Comprehensive Cancer Center
Tübingen-Stuttgart

Post EBMT 2026

CAR-T-Zelltherapien | Neue Targets und Indikationen

PD Dr. med. Malte Rörden

EBERHARD KARLS
UNIVERSITÄT
TÜBINGEN

Comprehensive
Cancer Center
Tübingen - Stuttgart

Universitätsklinikum
Tübingen

Post EBMT – Höhepunkte des Europäischen Kongresses für Stammzelltransplantation und Zelltherapie 2026, Madrid - 29.04.2026

Programm

16.00 **Come together & Industrieausstellung**

16.25 Uhr **Begrüßung** Claudia Lengerke, Tübingen

Panel I Stammzelltransplantation und Gentherapie

16.30-16.45 Uhr

Konditionierung für allogene SZT

Christoph Faul, Tübingen

16.45-17.00 Uhr

SZT und Gentherapie für nicht maligne Erkrankungen

Peter Lang, Tübingen

17.00-17.15 Uhr

Post allo-SZT Immunrekonstitution/Infektionen

Adrian Fehn/Benedikt Obermaier, Tübingen

17.15-17.30

Nachsorge und Diagnostik nach allogener SZT und CAR-T

Kristina Reuß, Friederike Schwartz Tübingen

17.30-17.45 Uhr Panel Diskussion I

Moderation & Diskussion: Schaich, Kaufmann, Rother

17.45-18.15 Pause mit Industrieausstellung

Panel II CAR-T Zelltherapie und adoptive Zelltherapie

18.15-18.30 Uhr

CAR-T Zelltherapie Behandlungsstandards

Wolfgang Bethge, Tübingen

18.30-18.45 Uhr

CAR-T neue Targets und Indikationen

Malte Rörden, Tübingen

18.45-19.00 Uhr

CAR-T bei Autoimmunerkrankungen

Jörg Henes, Tübingen

19.00-19.15 Uhr

GMP-Manufactoring, Point of Care CAR-T

Luca Hensen, Tübingen

19.15-19.30 Uhr

Psychosoziale Einflüsse auf die Ergebnisse einer Zelltherapie: Emotionale Belastung und Patientenmortalität

Sabine Valenta, Tübingen

19.30-19.45 Uhr

Transplantatquelle und Spenderauswahl

Tim Flaadt, Tübingen

19.45-20.00 Uhr

Moderation & Diskussion: Medinger, Bethge, Greiner

Wir danken folgenden Firmen für die freundliche Unterstützung, die Sponsorengelder werden zur Finanzierung dieser Veranstaltung sowie weiteren Fortbildungen der IM2 verwendet.

Alexion Pharma Germany GmbH (1.000,- €)

Bristol- Myers Squibb GmbH (1.275,- €)

Clinigen Clinical Supplies Management GmbH (1.000,- €)

Gilead Sciences GmbH (600,- €)

Janssen-Cilag GmbH (Johnson & Johnson) (1.500,- €)

MSD Sharp & Dohme GmbH (1.000,- €)

Neovii Biotech GmbH (1.500,- €)

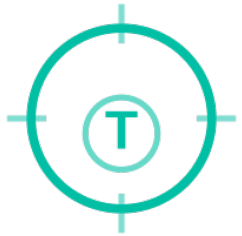
Sanofi - Aventis Deutschland GmbH (1.500,- €)

Servier Deutschland GmbH (1.000,- €)

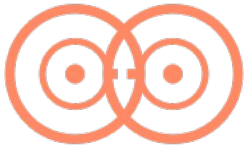
Lilly Deutschland GmbH (750,- €)

Medac GmbH (1.000, - €)

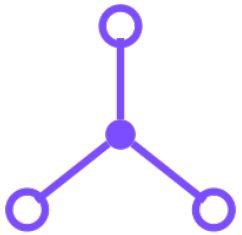
Neue CAR-T Targets und Indikationen



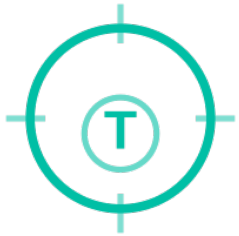
T-Zell-gerichtete CAR-T-Zelltherapien



Dual-targeting CAR-Konstrukte



Neue Anwendungsgebiete



T-Zell-gerichtete CAR-T-Zelltherapien

OS08-06: Anti-CD7 CAR-T-Zellen mit zweiter Allo-HSCT bei Post-allo Rezidiv T-ALL/T-LBL

OS08-05: Anti-CD7 CAR-T-Zellen in der Behandlung der mixed phenotype acute leukemia (MPAL)

OS18-07: Allogene Anti-CD70 CAR-T-Zellen bei ATLL und PTCL

A061: Resistenzmechanismen der Anti-CD7 CAR-T-Zelltherapie

Long-term outcomes of sequential CD7 CAR-T therapy and second allogeneic transplantation for T-ALL/LBL relapsed after prior allo-transplant

- NS7CAR ist ein 2. Generations CAR (4-1BB und CD3ζ) gegen CD7
- Natürliche Selektion CD7-negativer (CAR-) T-Zellen während Herstellung aufgrund des “fratricides”

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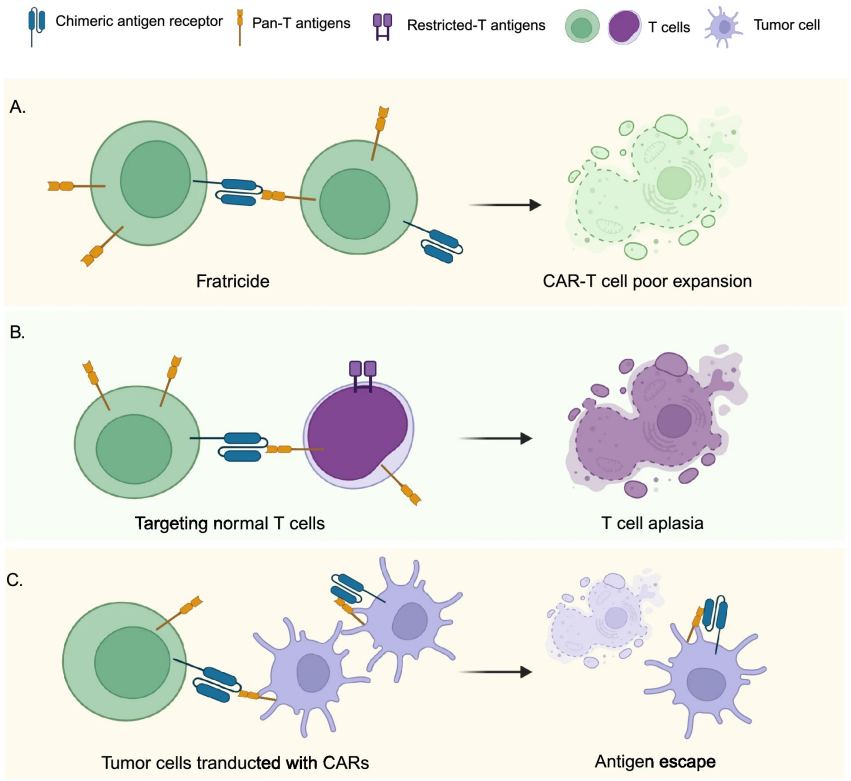

