



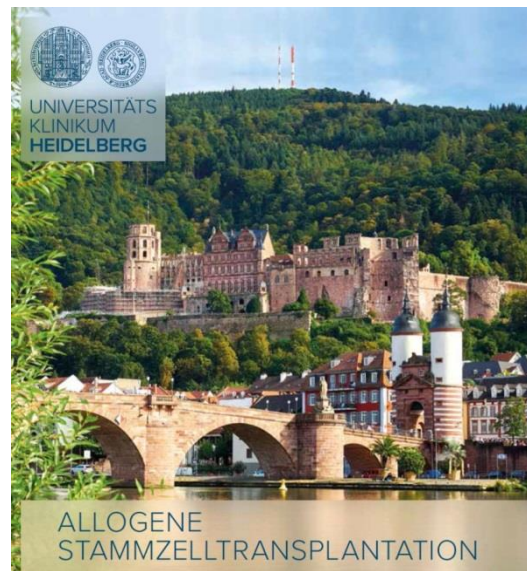
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Sektion Stammzelltransplantation: Jahresbericht 2021

Prof. Dr. Peter Dreger

Klinik Innere Medizin V

Universitätsklinikum Heidelberg



2020



2021/22

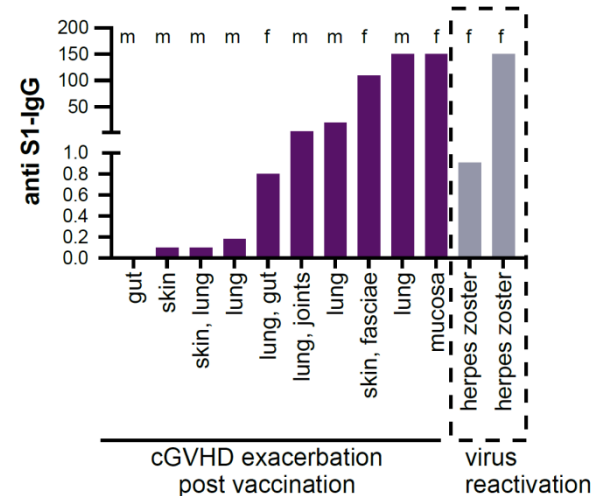
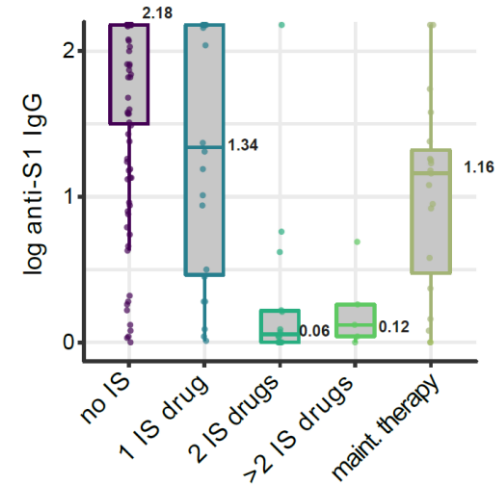


Article

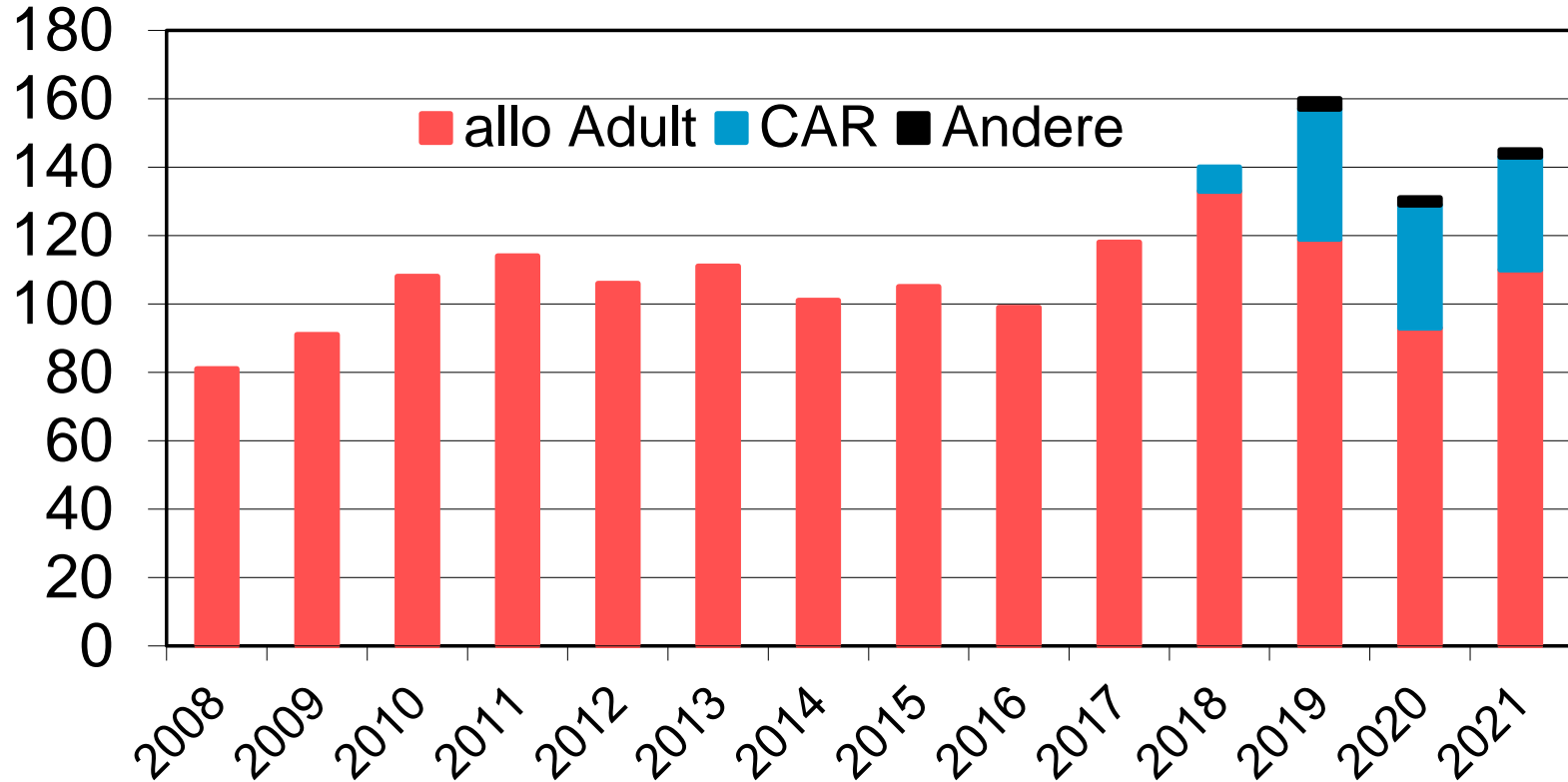
Humoral Responses and Chronic GVHD Exacerbation after COVID-19 Vaccination Post Allogeneic Stem Cell Transplantation

