Recent Advances in Hematologic Oncology: A 4-Part Live Webinar Series Reviewing Key Data and Presentations from the 62nd ASH Annual Meeting

Part 2 — Hodgkin and Non-Hodgkin Lymphoma

Wednesday, February 3, 2021
5:00 PM – 6:00 PM ET

Faculty

John Kuruvilla, MD
John P Leonard, MD
Michael E Williams, MD, ScM

Moderator

Neil Love, MD

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Faculty

John Kuruvilla, MD
Hematologist, Princess Margaret Cancer Centre
Associate Professor, University of Toronto
Toronto, Ontario, Canada

Michael E Williams, MD, ScM
Byrd S Leavell Professor of Medicine
Chief, Hematology/Oncology Division
Physician Lead, Cancer Service Line
University of Virginia School of Medicine
Charlottesville, Virginia

John P Leonard, MD
Richard T Silver Distinguished Professor of
Hematology and Medical Oncology
Associate Dean for Clinical Research
Executive Vice Chair, Joan and Sanford I Weill
Department of Medicine
Weill Cornell Medicine
New York, New York

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Commercial Support

This activity is supported by educational grants from AstraZeneca Pharmaceuticals LP, Bristol-Myers Squibb Company, Genentech, a member of the Roche Group, Incyte Corporation, Karyopharm Therapeutics and Seagen Inc.

Dr Love — Disclosures

Dr Love is president and CEO of Research To Practice. Research To Practice receives funds in the form of educational grants to develop CME activities from the following commercial interests: AbbVie Inc, Acerta Pharma — A member of the AstraZeneca Group, Adaptive Biotechnologies Corporation, Agendia Inc, Agios Pharmaceuticals Inc, Amgen Inc, Array BioPharma Inc, a subsidiary of Pfizer Inc, Astellas, AstraZeneca Pharmaceuticals LP, Bayer HealthCare Pharmaceuticals, Biodesix Inc, bioTheranostics Inc, Blueprint Medicines, Boehringer Ingelheim Pharmaceuticals Inc, Bristol-Myers Squibb Company, Celgene Corporation, Clovis Oncology, Daiichi Sankyo Inc, Dendreon Pharmaceuticals Inc, Eisai Inc, EMD Serono Inc, Epizyme Inc, Exact Sciences Inc, Exelixis Inc, Foundation Medicine, Genentech, a member of the Roche Group, Genmab, Gilead Sciences Inc, GlaxoSmithKline, Grail Inc, Guardant Health, Halozyme Inc, Helsinn Healthcare SA, ImmunoGen Inc, Incyte Corporation, Infinity Pharmaceuticals Inc, Ipsen Biopharmaceuticals Inc, Janssen Biotech Inc, administered by Janssen Scientific Affairs LLC, Jazz Pharmaceuticals Inc, Karyopharm Therapeutics, Kite, A Gilead Company, Lexicon Pharmaceuticals Inc, Lilly, Loxo Oncology Inc, a wholly owned subsidiary of Eli Lilly & Company, Merck, Merrimack Pharmaceuticals Inc, Myriad Genetic Laboratories Inc, Natera Inc, Novartis, Novocure Inc, Oncopeptides, Pfizer Inc, Pharmacyclics LLC, an AbbVie Company, Prometheus Laboratories Inc, Puma Biotechnology Inc, Regeneron Pharmaceuticals Inc, Sandoz Inc, a Novartis Division, Sanofi Genzyme, Seagen Inc, Sirtex Medical Ltd, Spectrum Pharmaceuticals Inc, Sumitomo Dainippon Pharma Oncology Inc, Taiho Oncology Inc, Takeda Oncology, Tesaro, A GSK Company, Teva Oncology, Tokai Pharmaceuticals Inc and Verastem Inc.

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Dr Kuruvilla — Disclosures

Consulting Agreements	AbbVie Inc, Bristol-Myers Squibb Company, Gilead Sciences Inc, Karyopharm Therapeutics, Merck, Roche Laboratories Inc, Seagen Inc
Contracted Research	AstraZeneca Pharmaceuticals LP, Bristol-Myers Squibb Company, Celgene Corporation, Gilead Sciences Inc, Janssen Biotech Inc, Karyopharm Therapeutics, Merck, Novartis, Roche Laboratories Inc, Seagen Inc
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Dr Leonard — Disclosures

Consulting Agreements	ADC Therapeutics SA, AstraZeneca Pharmaceuticals LP, Bayer HealthCare Pharmaceuticals, BeiGene, Celgene Corporation, Genentech, a member of the Roche Group, Gilead Sciences Inc, Karyopharm Therapeutics, MEI Pharma Inc, MorphoSys, Nordic Nanovector, Novartis, Roche Laboratories Inc, Sutro Biopharma
Data and Safety Monitoring Board/Committee	Biotest Pharmaceuticals Corporation, Bristol-Myers Squibb Company

