

## Supplementary Information

### **An exosome-mimicking membrane hybrid nanoplatfom for targeted treatment towards Kras-mutant pancreatic carcinoma**

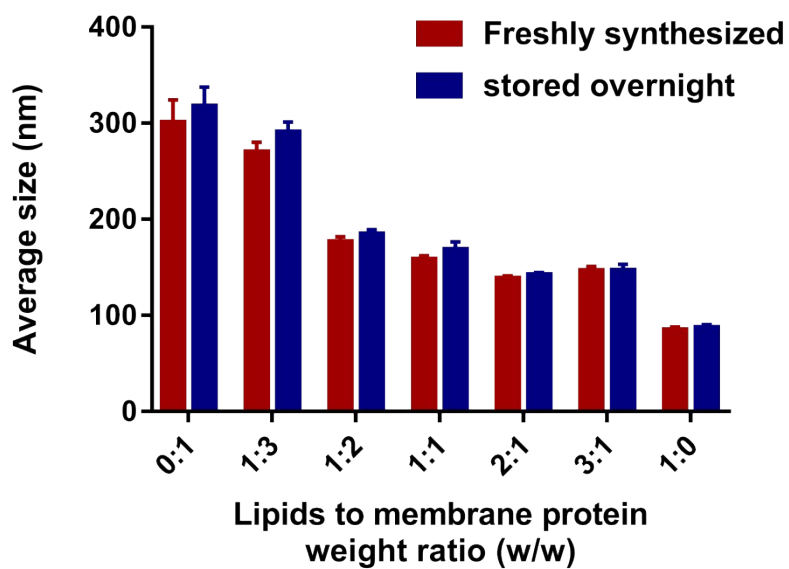
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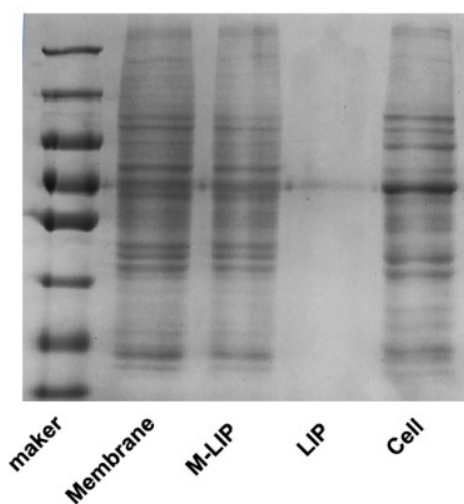
Chengdu, 610041, P. R. China.

\* Corresponding author E-mail: [zhangling83@scu.edu.cn](mailto:zhangling83@scu.edu.cn)

