美迪西CGT研发服务平台

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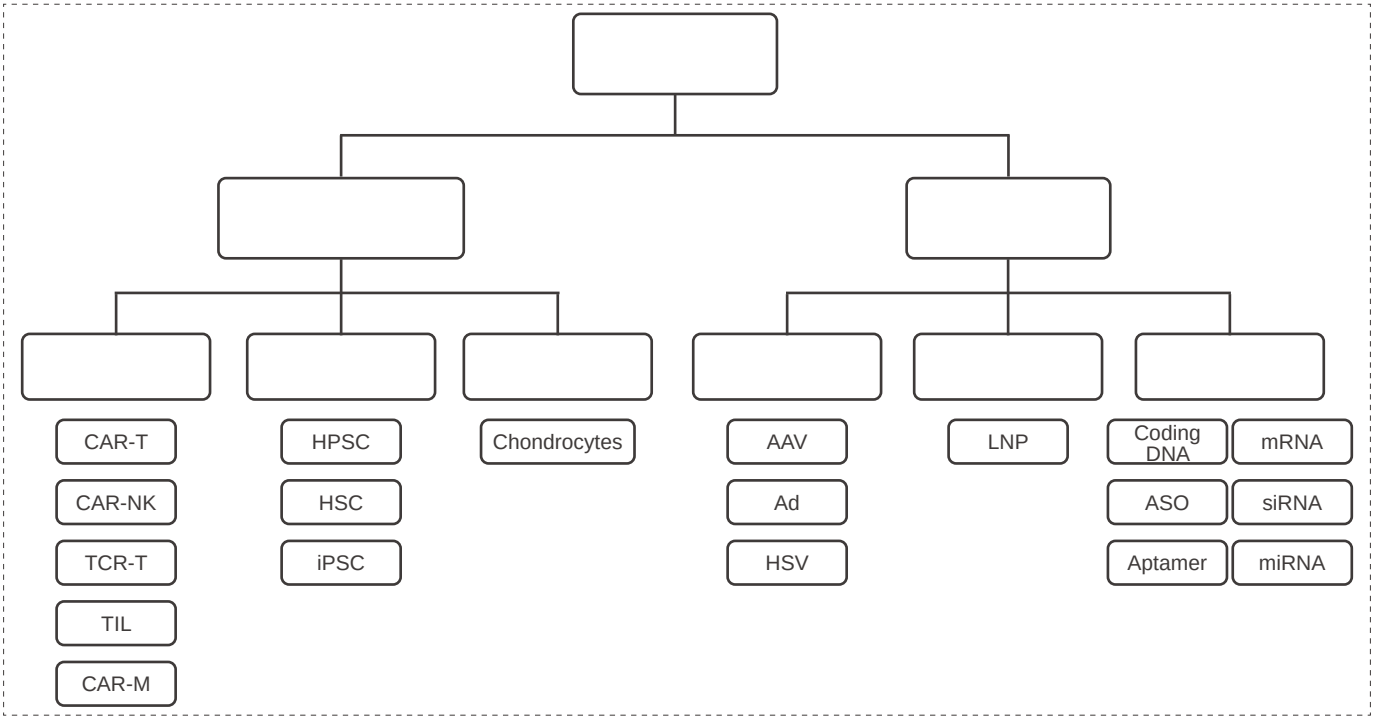
CGT **CGT**
CGT



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T !NK !B DC !

!

k CAR-T T !TCR-T

T T !TIL CAR-NK NK !CAR-M

k

CAR-T

CAR-T Chimeric Antigen Receptor T-Cell Immunotherapy T !CAR

T CAR T

k CAR T CAR-T !CAR-T

! B

T

k

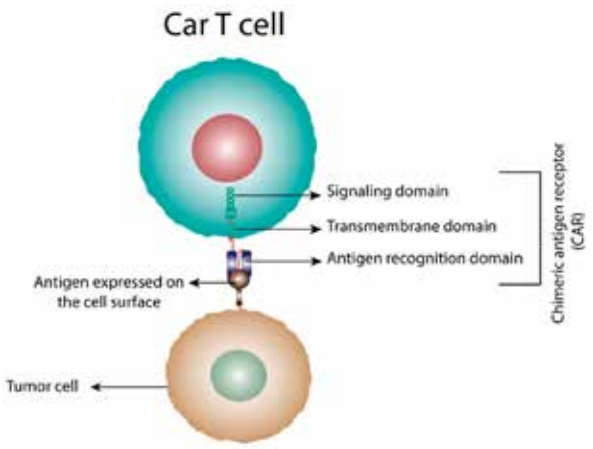
CAR-T !CAR-T

k CAR-T

! CAR-T k

a

b



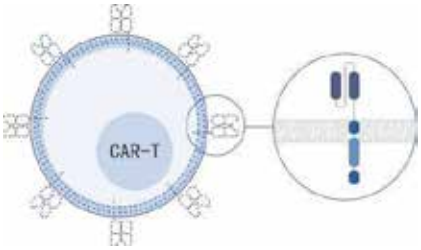
CAR-T cell structure and mechanism of action[1]