Caroline Pabst ^{1,*}, Louise Benning ², Nora Liebers ¹, Maïke Janssen ¹, Leandra Caille ¹, Claudius Speer ², Lixiazi He ¹, Maria-Luisa Schubert ¹, Laura Simons ¹, Ute Hegenbart ¹, Stefan Schönland ¹, Aleksandar Radujkovic ¹, Michael Schmitt ¹, Paul Schnitzler ³, Carsten Müller-Tidow ¹, Sascha Dietrich ¹, Peter Dreger ¹ and Thomas Luft ¹

- Impfung >100d post alloHCT
- N=167
- 81% response, abhängig u.a. von
 - Impfstoff (mRNA besser)
 - Umfang aktueller Immunsuppression.
- **cGVHD-Exazerbation bei 6%**



Zelluläre Immuntherapien (Arten)

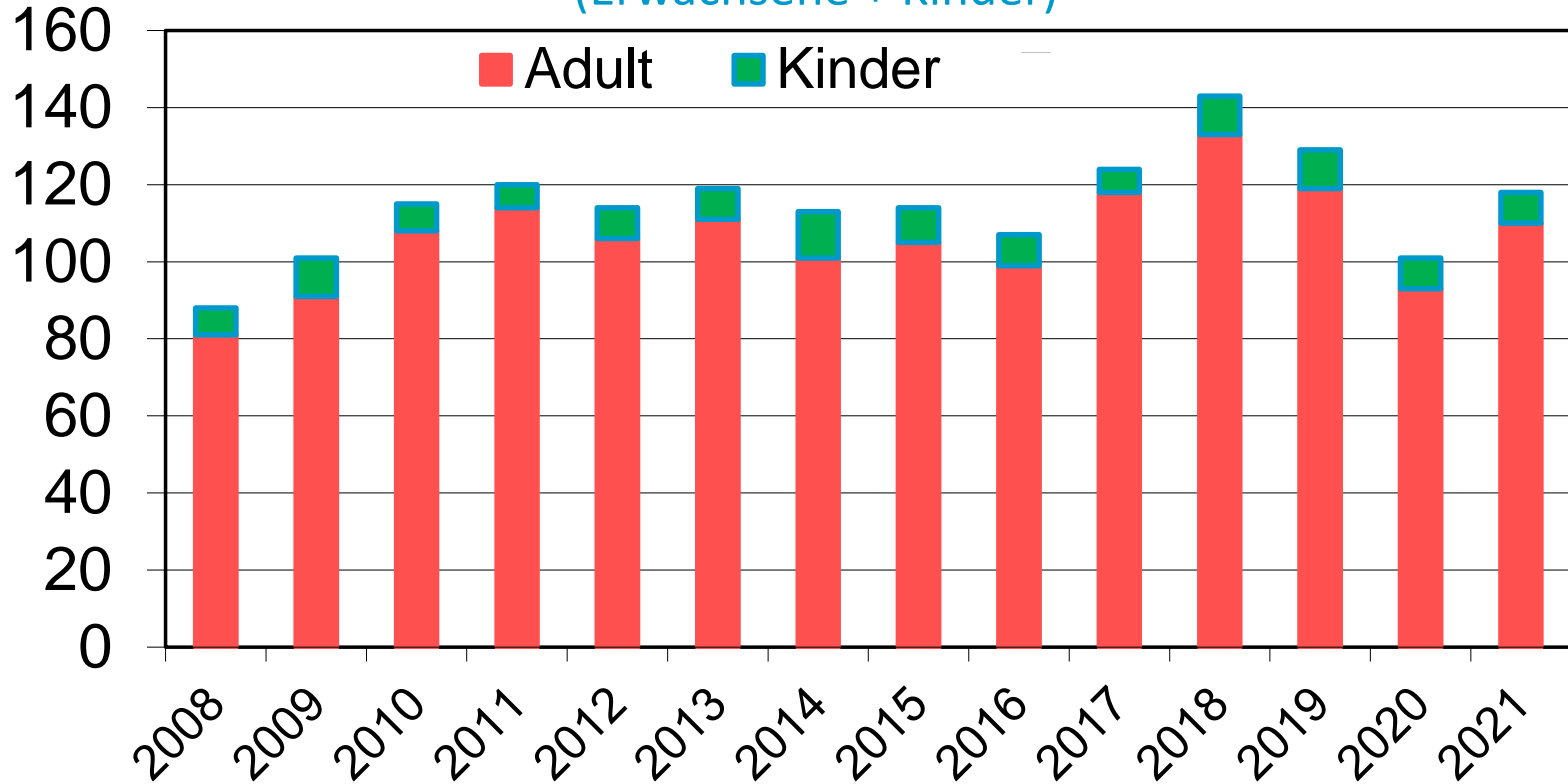


Kennzahlen

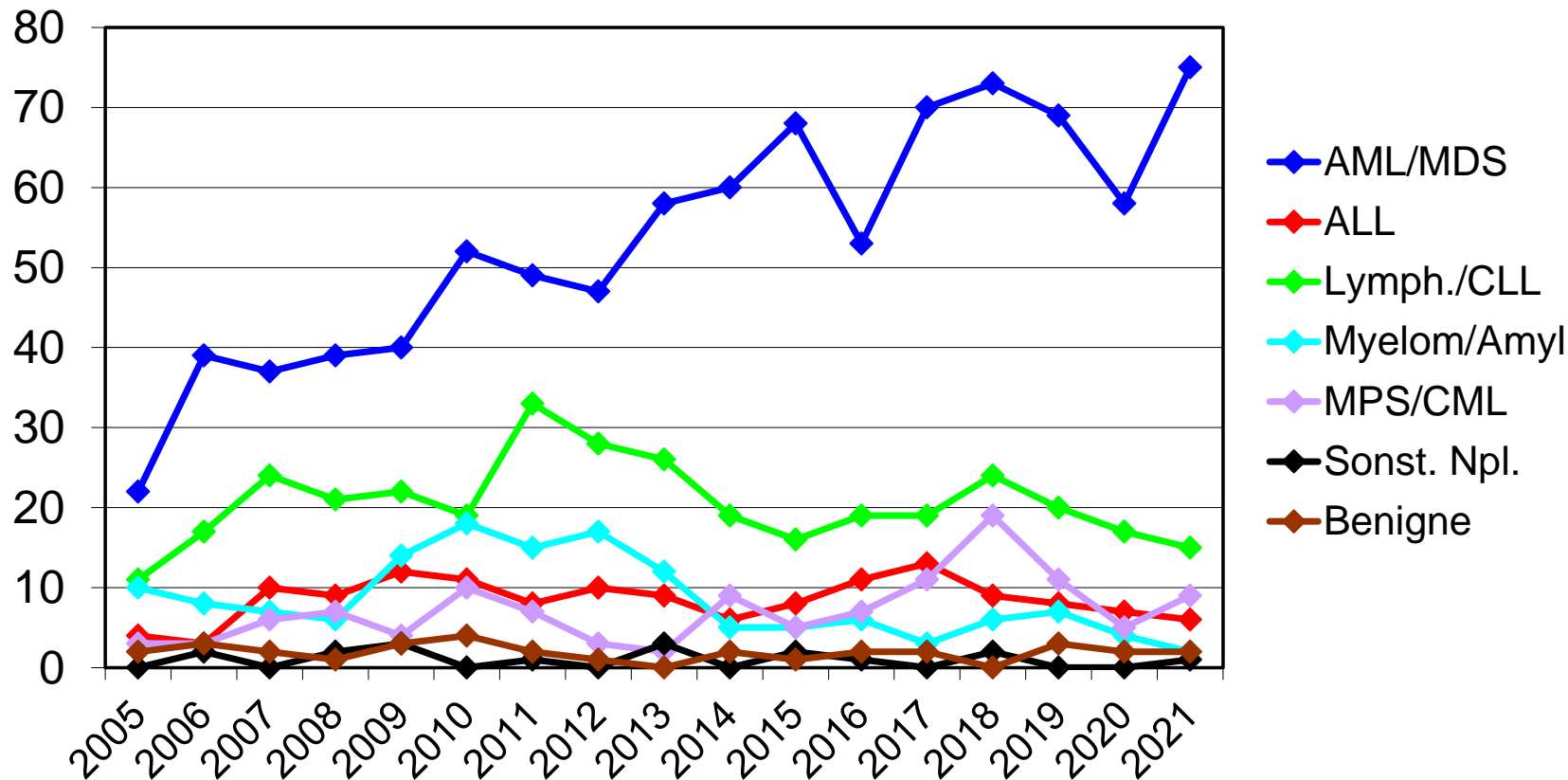
alloHCT

Allogene Transplantationen UKHD 2021

(Erwachsene + Kinder)

