Supplementary Information

An exosome-mimicking membrane hybrid nanoplatform for targeted treatment towards Kras-mutant pancreatic carcinoma

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**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 × PBS. Data represent means ± 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 ± 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 ± 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 ± 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 ± SD (n = 3).

**Fig. S8 Tumor metastasis.** H&E (200 ×) 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 ± SD (n = 5). Compare to the Saline group: * P < 0.05.