CAR-NK

NK (natural killer)
kCAR-NK CAR-T CAR NK
k

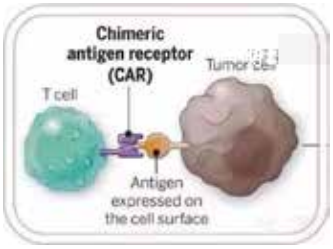
CAR-NK NK TCR T
T “ ”(Off-the-Shelf
k

Luc



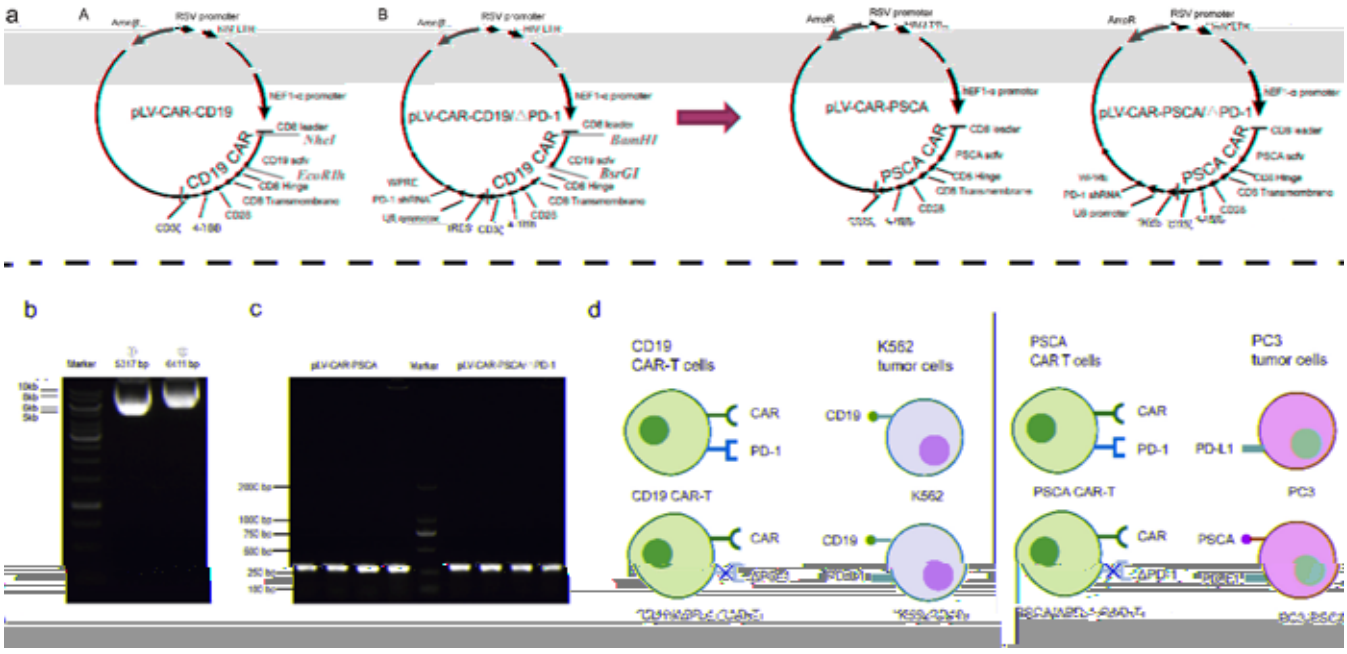
CAR-T

T



CAR-T

PD-1 shRNA CAR T PD-1 CAR-T k
PD-1 CAR-T
PD-1 CAR-T k
PD-1 CAR-T k



Plasmid containing PD-1 knockdown sequence[4]