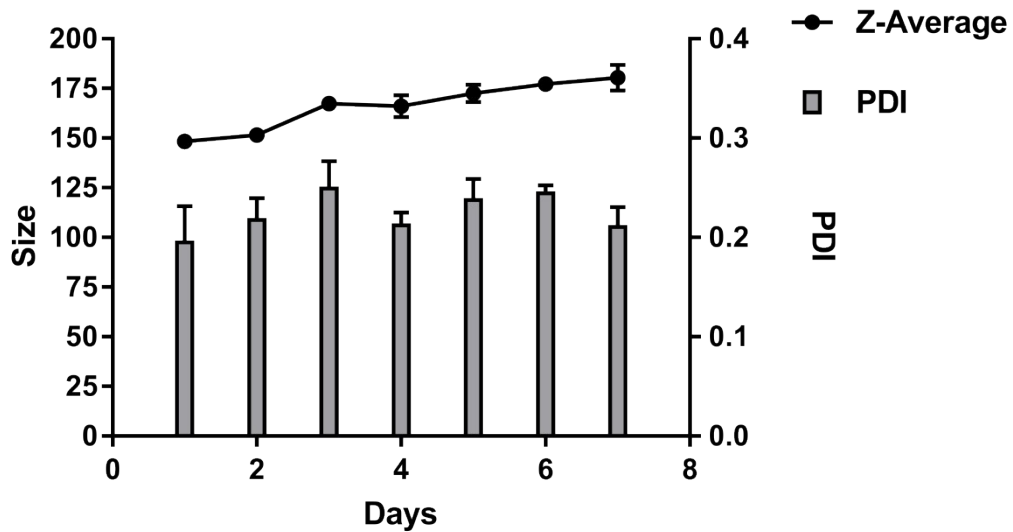
## Supplementary figures



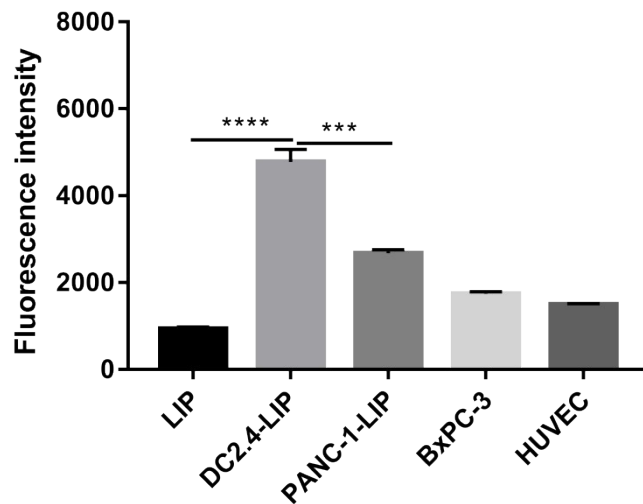
**Fig. S1 Supplementary data for lipids to membrane weight ratios selection.** Hydrodynamic size of M-LIP-CLT as measured by DLS at varying lipids to membrane weight ratios after freshly synthesized, and after storage overnight in  $1 \times$  PBS. Data represent means  $\pm$  SD ( $n = 3$ ).



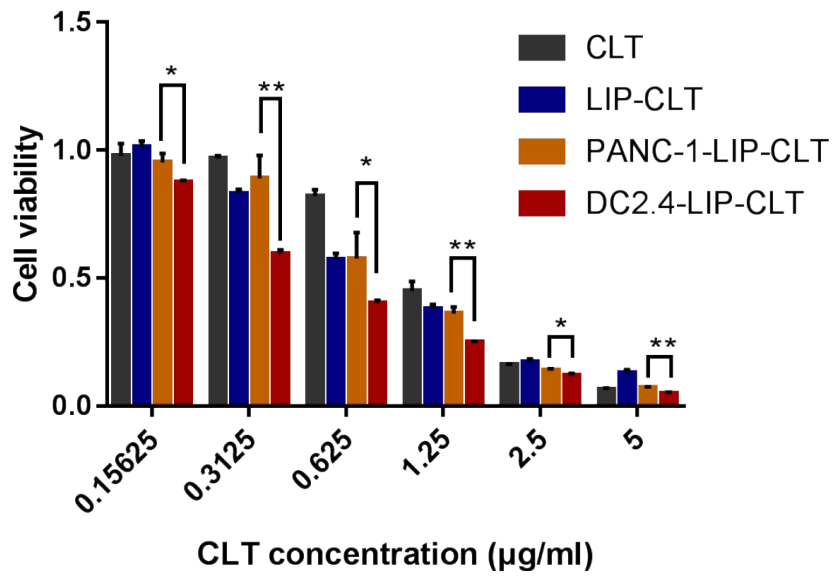
**Fig. S2 Supplementary data for integration of DC 2.4 cell membrane.** Protein bands of the DC2.4 cell membrane, M-LIP, liposome and DC2.4 cell, resolved using SDS-PAGE.



