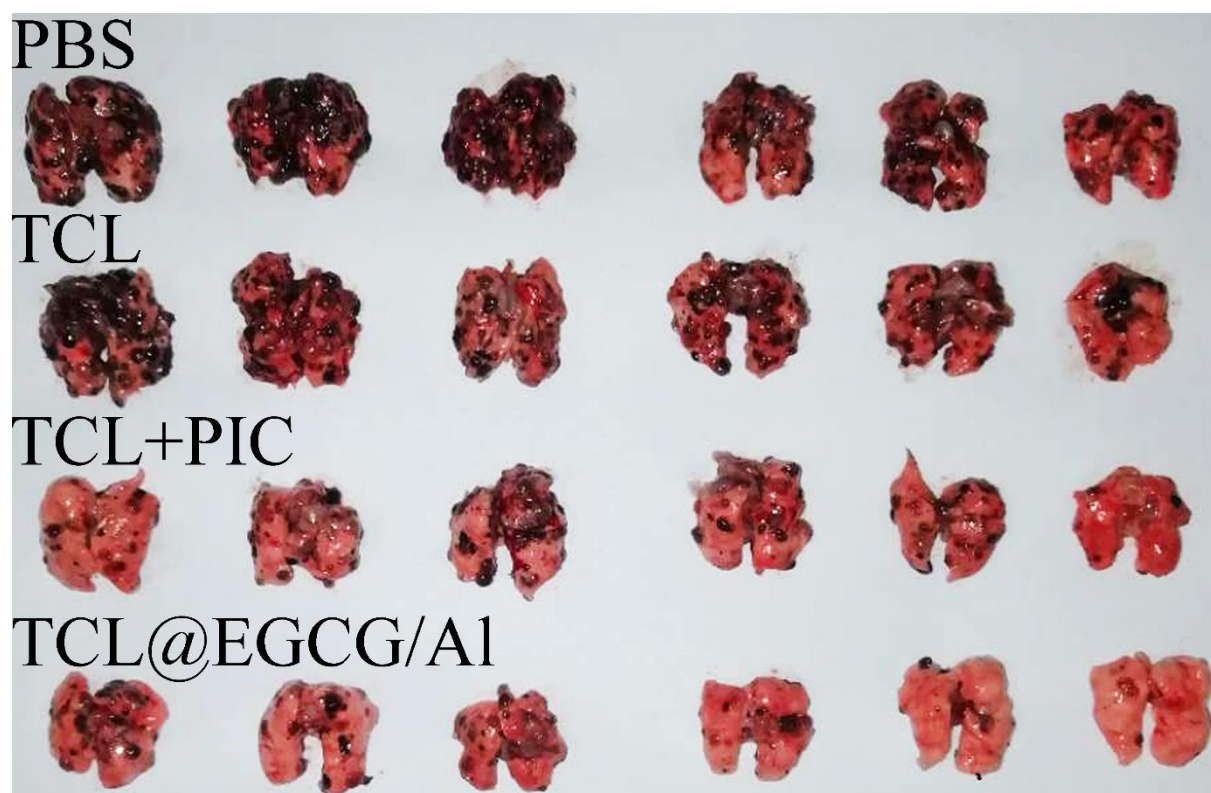
(b) 10%, v/v FBS



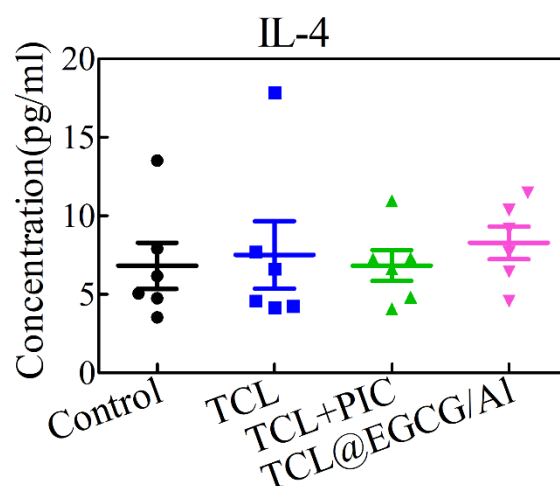
**Figure S4.** The optical images of TCL@EGCG/Al after suspending the microparticles vaccine in culture medium containing a known concentration of BSA or FBS at 37 °C for a period of time.



**Figure S5.** Secretion of IL-4 and IL-10 from BMDCs treated with different formulations, the differences were analyzed using unpaired student's t-test. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .



**Figure. S6** Photographic images of lungs from tumor-bearing mice on day 18 post tumor challenge



**Figure. S7** IL-4 level of splenocyte culture supernatant after 3 days of antigen stimulation, the data are expressed as mean  $\pm$  SD ( $n = 6$ ), the differences were analyzed by one way ANOVA with Bonferroni multiple comparison post-test.

## References

- [1] a) X. Ma, R. Sun, J. Cheng, J. Liu, F. Gou, H. Xiang, X. Zhou, *J. Chem. Educ.* **2016**, 93, 345; b) J. Wu, W. Liu, J. Ge, H. Zhang, P. Wang, *Chem. Soc. Rev.* **2011**, 40, 3483.