Zheng *et al.,* Experimental Hematology & Oncology 2024

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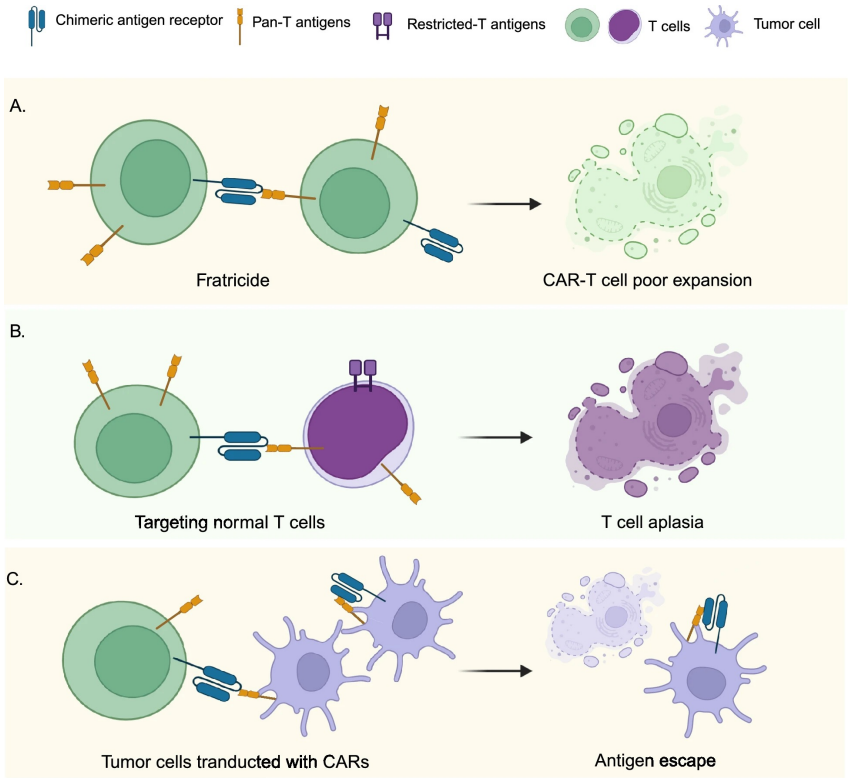
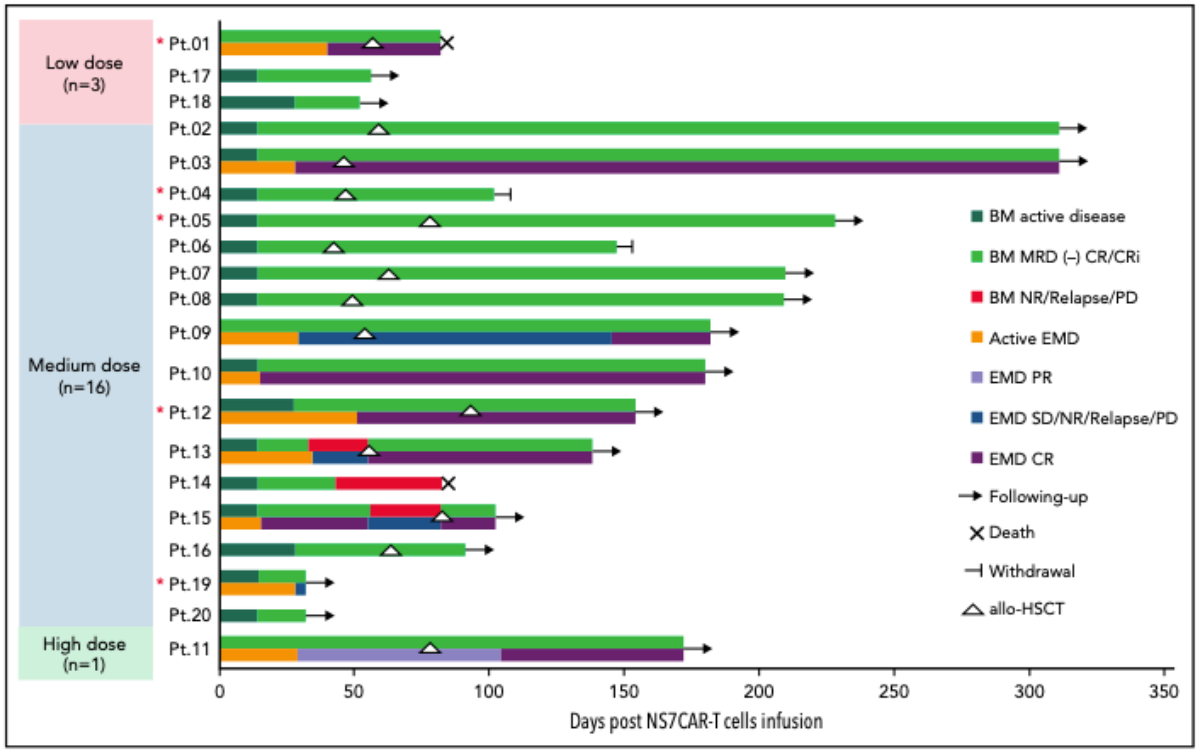


Zheng *et al.,* Experimental Hematology & Oncology 2024



Lu *et al.,* Blood 2022

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60 d (21–1115)

Patient population

Entity:
T-ALL 16 (88.9%)
T-LBL 2 (11.1%)

1st HSCT type:
Haplo 13 (72.2%), MSD 4 (22.2%), URD 1 (5.6%)

Relapse:
Morphological 16 (88.9%)
MRD+ only 2 (11.1%)

BM+EMD: 12 (66.7%)
Median blasts: 16.0%

NS7CAR-T infusion

Source:
Autologous 13 (72.2%)
Donor 5 (27.8%)

Dose:
1×10^6/kg: 12 (66.7%)
5×10^5/kg: 6 (33.3%)

Time from 1st HSCT:
388 d (170–2463)

BM blasts pre-infusion:
0.8% (0–94.5)

Bridging-Therapie
(median 2 Zyklen)

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Response to CAR-T and toxicity

BM:
MRD-neg CR: 16/17 (94.1%)

EMD:
ORR 9/12 (75.0%)
CR 7 (58.3%)
PR 2 (16.7%)

Toxicity:
CRS: 17/18 (94.4%)
16× grade I, 1× grade IV
ICANS: 1 gr I only
GVHD: 2 (11.1%) gr 3–4

2nd allogeneic HSCT

Age: 29.7 y (13.8–55.4)

All from different donor

Donor:
Haplo 15 (83.3%)
MUD 3 (16.7%)

Conditioning (MAC):
TBI-based: 10
Bu/Mel-based: 8

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3-year outcomes

OS: 46.4%
LFS: 44.4%

Relapse: 16.7%
NRM: 48.0%

Day-100 aGVHD:
grade II–IV: 66.7%
grade III–IV: 44.4%

1-yr cGVHD: 34.7%
mod-severe: 11.1%

CMV d100: 66.7%
EBV d100: 22.2%

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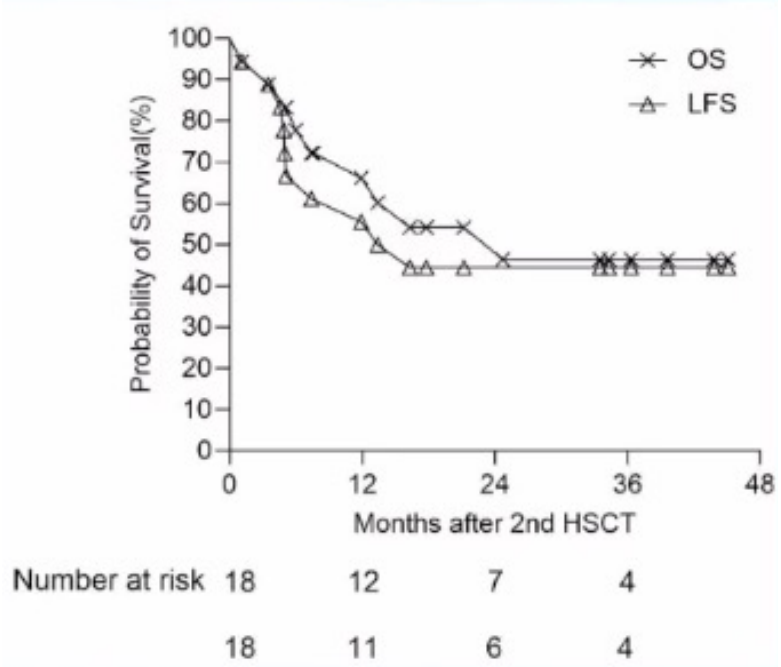