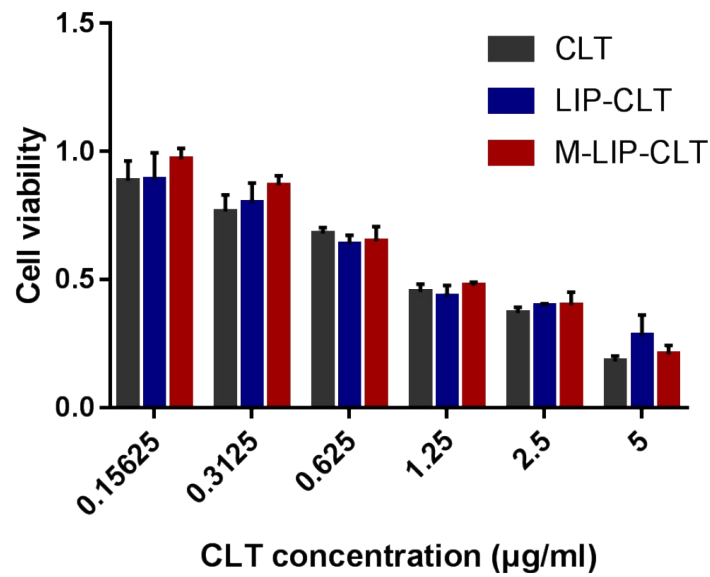
**Fig. S3 Supplementary data for stability assessment.** Average size and PDI of M-LIP-CLT stored at 4 °C as measured by DLS in 7 days after synthesis. Data represent means  $\pm$  SD (n = 3).



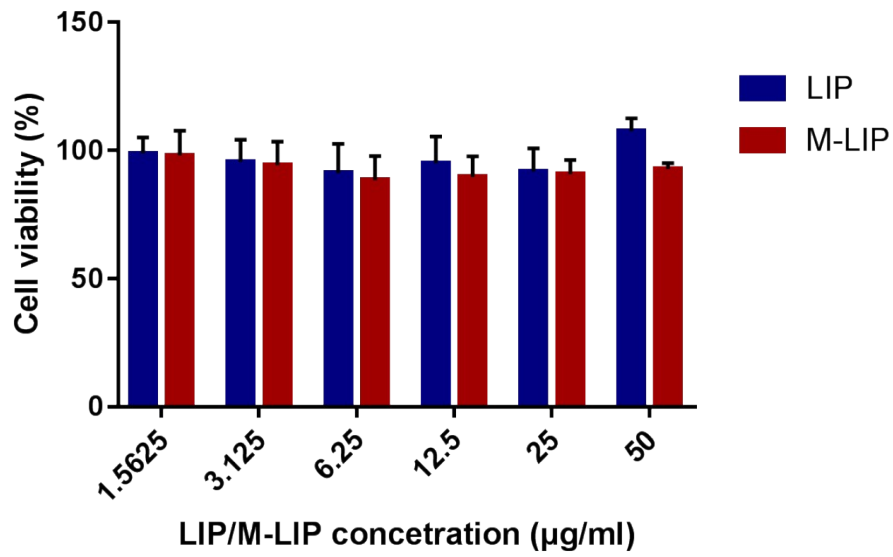
**Fig. S4 Comparison of the uptake efficiency of different cell membrane preparations.** LIP, DC2.4-LIP, PANC-1-LIP, BxPC-3-LIP and HUVEC-LIP uptake measured by flow cytometry in PANC-1. \*\*\* P < 0.001, \*\*\*\*P<0.0001. Data represent means  $\pm$  SD (n = 3).