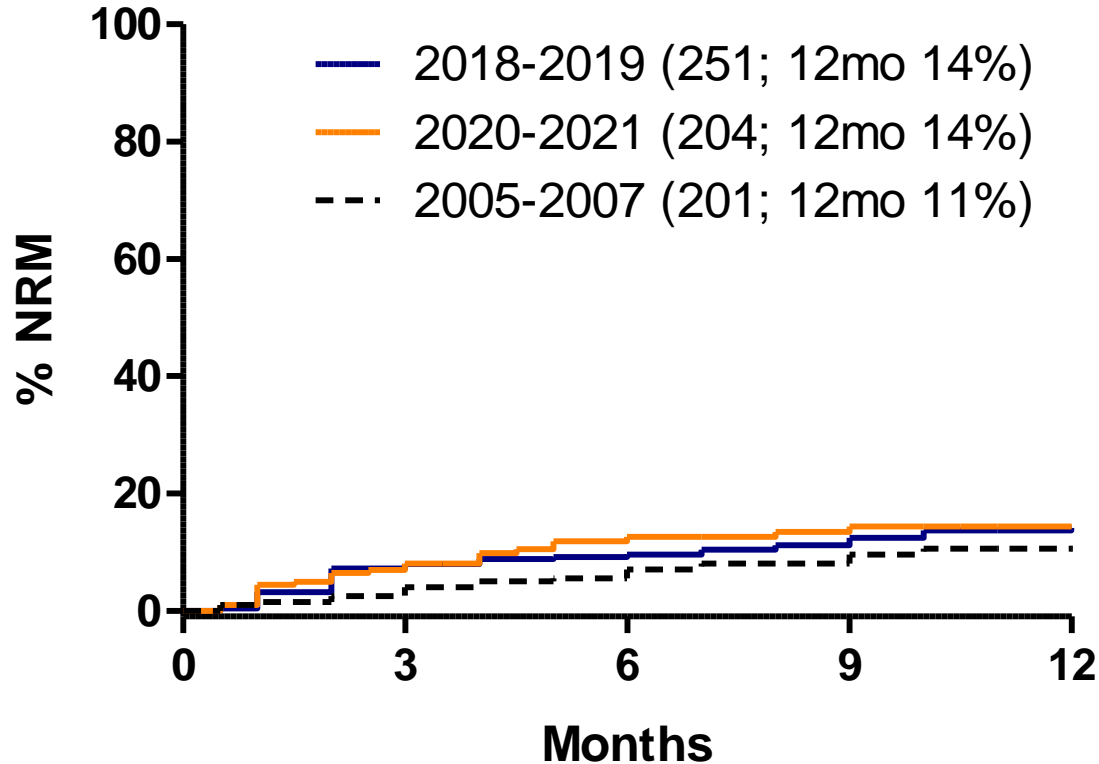


Indikationen

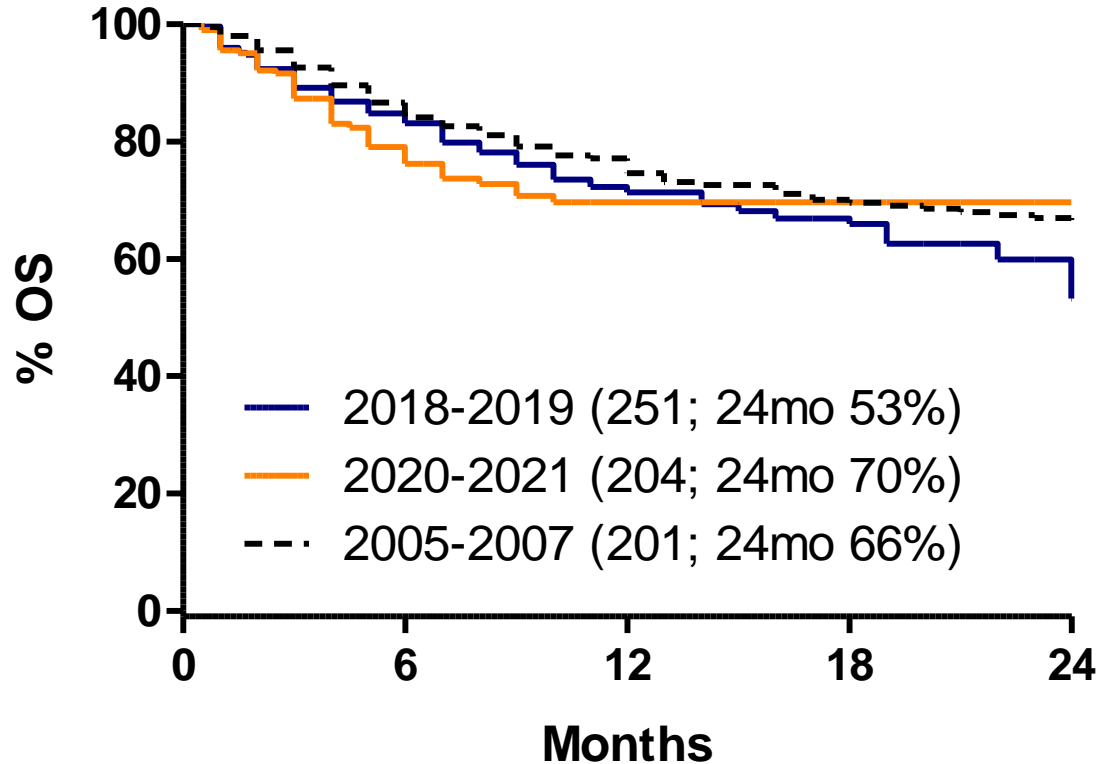


Benchmarking alloHCT

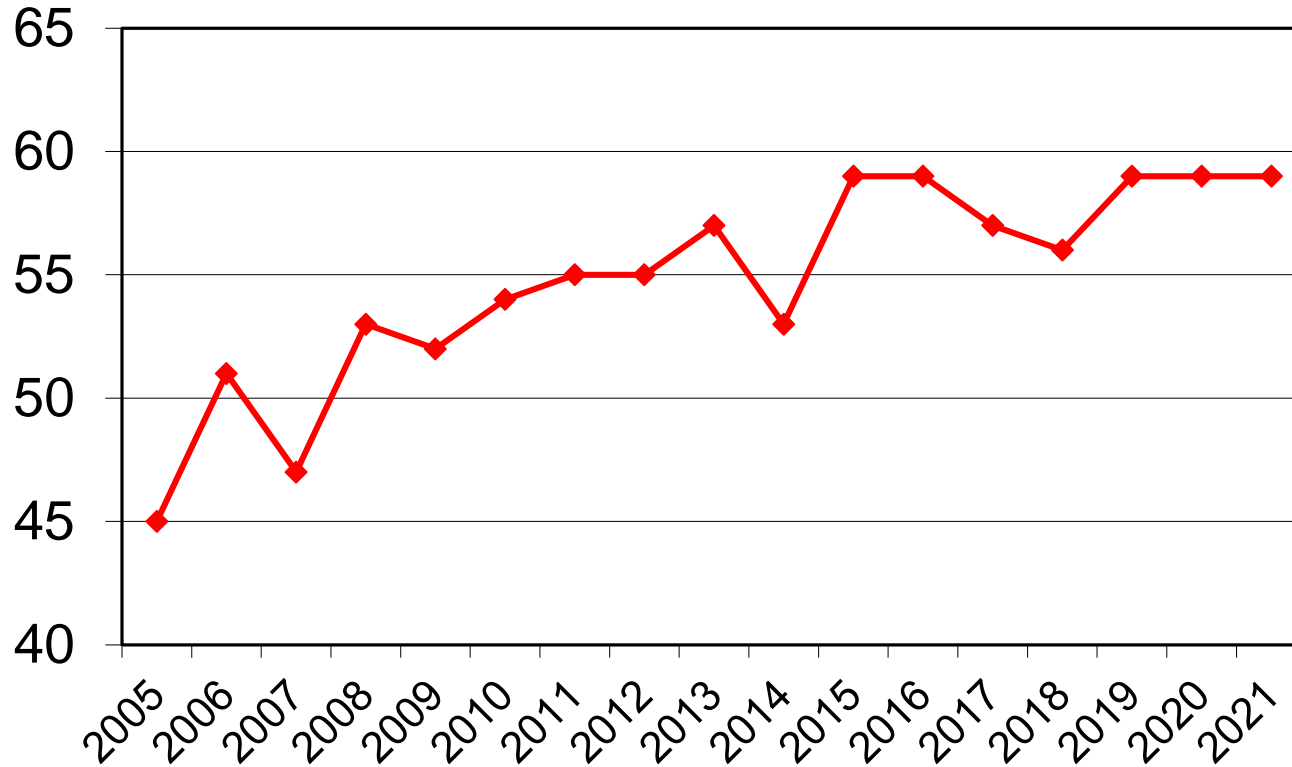
Non-relapse mortality by period



Overall survival by period



Medianes Patientenalter



2021:

Median: 59J

Range: 22-74

≥70J: 8 Pt.



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DGHO
DEUTSCHE GESELLSCHAFT FÜR
HÄMATOLOGIE UND MEDIZINISCHE ONKOLOGIE

OeGHO

Österreichische Gesellschaft für
Hämatologie & Medizinische Onkologie

SSMO
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SGKSSH

JAHRESTAGUNG

Jahrestagung der Deutschen, Österreichischen
und Schweizerischen Gesellschaften für
Hämatologie und Medizinische Onkologie

www.haematologie-onkologie-2020.com

2020

VIRTUELL



9.–11. Oktober

Feasibility and Safety of Venetoclax-based Bridging to Allogeneic Hematopoietic Stem Cell Transplantation (alloHCT) for High-Risk Acute Myeloid Leukemia (AML)

Abstract 605

Caroline Pabst, Tim Sauer, Peter Stadtherr, Ute Hegenbart, Thomas Luft, Michael Hundemer, Richard F. Schlenk, Carsten Müller-Tidow, Peter Dreger