+

+ CDX

+ PDX

PBMC HSC +

+

+

+ CDX

PBMC HSC +

+ CDX

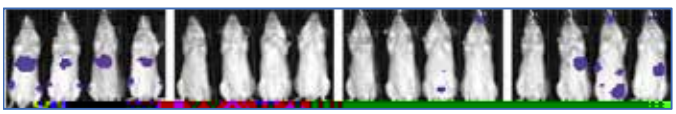
+ PDX

+

+

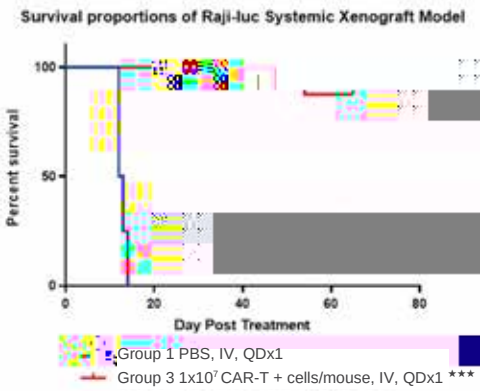
PBMC HSC +

Control



CAR-T + 1x10^7 cells/mouse IV,QDx1

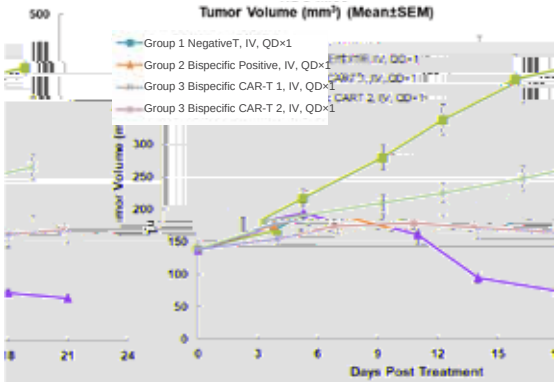
Groups	MST	%T/C$_{MST}$	P-Value
Vehicle	16.5	/	/
CAR T+	>65	>520	P<0.001



Raji-luc hPBMC

CAR-T

A549-Target A/A549-Target B Xenograft Tumor Model in Female B-NDG Mice



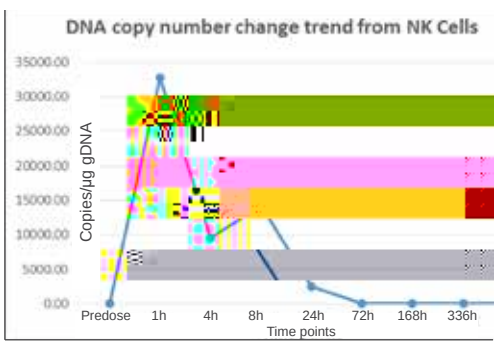
- B-NDG ~20 g
- A549-Target A+/A549-Target B (1:1)
  5×10^6 cells/mouse
-
- CAR-T+ Cells, IV, QD×1

CAR-T

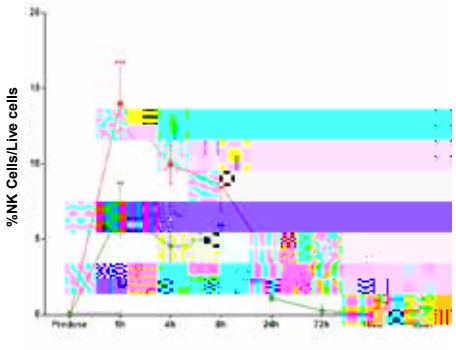
CGT

-
-
-
-
-
-
- PCR

PCR DNA



(qPCR)



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qPCR

CGT

PK/TK/BD

- PCR RT-qPCR
- PCR qPCR
- ddPCR
- - H-ELISA
- - H-ECL
- DNA bDNA

- ELISA
- ECL
- Cell-based Assay
-
- ELISPOT

- mRNA
  PCR RT-qPCR
- mRNA
  PCR RT-qPCR
-
  ·ELISA FIA
  ·ECL
  ·Western blotting

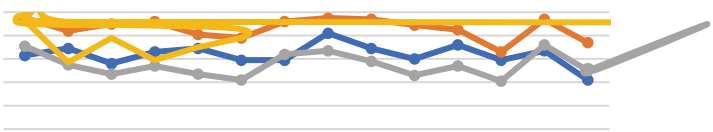
- Cytokines
  ·FACS CBA
  ·ECL
  ·Luminex
- Complements
  ·Sigle-plex for Complements

CGT

k / k CAR-T

CRS ! !B ! on-target/off-tumor !

(GVHD) ! / k



- **ABSL-2**

  ABSL-2 ! SPF !
  ! ! !
  ! ! ! ! ! !
  k

- !
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  k

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  k

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  k

- ABSL-2 ! !
  k

[1] Yi-Ju Chen, et al. CAR-T: What Is Next? Cancers. 2023 Jan 21;15(3):663.doi: 10.3390/cancers15030663.

[2] Ana Rosa Saez-Ibañez, et al. Landscape of cancer cell therapies: trends and real-world data. Nat Rev Drug Discov. 2022 Sep;21(9):631-632. doi: 10.1038/d41573-022-00095-1.

[3] Leisheng Zhang, et al. CAR-NK cells for cancer immunotherapy: from bench to bedside. Biomark Res. 2022 Mar 18;10(1):12. doi: 10.1186/s40364-022-00364-6.

[4] Jing-E Zhou, et al. ShRNA-mediated silencing of PD-1 augments the efficacy of chimeric antigen receptor T cells on subcutaneous prostate and leukemia xenograft. Biomed Pharmacother. 2021 May;137:111339. doi: 10.1016/j.biopha.2021.111339.