Dr Williams — Disclosures

Advisory Committee	AbbVie Inc
Consulting Agreements	Celgene Corporation, Gilead Sciences Inc, TG Therapeutics Inc
Contracted Research	Allos Therapeutics, Celgene Corporation, Gilead Sciences Inc, Janssen Biotech Inc, Pharmacyclics LLC, an AbbVie Company, TG Therapeutics Inc
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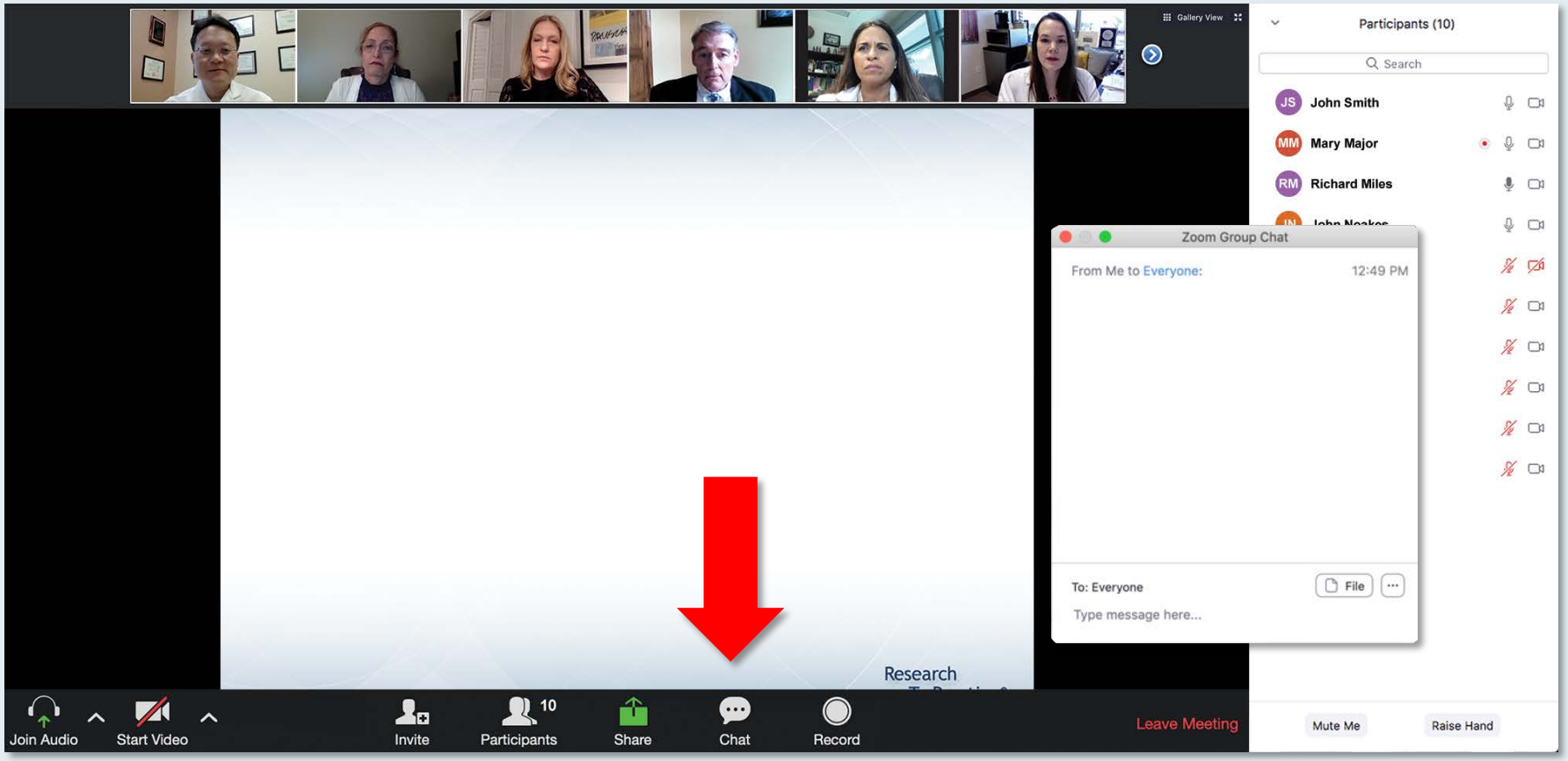
We Encourage Clinicians in Practice to Submit Questions