Department of Hematology, Oncology and Rheumatology, University of Heidelberg, Heidelberg, Germany





The majority of patients receiving V/V salvage or 1st line proceed to alloHCT (n=19)

Outcome & genetic risk	V/V salvage		V/V 1st line		Σ	
	n	%	n	%	n	%
ORR (CR/Cri)	9 (7)	75 (58%)	5 (3)	71% (43%)	14 (10)	74% (53%)
proceeding to HCT	10	83%	4	57%	14	70%
genetic risk (ELN)						
<i>favorable</i>	2		0		2	11%
<i>intermediate</i>	5		1		6	32%
<i>adverse</i>	5		6		11	58%
age at diagnosis (median, range)	57	24-76	69	62-75		60y



Survival and remission status

Survival & status at last follow-up	VEN after salvage	VEN 1st line	VEN salvage + 1st line	
	n	n	n	%
alive at time of analysis	8/10	3/4	11/14	79%
alive and in CR	6	3	9	64%
alive with relapse	2	0	2	14%

Median follow up from alloHCT (alive): 201 days (74-609)

Median follow up from search (alive): 303 days (161-677)

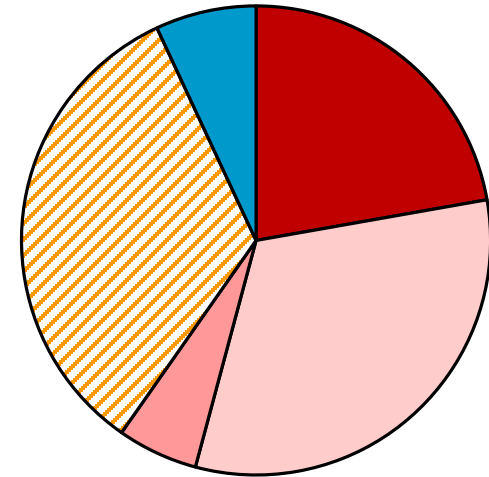
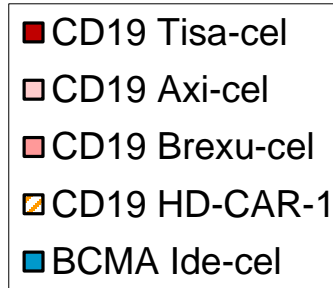
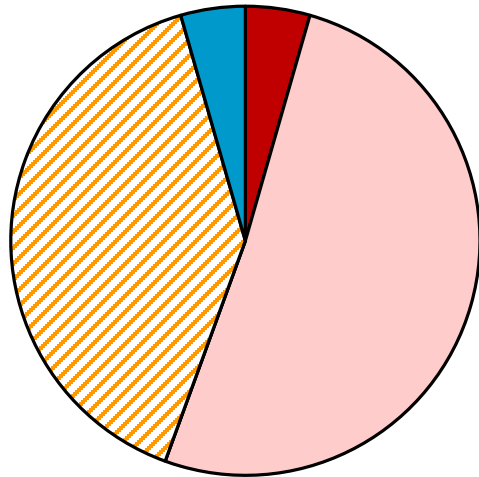
Kennzahlen

CARTs

Verwendete CARTs (2018-2021)

2018-2019 (n=45)

2020-2021 (n=72)



Clinical Trial Code: HD-CAR-1
EudraCT: 2016-004808-60

Trial Protocol
Version V02 D01 – 16.02.2018

Page 1 of 110
CONFIDENTIAL



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CLINICAL TRIAL PROTOCOL

[3G-CART therapy for CD19+ lymphoid disease]

EudraCT No. 2016-004808-60

[V02 D01 /Date 2018-02-16]

**Treatment of patients with relapsed or refractory CD19+ lymphoid disease with T lymphocytes transduced by RV-SFG.CD19.CD28.4-1BBzeta retroviral vector –
A unicenter Phase I/II clinical trial**

HD-CAR-1: PFS & OS per stratum (Mar 4, 2022)

	ALL	Lymphoma
N	13	19
Age, years	37 (21-67)	61 (44-75)
Diagnosis	ALL	
CLL		7
LBCL (transformed)		6 (5)
MCL		4
FL		2
Dose level		
I-III	10	10
IV-VI	3	9
CRS ≥3	-	1
ICANS ≥3	-	-
ORR (CR)		
all DLs	83% (83%)	42% (37%)
DLs IV-VI	-	55% (55%)



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3 Jahre zugelassene CARTs in Heidelberg – Ergebnisse 05.11.2021

Prof. Dr. Peter Dreger

Innere Medizin V

Universitätsklinikum Heidelberg



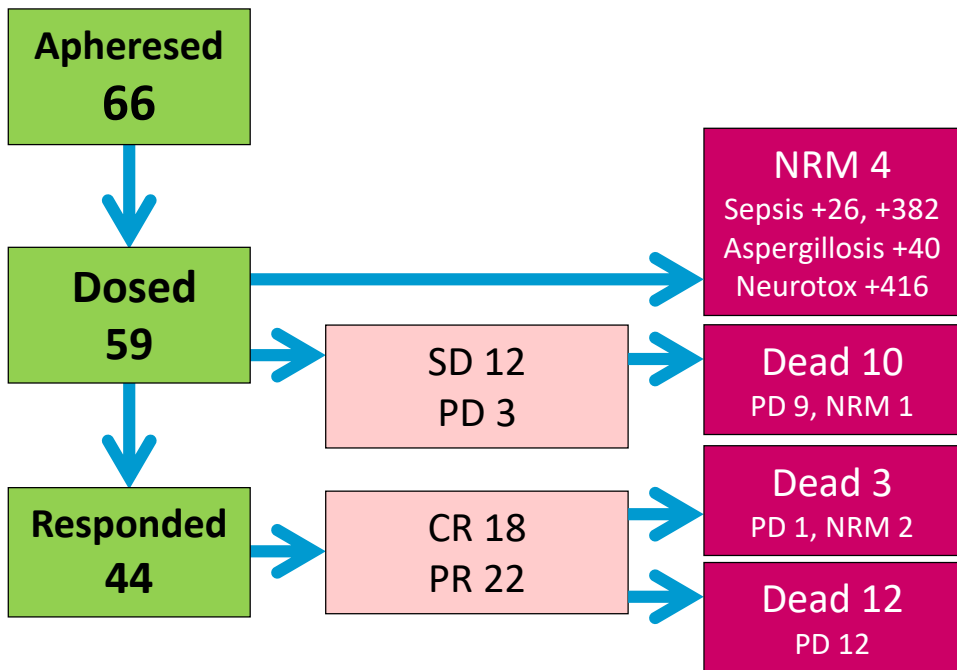
5th CELL THERAPY SYMPOSIUM

November 3 to 6, 2021

Medical Clinic, Grand Auditorium and
Seminar Rooms
Im Neuenheimer Feld 410
69120 Heidelberg