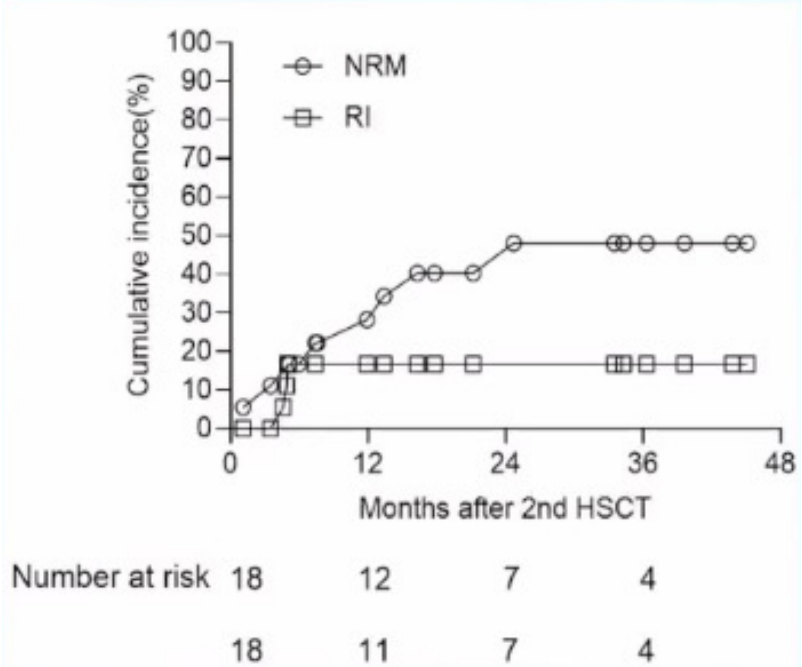

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Extended clinical end genomic evaluation of CTX130, a CD70-directed allogeneic CAR T therapy in adult T cell leukemia/lymphoma: Results from the first-in-human COBALT-LYM Phase I trial

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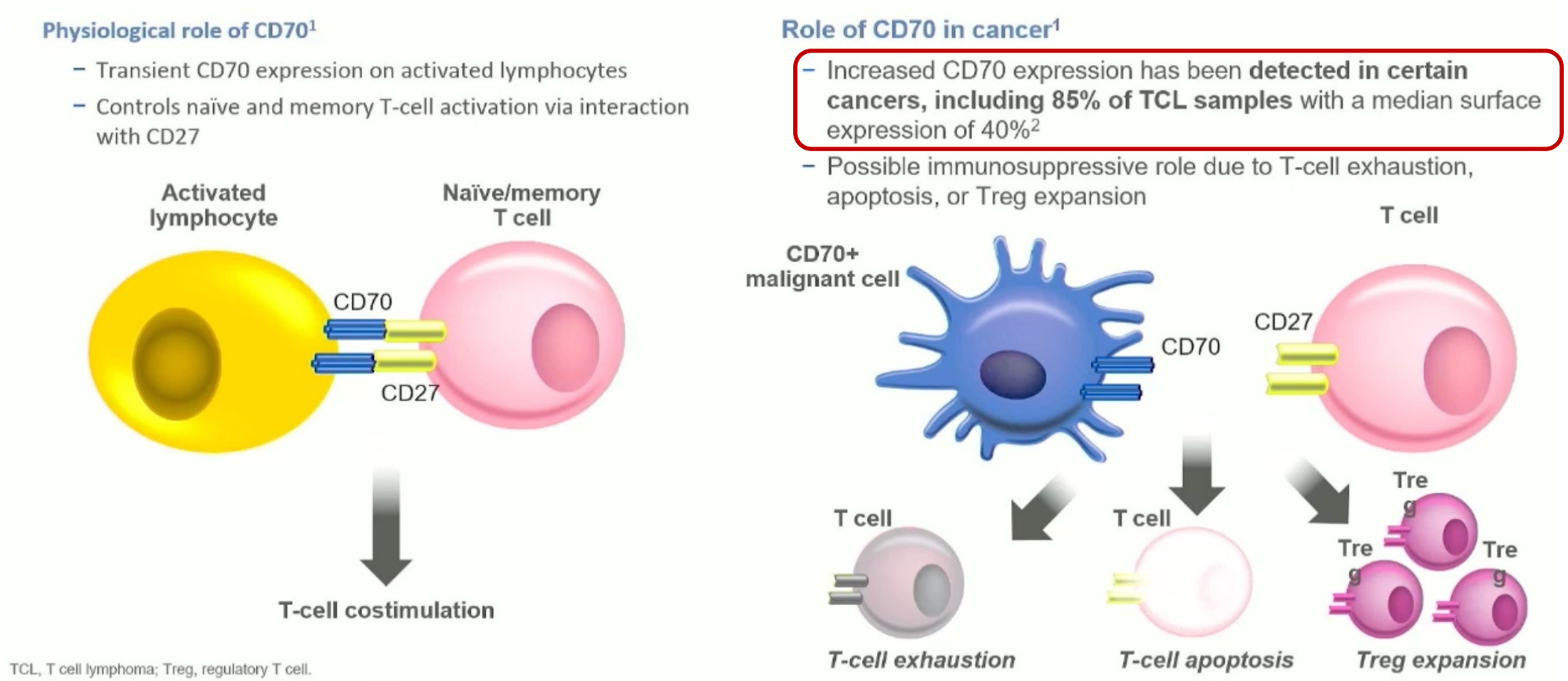
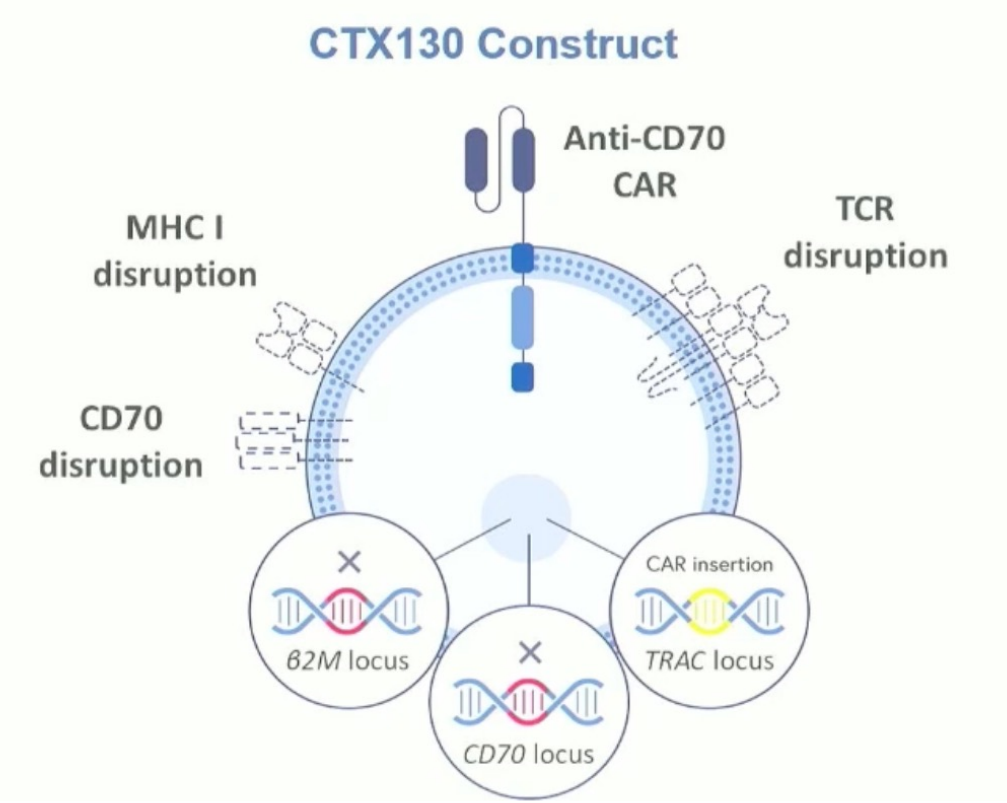


TCL, T cell lymphoma; Treg, regulatory T cell.