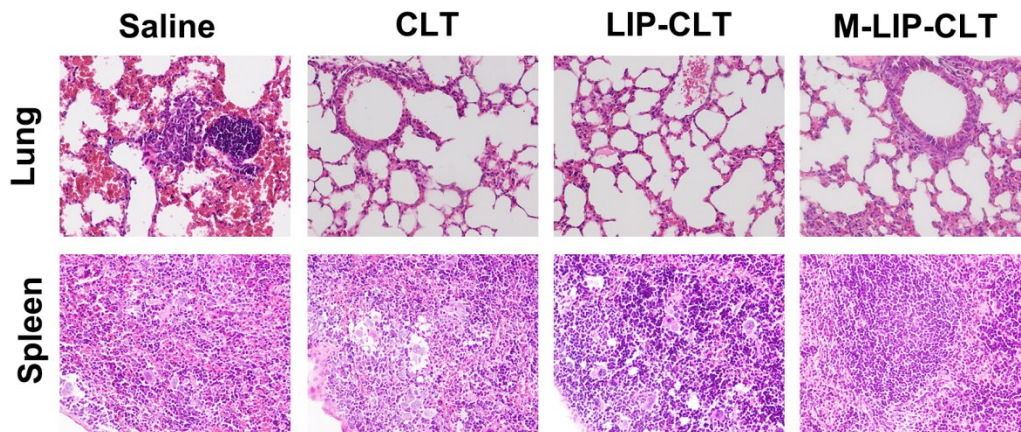
**Fig. S5 Cytotoxicity.** Viability of PANC-1 cells after 24 h of treatment of CLT solution, LIP-CLT, PANC-1-LIP-CLT and DC2.4-LIP-CLT. Data represent means  $\pm$  SD (n = 3). \* P < 0.05, \*\* P < 0.01.



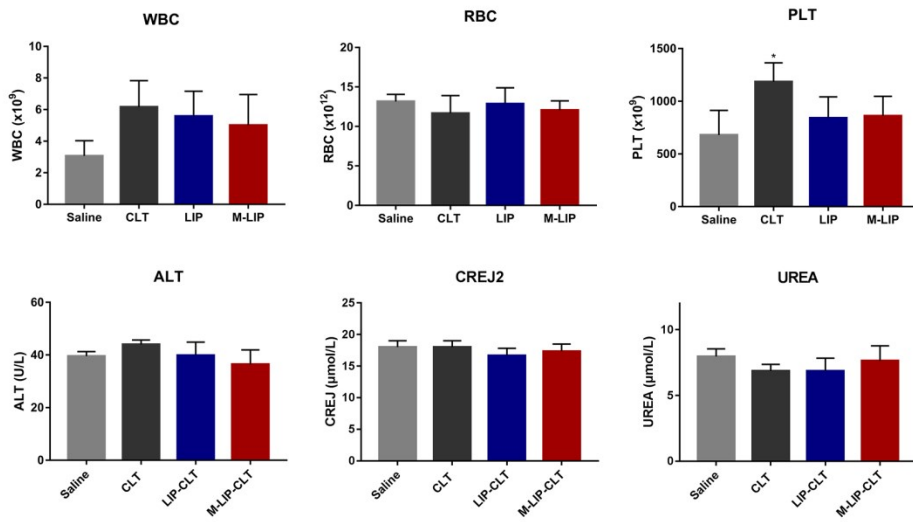
**Fig S6. Cytotoxicity.** Viability of BxPC-3 cells after 24 h of treatment of CLT solution, LIP-CLT and M-LIP-CLT.



**Fig. S7 Cytotoxicity of blank preparations.** Viability of PANC-1 cells after 24 h of treatment of LIP or M-LIP. Data represent means  $\pm$  SD (n = 3).



**Fig. S8 Tumor metastasis.** H&E (200  $\times$ ) staining assay of lung and spleen of tumor-bearing mice on day 21 after Saline, CLT, LIP-CLT or M-LIP-CLT treatment.



**Fig. S9 Supplementary data for safety assessment** WBC, RBC, PLT, ALT ,CREJ2 and UREA levels on day 21 after Saline, CLT, LIP-CLT or M-LIP-CLT treatment. Data represent mean  $\pm$  SD (n = 5). Compare to the Saline group: \* P < 0.05.