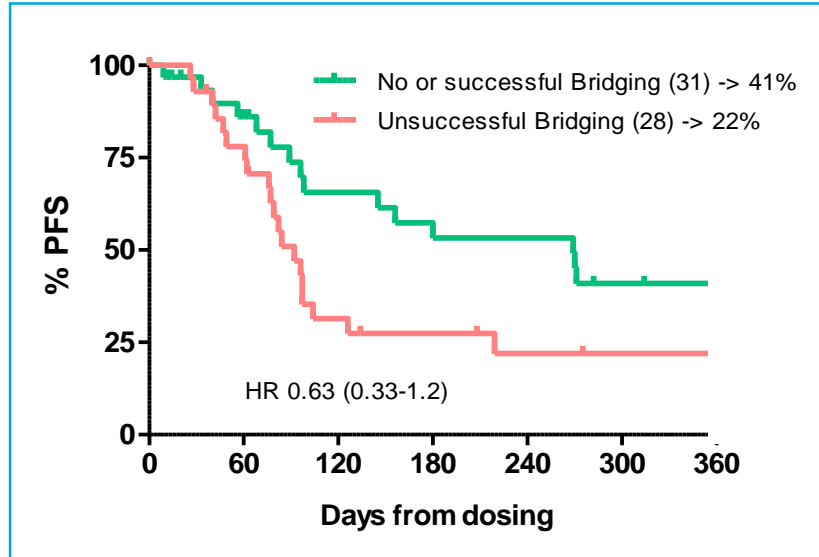
Department of Medicine V (Hematology,
Oncology and Rheumatology)

Heidelberg real-world LBCL: Response

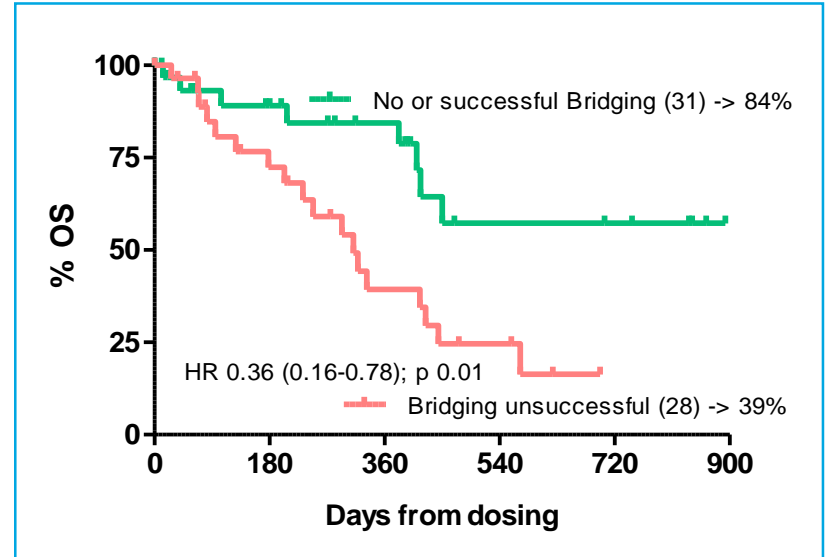


Heidelberg real-world LBCL: PFS & OS by Bridging

PFS



OS



Wissenschaft

3861 Easix Predicts Severe Cytokine Release Syndrome (CRS) and Immune Effector Cell–Associated Neuro–Toxicity Syndrome (ICANS) in Patients Receiving CD19–Directed Chimeric Antigen Receptor T (CAR–T) Cell Therapy

Program: Oral and Poster Abstracts

Session: 704. Cellular Immunotherapies: Clinical: Poster III

Hematology Disease Topics & Pathways:

Lymphoid Leukemias, ALL, Biological, Cytokine Release Syndrome, CLL, Lymphomas, Neurotoxicity, Clinical Research, Health Outcomes Research, B Cell Lymphoma, Chimeric Antigen Receptor (CAR)–T Cell Therapies, Clinically Relevant, Patient–Reported Outcomes, Diseases, Therapies, Lymphoid Malignancies, Adverse Events

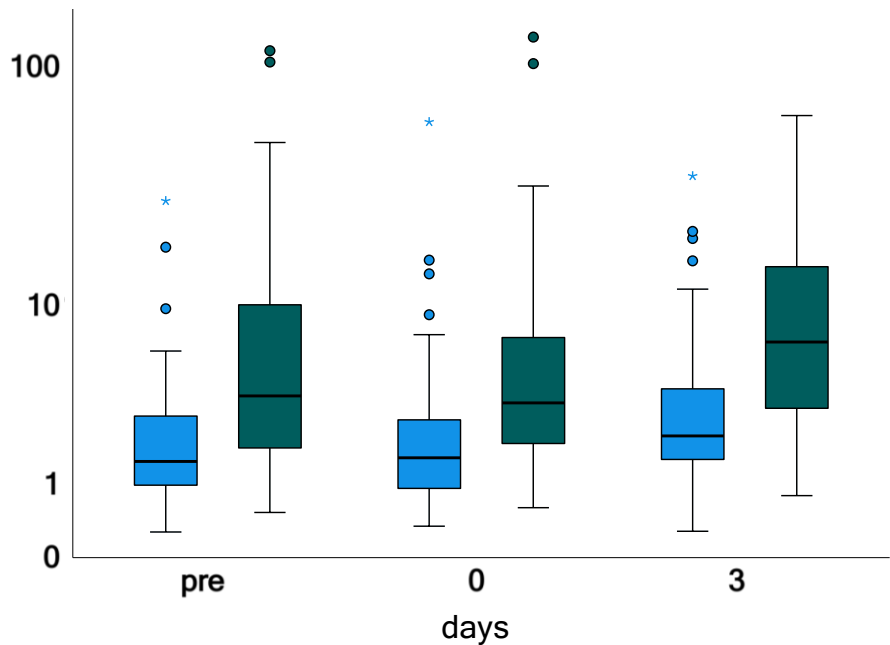
Monday, December 13, 2021, 6:00 PM–8:00 PM