Extended clinical end genomic evaluation of CTX130, a CD70-directed allogeneic CAR T therapy in adult T cell leukemia/lymphoma: Results from the first-in-human COBALT-LYM Phase I trial



Why Allogeneic (Off-the-Shelf) CAR T?

- ✓ Healthy donor T cells — no tumor contamination
- ✓ Immediate availability — critical for aggressive ATLL
- ✓ CRISPR edits prevent GvHD and immune rejection
- ✓ Scalable manufacturing for rare/underserved populations
- ✓ Enables re-dosing (multiple infusions permitted)

Why NOT Autologous CAR T in ATLL?

- ✗ Patient T cells are malignant — contamination risk
- ✗ Poor T-cell function in HTLV-1 infected cells
- ✗ Fratricide: CAR T cells destroy each other
- ✗ Time to manufacture not feasible in aggressive disease
- ✗ T-cell aplasia and profound infection risk

Extended clinical end genomic evaluation of CTX130, a CD70-directed allogeneic CAR T therapy in adult T cell leukemia/lymphoma: Results from the first-in-human COBALT-LYM Phase I trial

Phase 1, open-label, multicenter, international, single-arm study (NCT04502446) evaluating the safety and efficacy of CTX130, an investigational, allogeneic CAR-T cell targeting CD70

Key inclusion criteria

- Age ≥18 years
- Confirmed diagnosis of a **CD70+ (≥10% of cells)** T-cell malignancy
- ECOG performance status of 0−1
- Adequate renal, liver, cardiac, and pulmonary organ function
- **Platelets >25,000/mm³** and **absolute neutrophil count >500/mm³**

Key exclusion criteria

- Prior allogeneic SCT
- Prior treatment with any anti-CD70 agents
- History of certain CNS, cardiac, or pulmonary conditions

Primary endpoint

- Part A (Dose Escalation): Incidence of adverse events
- Part B (Cohort Expansion): Objective response rate*

Secondary endpoints

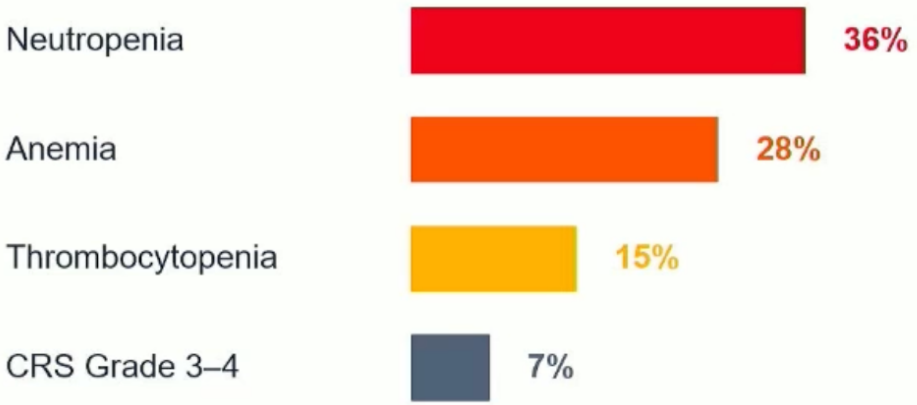
- Progression-free survival
- Overall survival

Extended clinical end genomic evaluation of CTX130, a CD70-directed allogeneic CAR T therapy in adult T cell leukemia/lymphoma: Results from the first-in-human COBALT-LYM Phase I trial

67%
Cytokine Release Syndrome (any grade)

10%
ICANS (all Grade 1–2)

0 GvHD
No graft-vs-host disease (TRAC/β2M knockouts effective)



CRS Breakdown

Grade 1–2: 23 patients (59%)

Grade 3: 2 patients (5%)

Grade 4 (DLT at DL4): 1 patient (3%)

5 AE-related deaths: None CTX130-related

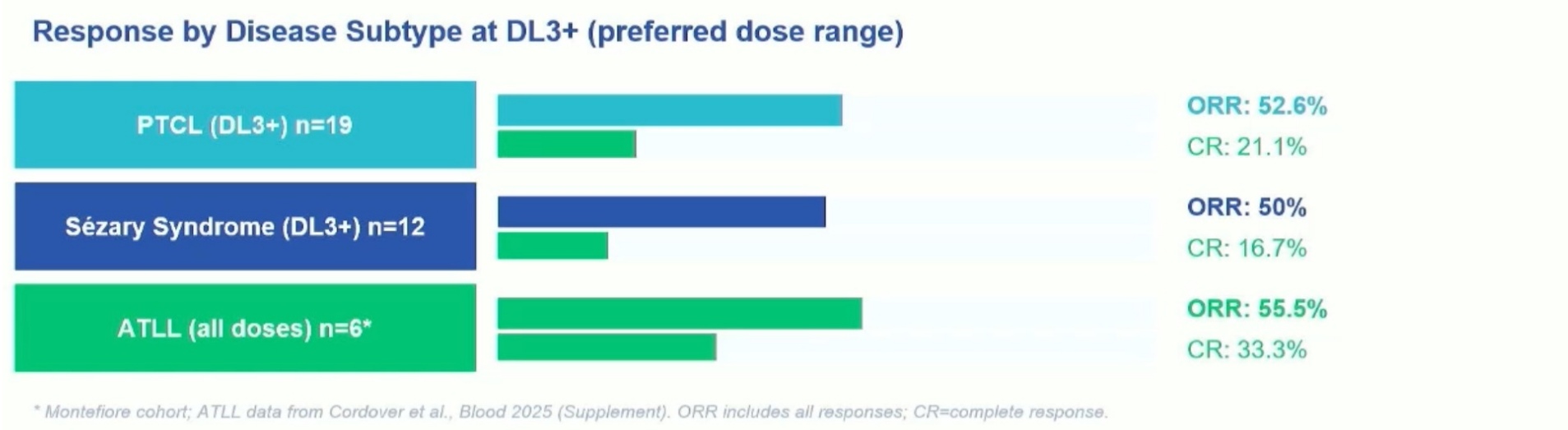
Extended clinical end genomic evaluation of CTX130, a CD70-directed allogeneic CAR T therapy in adult T cell leukemia/lymphoma: Results from the first-in-human COBALT-LYM Phase I trial

46.2%
ORR
(overall, N=39)
95% CI: 30.1–62.8%

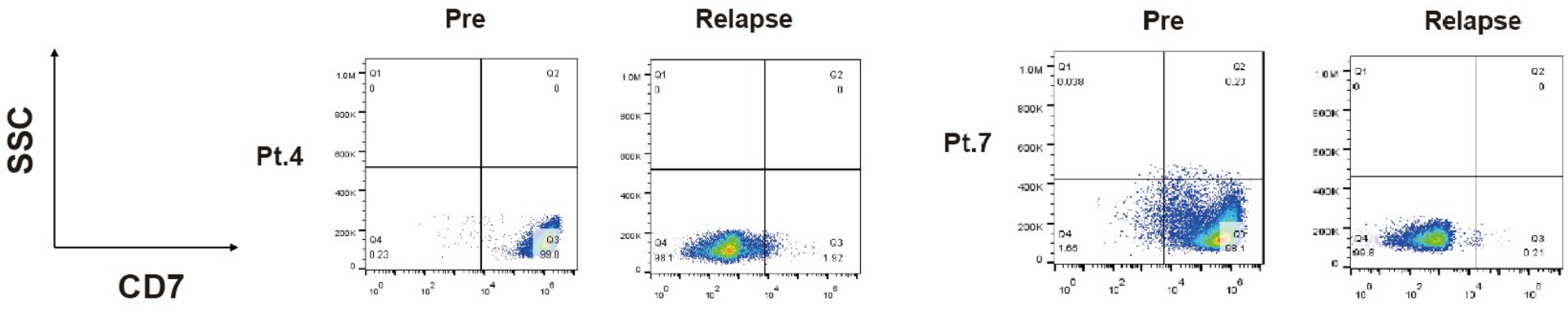
51.6%
ORR at DL3+
(DL≥3×10⁸)
Higher dose = better response