Felix Korell¹, Olaf Penack, MD²*, Michael Schmitt, MD¹, Carsten Müller–Tidow, MD¹*, Lars Bullinger², Peter Dreger, MD¹ and Thomas Luft, MD, PhD¹*

Figure 1

A) training

CRS / ICANS 0-2
EASIX CRS / ICANS ≥ 3



B) validation

CRS or ICANS 0-2
EASIX CRS or ICANS ≥ 3

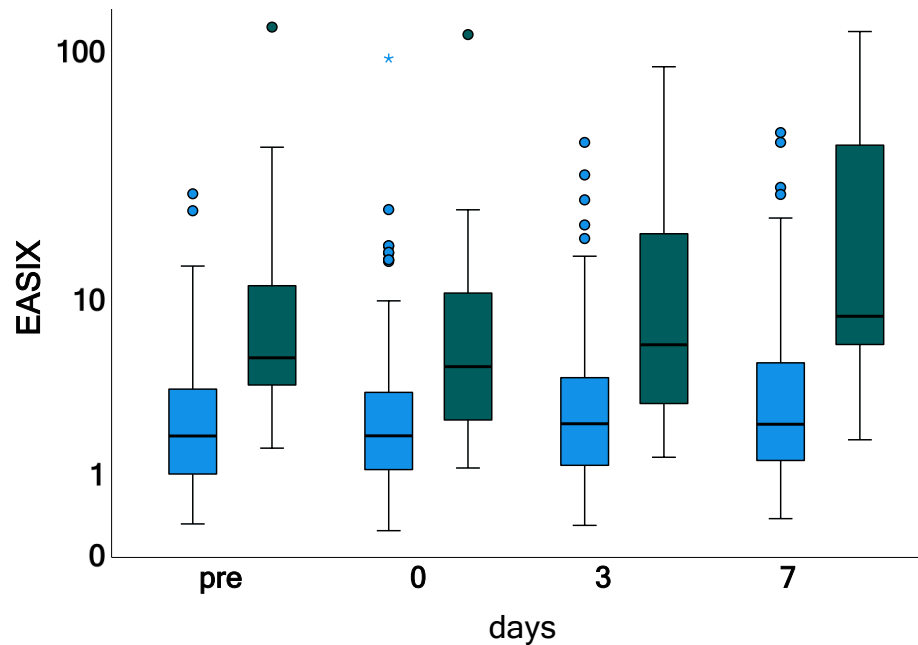
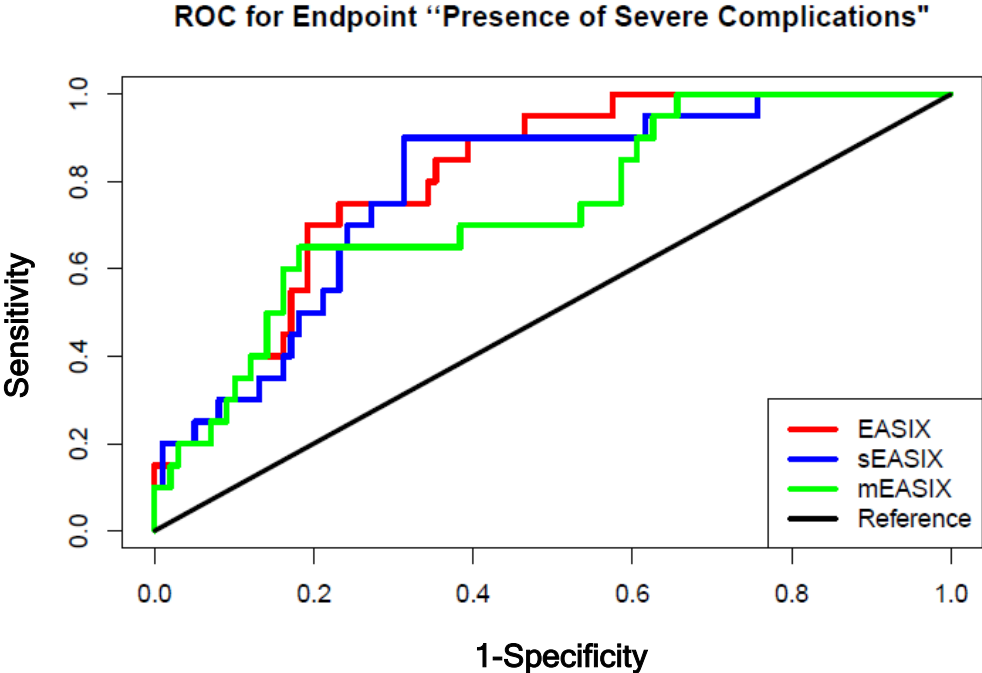


Figure 3



	AUC (95% CI)	p-value
EASIX	0.81 (0.72-0.90)	< 0.001
sEASIX	0.79 (0.68-0.88)	< 0.001
mEASIX	0.74 (0.62-0.86)	< 0.001

Conclusions:

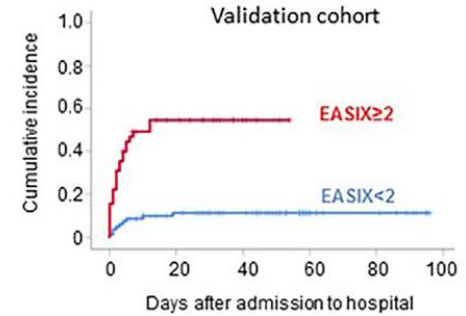
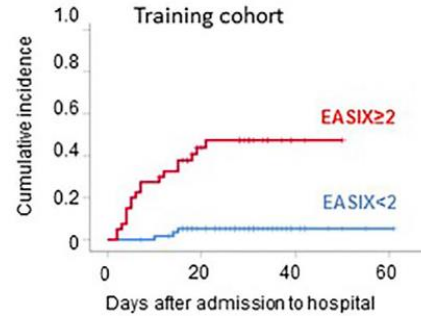
- EASIX-pre is a powerful predictor of severe CRS/ICANS after CD19-directed CART therapy
- EASIX-pre could be used as a basis for risk-adapted prevention strategies, such as
 - novel prophylactic or pre-emptive anti-inflammatory strategies (e.g. Anakinra)
 - decision-making on CAR-T-cell therapy indication in patients with critical comorbidities...
 - and in CART product selection