19.4%
Complete Response
(DL3+)
Including ATLL patients

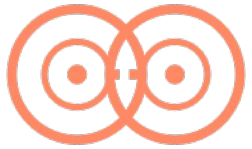
NR
Median DOR
(Sézary, DL3+)
Duration of response not reached



Truncating gene alterations and promotor hypermethylation drive CD7– relapse after CD7 CAR-T therapy



- Verlust der CD7-Expression in 30-50% der Rezidive nach CD7-gerichteter CAR-T-Zelltherapie
- Meist Hypermethylierung der CD7 Promoterregion, seltener trunkierende Mutationen



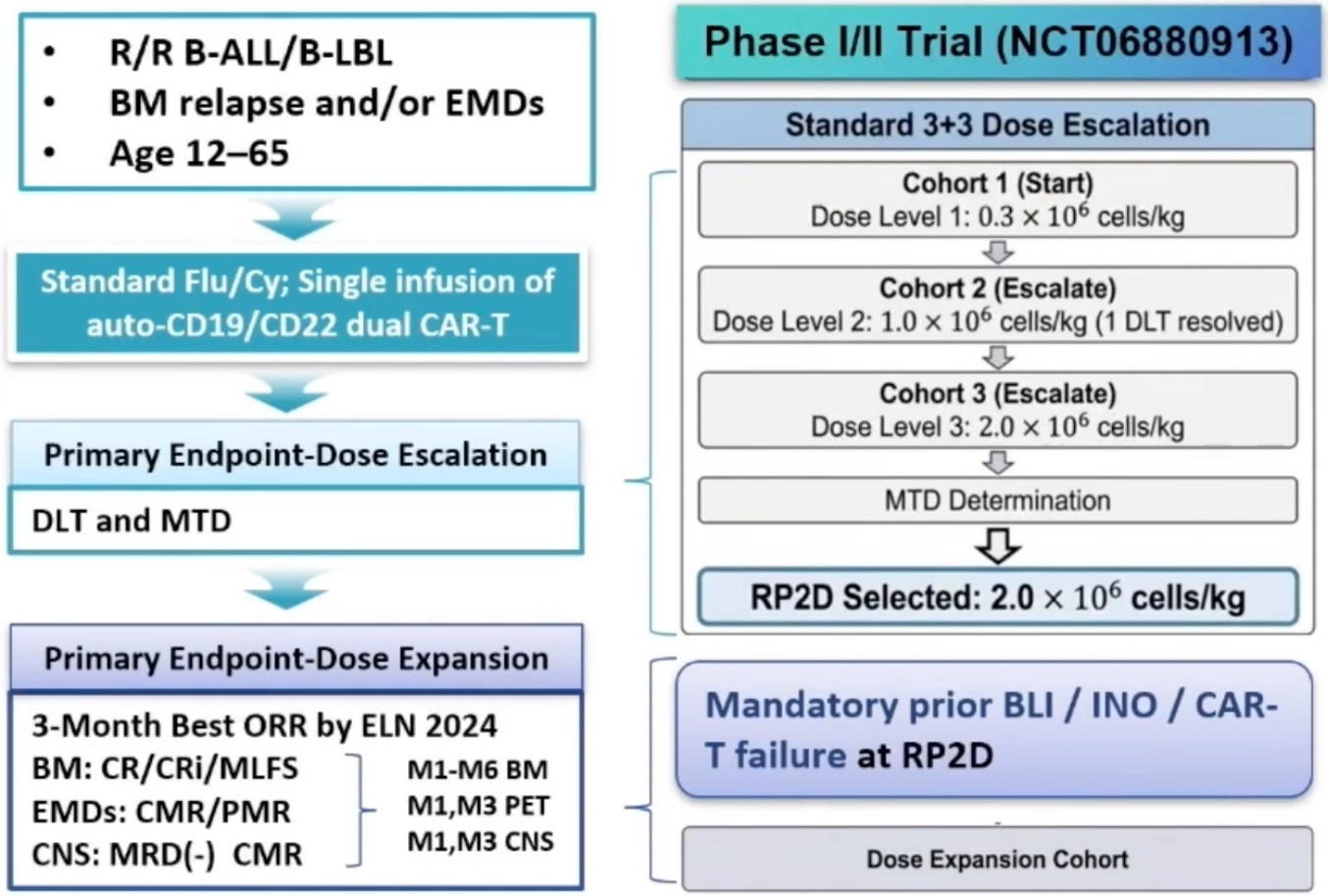
Dual-targeting CAR-Konstrukte

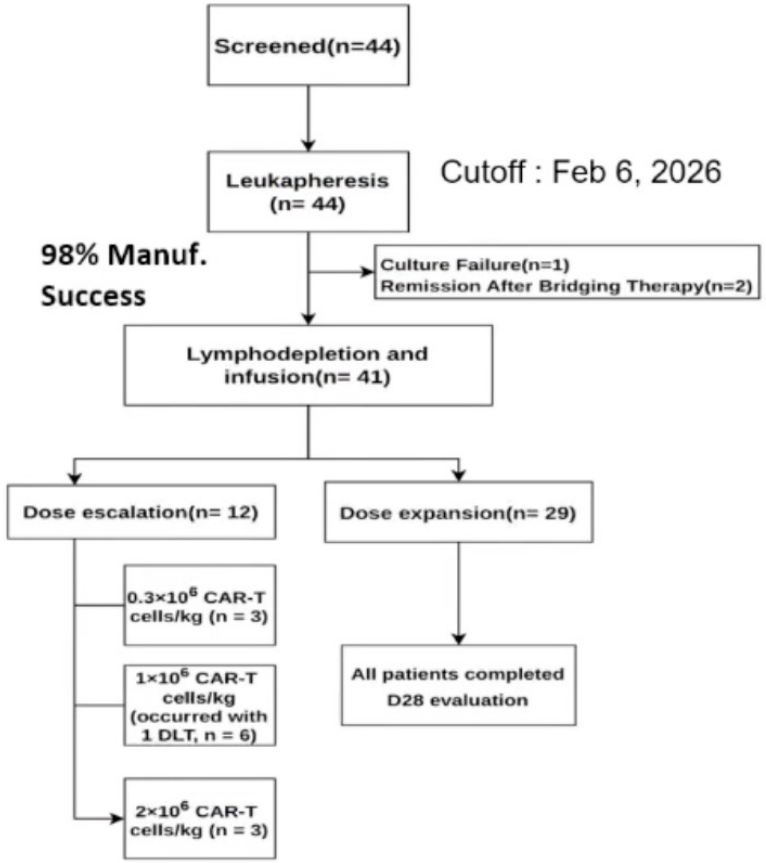
GS2-7: CD19|CD22 CAR-T-Zellen bei der B-ALL nach vorheriger Immuntherapie