EASIX for Prediction of Outcome in Hospitalized SARS-CoV-2 Infected Patients

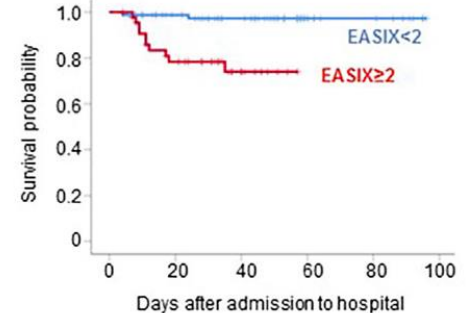
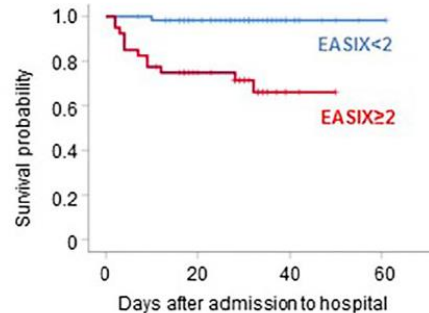
Thomas Luft^{1*}, Clemens-Martin Wendtner², Florentina Kosely³, Aleksandar Radujkovic¹, Axel Benner⁴, Felix Korell¹, Lars Kihm⁵, Matthias F. Bauer⁶, Peter Dreger¹ and Uta Merle⁷

- Hospitalisierung wegen COVID19
- Training (n=100, HD)
- Validierung (n=126, München + LU)
- Endpunkte schwerer Verlauf, OS
- Messung von EASIX bei Aufnahme

A Endpoint V/D



B Endpoint survival



Article

Kynurenine pathway activation and deviation to anthranilic and kynurenic acid in fibrosing chronic graft-versus-host disease

Laura Orsatti,^{1,4} Thomas Stiehl,^{2,4} Katharina Dischinger,^{3,4} Roberto Speziale,¹ Pamela Di Pasquale,¹ Edith Monteagudo,¹ Carsten Müller-Tidow,³ Aleksandar Radujkovic,³ Peter Dreger,³ and Thomas Luft^{3,5,*}

REGULAR ARTICLE

**Outcome of allogeneic transplantation for mature T-cell lymphomas: impact of donor source and disease characteristics**

Mehdi Hamadani,¹ Maud Ngoya,² Anna Sureda,³ Qaiser Bashir,⁴ Carlos Alejandro Litovich,⁵ Hervé Finel,² Yue Chen,⁵ Ariane Boumendil,² Jasmine Zain,⁶ Luca Castagna,⁷ Amanda F. Cashen,⁸ Didier Blaise,⁹ Mazyar Shadman,¹⁰ Rocco Pastano,¹¹ Farhad Khimani,¹² Mutlu Arat,¹³ Sascha Dietrich,¹⁴ Norbert Schmitz,¹⁵ Bertram Glass,^{2,16} Mohamed A. Kharfan-Dabaja,¹⁷ Paolo Corradini,¹⁸ Craig S. Sauter,¹⁹ Silvia Montoto,²⁰ Mi Kwon,²¹ Alex F. Herrera,⁶ and Peter Dreger¹⁴

bjh correspondence**Submyeloablative total body irradiation-based conditioning and allogeneic stem cell transplantation in high-risk myeloma with early progression after up-front autologous transplantation**

Elias K. Mai¹
Thomas Schmitt¹
Aleksandar Radujkovic¹
Laila König²
Hartmut Goldschmidt^{1,3}
Anthony D. Ho¹
Thomas Luft¹
Carsten Müller-Tidow¹
Peter Dreger¹
Ute Hegenbart¹
Stefan O. Schönland¹

EXCEPTIONAL CASE REPORT

**Fatal late-onset CAR T-cell-mediated encephalitis after axicabtagene-ciloleucel in a patient with large B-cell lymphoma**

Susanne Jung,¹ Jochen Greiner,¹ Stephanie von Harsdorf,¹ Pavle Popovic,¹ Roland Moll,¹ Jens Schittenhelm,² Kosmas Kandilaris,² Volker Daniel,³ Alexander Kunz,⁴ Michael Schmitt,⁴ and Peter Dreger⁴



Article

Infection Complications after Lymphodepletion and Dosing of Chimeric Antigen Receptor T (CAR-T) Cell Therapy in Patients with Relapsed/Refractory Acute Lymphoblastic Leukemia or B Cell Non-Hodgkin Lymphoma

Felix Korell^{1,*}, Maria-Luisa Schubert¹, Tim Sauer¹, Anita Schmitt¹, Patrick Derigs¹, Tim Frederik Weber², Paul Schnitzler³, Carsten Müller-Tidow¹, Peter Dreger¹ and Michael Schmitt¹

*The NEW ENGLAND JOURNAL of MEDICINE***Axicabtagene Ciloleucel as Second-Line Therapy for Large B-Cell Lymphoma**

F.L. Locke, D.B. Miklos, C.A. Jacobson, M.-A. Perales, M.-J. Kersten, O.O. Oluwole, A. Ghobadi, A.P. Rapoport, J. McGuirk, J.M. Pagel, J. Muñoz, U. Farooq, T. van Meerten, P.M. Reagan, A. Sureda, I.W. Flinn, P. Vandenberghe, K.W. Song, M. Dickinson, M.C. Minnema, P.A. Riedell, L.A. Leslie, S. Chaganti, Y. Yang, S. Filosto, J. Shah, M. Schupp, C. To, P. Cheng, L.I. Gordon, and J.R. Westin, for All ZUMA-7 Investigators and Contributing Kite Members*

Danke!

„von Dusch“

M Lommatzsch

A Dugimont
...und das Team!

Station

I Haberbosch
K Veelken
M Blank
M Cinci
P Derigs
K Farid
N Iashvili
M Janssen
M Jenzer
H Hennemann
J Kauer
E Lasitschka
A Margineau
T Roider
V Schmidt
A Martin

M Boxberger
E Schulze Schleithoff

Koordination

P Stadtherr

I Opitz

Ambulanz

U Hegenbart

S Schönland
A Radujkovic
C Pabst
ML Schubert
L Simons
J Fuhrmann
T Feisthammel

CART

M Schmitt

A Schmitt
ML Schubert

ECP

A Schmitt

R Alexi
& Team

Case Manager & CART

A Bondong

M Wegner

ZPM

H Giller

B Just
& Team

Labor

T Luft

M Hess
A Radujkovic

EBMT-Reporting

M Fischer

Psychologie

D Tönnessen

Sucheinheit

H Tran

K Nerbel
& Team

A QM

B Beck
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T Luft
P Dreger

Klinikleitung

S Dietrich
C Müller-Tidow