GS2-4: Präklinische Entwicklung von CD19|CD84 CAR-T-Zellen

OS18-02: CD19|CD20 CAR-T-Zellen beim r/r DLBCL

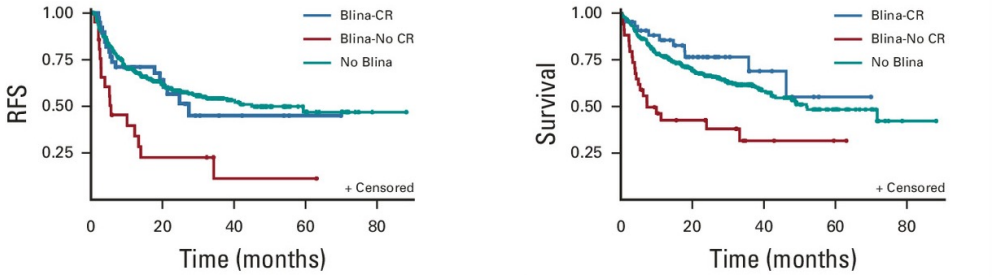
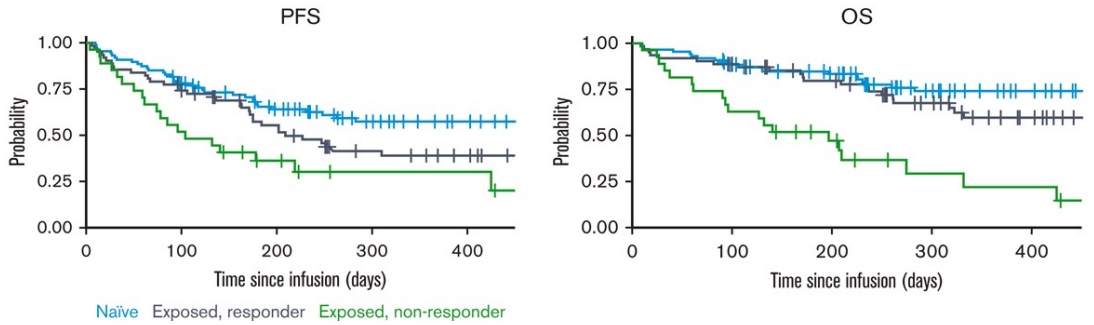
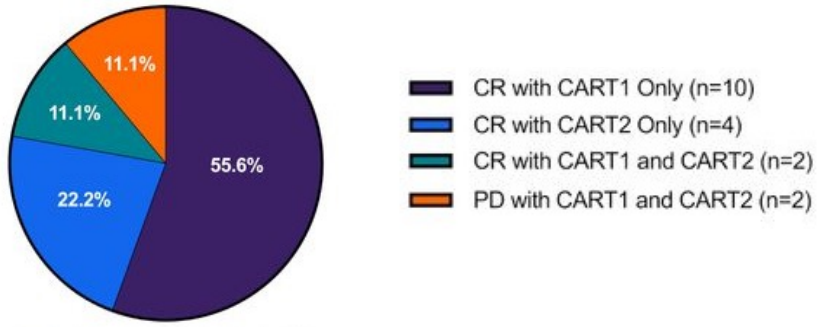
Nanobody-derived CD19/22 Tandem CAR-T therapy as salvage treatment for immuno-refractory B-ALL after Inotuzumab, Blinatumomab or prior single-target CAR-T





Nanobody-derived CD19/22 Tandem CAR-T therapy as salvage treatment for immuno-refractory B-ALL after Inotuzumab, Blinatumomab or prior single-target CAR-T

Outcomes after single target CAR-T cell therapy

Prior Therapy		
Blinatumomab		Myers *et al.*, JCO 2022
Inotuzumab Ozogamicin		Aldoss *et al.*, Blood Advances 2024
CD19 CAR-T		Holland *et al.*, JITC 2022

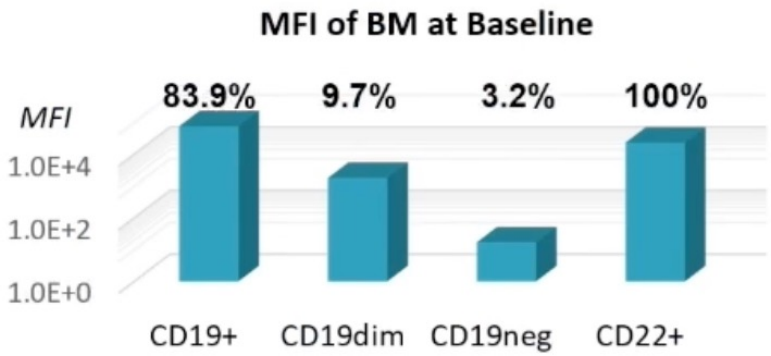
Nanobody-derived CD19/22 Tandem CAR-T therapy as salvage treatment for immuno-refractory B-ALL after Inotuzumab, Blinatumomab or prior single-target CAR-T

Characteristics of Total Cohort	
Age Median(range)	36(14-60)
Male %	56%
Primary Induction Failure %	2.4%
Relapse %	97.6%
Pre-LD active disease	100%
Genetic (%)	
BCR-ABL	24.4%
IKZF1 del/plus	14.6%
Ph-Like	12.2%
EP300::ZNF384	9.8%
TP53	4.9%
KMT2A-r	2.4%

Heavily Pretreated Lines

- **Number of Prior Therapy Lines, median=3**
- **Previous Allo-HSCT, 51.2%**

Exposed	Phase I n (%)	RP2D n (%)
Immunotherapy Exposure	10(83.3%)	29 (100%)
Prior INO	3 (25%)	16(55.2%)
Prior BLI	4 (33.3%)	15(51.7%)
Prior CAR-T	6 (50%)	6(20.6%)
Prior HSCT	5 (41.6%)	20(68.9%)

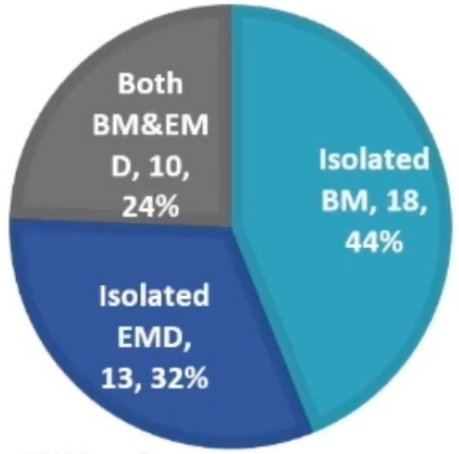


Baseline Disease

BM Blast pre-LD (excl. EMD only)

Median 53% (6-97%)

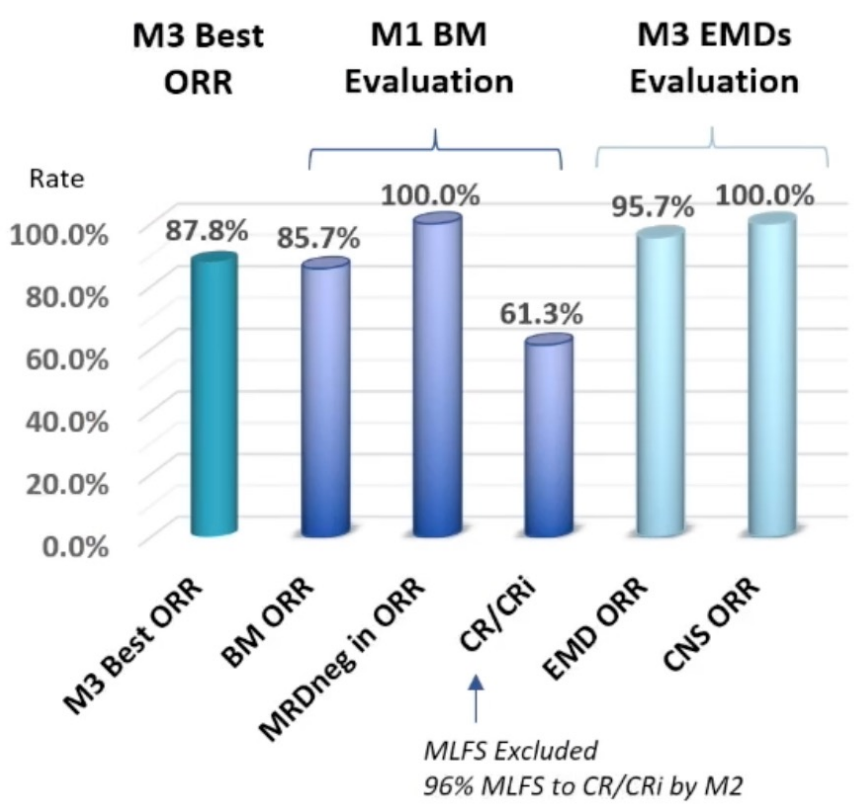
Sites of Lesion pre-LD

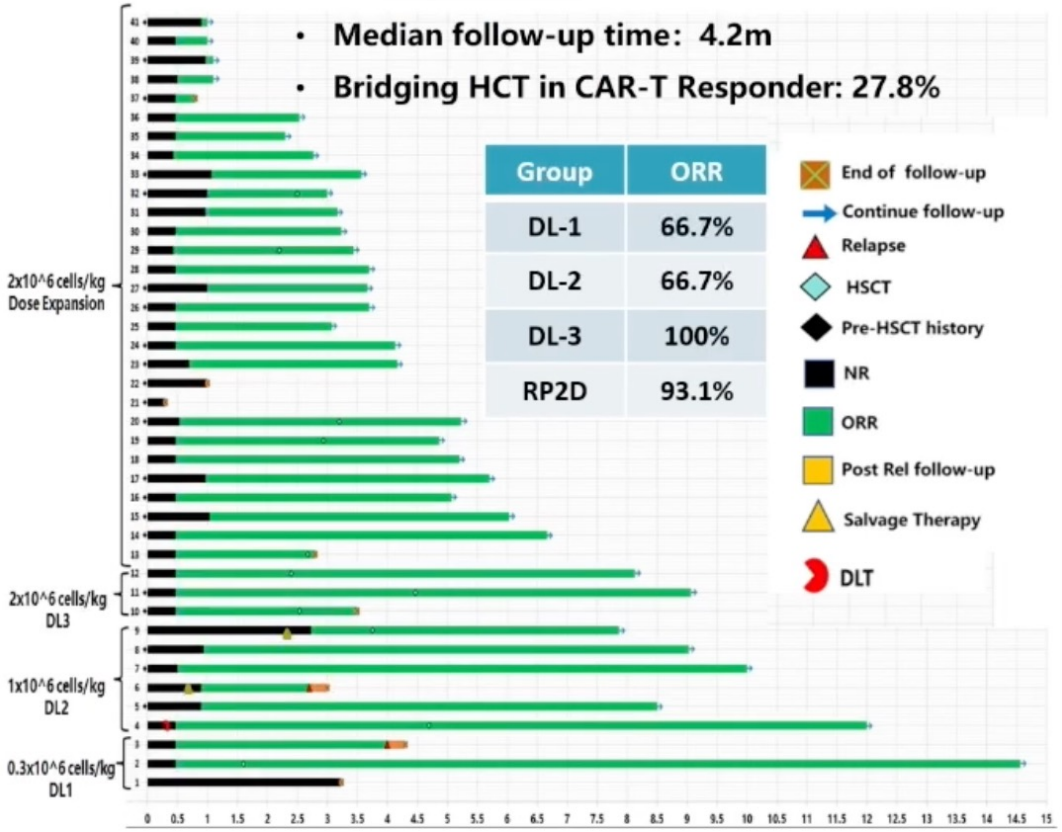


CNS3 n=5

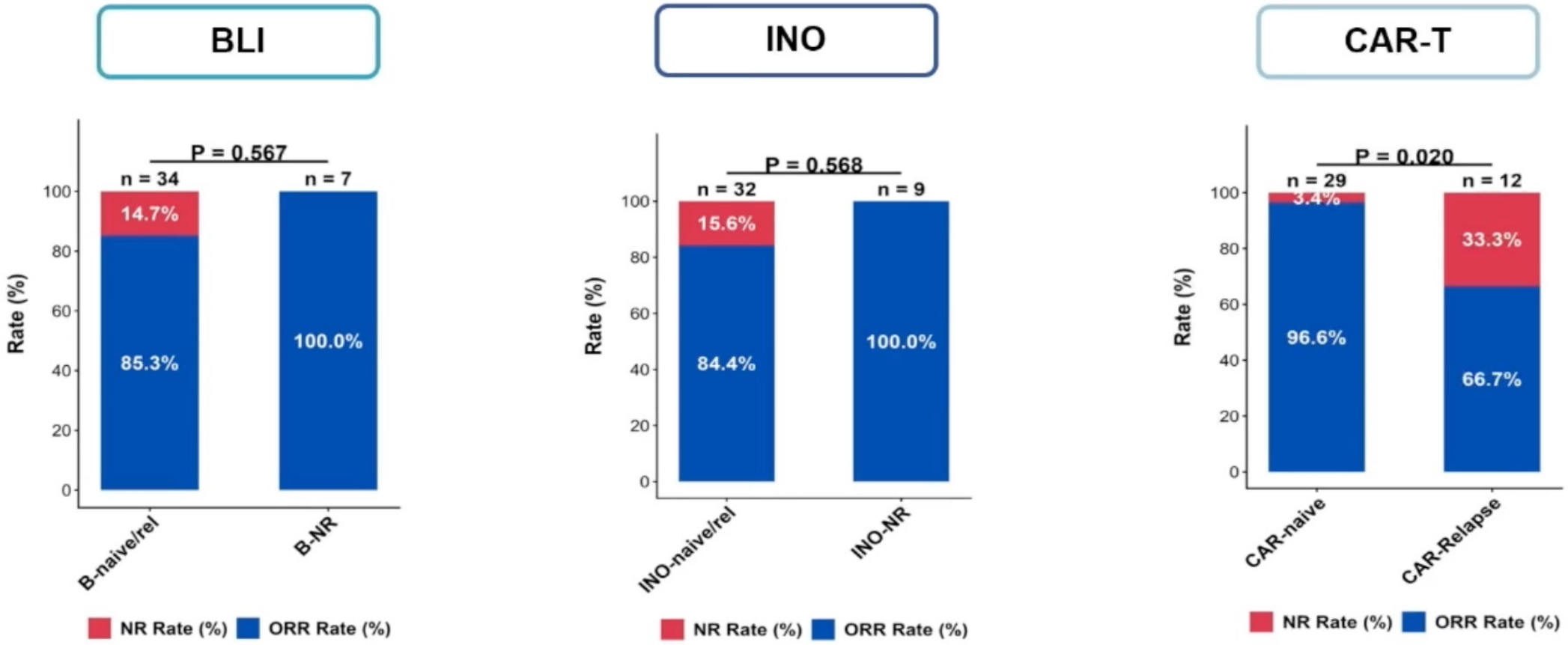
Nanobody-derived CD19/22 Tandem CAR-T therapy as salvage treatment for immuno-refractory B-ALL after Inotuzumab, Blinatumomab or prior single-target CAR-T

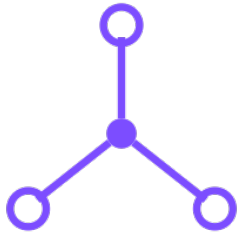
- Günstiges Nebenwirkungsprofil, 5% Grad 3 CRS, keine ICANS





Nanobody-derived CD19/22 Tandem CAR-T therapy as salvage treatment for immuno-refractory B-ALL after Inotuzumab, Blinatumomab or prior single-target CAR-T





Neue Anwendungsgebiete

OS2-3: CAR-T-Zelltherapie + AutoHSCT beim r/r ZNS-Lymphom

A080: Anti-BCMA CAR-T-Zelltherapie bei der AL-Amyloidose

Autoimmun-Erkrankungen (nächster Vortrag – Jörg Henes)

Gao *et al.* | Peking, China

HSCT combined with CAR-T cell therapy significantly improves progression-free survival in relapsed / refractory CNS lymphoma

Characteristics	Patient details (n=153)
Age	
Median(range)	56 (19-79)
≥60y,n(%)	48 (31.4)
Sex	
Male,n(%)	78 (50.9)
ECOG PS, n(%)	
≤2	112 (73.2)
>2	41 (26.8)
Histologic subtype	
PCNSL	81 (52.9)
SCNSL	72 (47.1)
DLBCL	55(76.4)
Site of CNS involvement	
Parenchyma	112 (73.2)
Cerebrospinal fuid	14 (9.1)
Both	27 (17.6)
Previous treatment lines, n(%)	
≥3	83 (54.2)
Prior regimen	
HD-MTX	130 (84.9)
BTKi	98 (64.0)
ASCT	28 (18.3)

Bridging therapy

median: 2 cycles (0–5)
ORR **71%** (CR **84**/153; PR **24**/153)

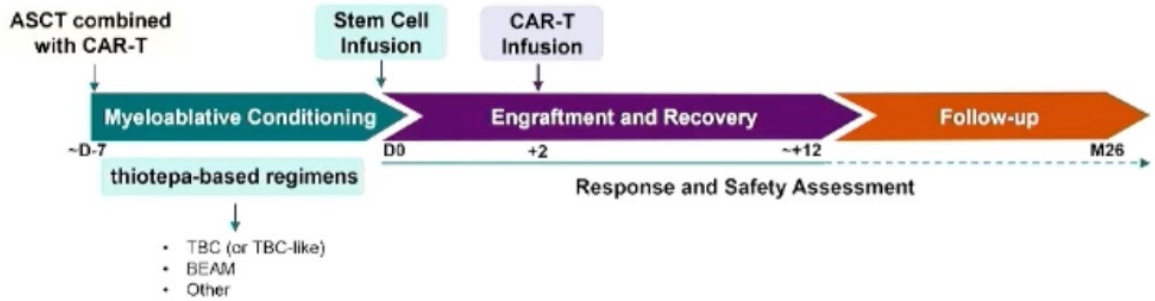
Based on bridging response, patients were classified into 2 gourps:

Bridging-Effective (CR/PR)
Bridging-Ineffective (SD/PD)

HSCT combined with CAR-T cell therapy significantly improves progression-free survival in relapsed / refractory CNS lymphoma

In the BE group, 49%(53/108) underwent ASCT combined with CAR-T therapy.

BE group	CAR-T (n=55)	ASCT combined with CAR-T (n=53)	p-value
Age(>60)	27/55(49.1%)	6/53(11.3%)	0.000*
Sex(male)	26/55(47.3%)	26/53(49.1%)	0.853
Risk category			0.099
-Low risk	14/55(25.5)	21/53(39.6%)	
-Intermediate risk	34/55(61.8%)	28/53(52.8%)	
-High risk	7/55(12.7%)	4/53(7.5%)	
ECOG ≥2	22/55(40.0%)	21/53(39.6%)	0.968
Histology			0.455
-PCNSL	35/55(63.6%)	30/53(56.6%)	
-SCNSL	20/55(36.4%)	23/53(43.4%)	
TP53 mutation	6/29(20.7%)	8/23(34.8%)	0.255
Prior regimen			
-HD-MTX	48/55(87.3%)	51/53(96.2%)	0.090
-BTK inhibitor	35/55(63.6%)	35/53(66.0%)	0.794
-Auto-HCT	14/55(25.5%)	9/53(17.0%)	0.282
Previous regimen lines≥3	28/55(50.9%)	30/53(56.6%)	0.553



1. The mean infused dose of CAR-T cells was 1.5×10^6 cells/kg.

2. Median time to neutrophil engraftment：12 days
   Median time to platelet engraftment：12 days

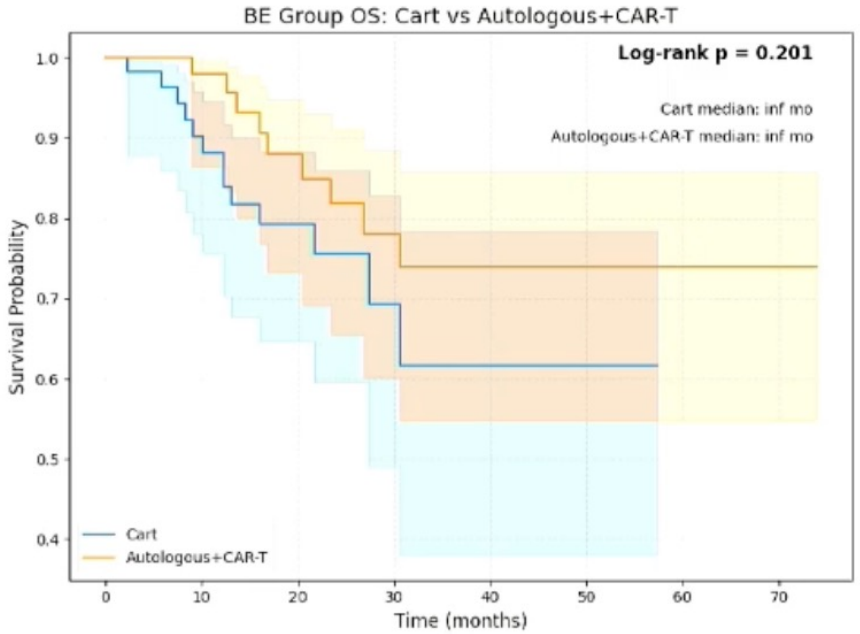
HSCT combined with CAR-T cell therapy significantly improves progression-free survival in relapsed / refractory CNS lymphoma

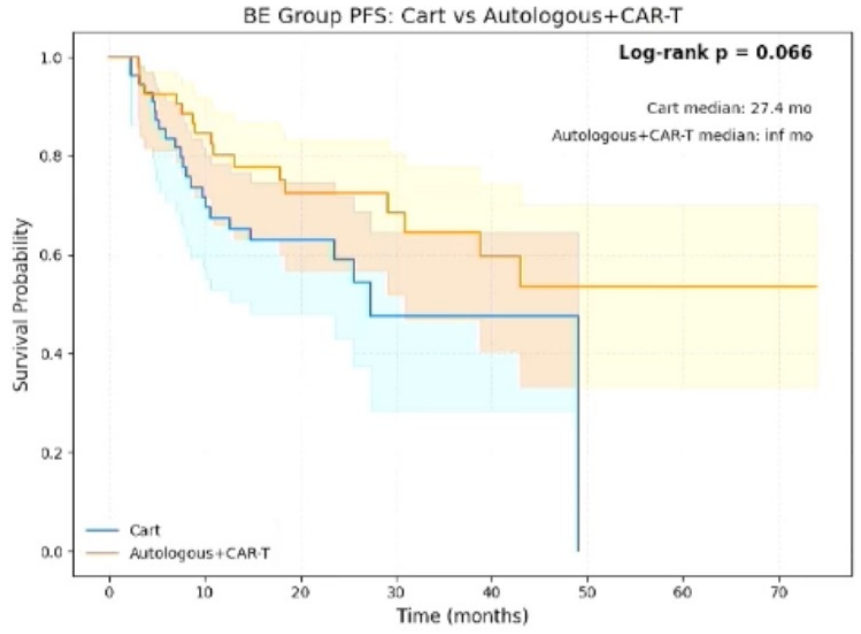
Safety	Patient details (n=153)
CRS	
Any CRS	105 (69%)
Grade ≥3	6
ICANS	
Any ICANS	21 (14%)
Grade ≥3	5

BE group	CAR-T (n=55)	ASCT combined with CAR-T (n=53)
CRS		
Any CRS	37 (67%)	41 (77%)
Grade ≥3	1	5
ICANS		
Any ICANS	10 (18%)	2 (4%)
Grade ≥3	0	1

HSCT combined with CAR-T cell therapy significantly improves progression-free survival in relapsed / refractory CNS lymphoma

BE group	CAR-T (n=55)	ASCT combined with CAR-T (n=53)
Median OS (months)	Not Reached	Not Reached
Median PFS (months)	27	57





und am Ende....

Vielen Dank für Ihre Aufmerksamkeit

Universitätsklinikum Tübingen