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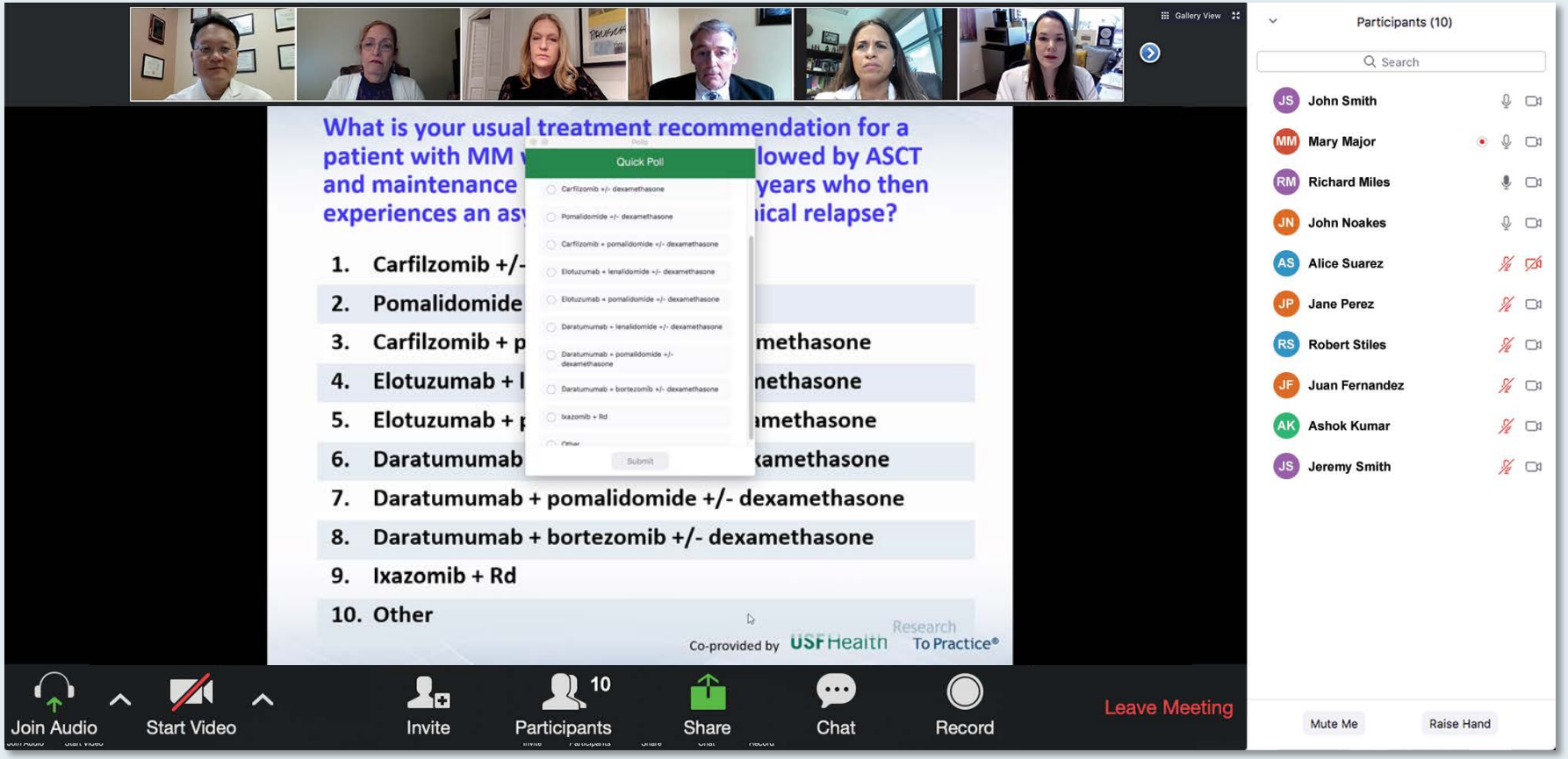

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WITH DR NEIL LOVE

CHIMERIC ANTIGEN RECEPTOR T-CELL THERAPY IN NON-HODGKIN LYMPHOMA

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CITY OF HOPE NATIONAL MEDICAL CENTER

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Cases from the Community: Investigators Discuss Emerging Research and Actual Patients with Gastroesophageal Cancers (Part 2 of a 3-Part Series)

Thursday, February 4, 2021
5:00 PM – 6:30 PM ET

Faculty

Daniel Catenacci, MD
Yelena Y Janjigian, MD
Rutika Mehta, MD, MPH
Zev Wainberg, MD, MSc

Moderator

Neil Love, MD

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Year in Review — Clinical Investigators Provide Perspectives on the Most Relevant New Publications, Data Sets and Advances in Oncology:

Breast Cancer

Tuesday, February 9, 2021
5:00 PM – 6:00 PM ET

Faculty

Harold Burstein, MD
Lisa Carey, MD

Moderator

Neil Love, MD

RESEARCH TO PRACTICE
2021
YEAR IN REVIEW

Recent Advances in Hematologic Oncology: A 4-Part Live Webinar Series Reviewing Key Data and Presentations from the 62nd ASH Annual Meeting

Part 3 — Multiple Myeloma

Wednesday, February 10, 2021
5:00 PM – 6:00 PM ET

Faculty

Rafael Fonseca, MD
Robert Z Orlowski, MD, PhD
Edward A Stadtmauer, MD

Moderator

Neil Love, MD

RTP RESEARCH TO PRACTICE

Cases from the Community: Investigators Discuss Emerging Research and Actual Patients with Colorectal Cancer (Part 3 of a 3-Part Series)

Thursday, February 11, 2021
5:00 PM – 6:00 PM ET

Faculty

Kristen K Ciombor, MD, MSCI
Eric Van Cutsem, MD, PhD

Moderator

Neil Love, MD

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A 65-year-old woman with ER-positive, HER2-negative, node-negative breast cancer has developed multiple minimally symptomatic bone metastases 2 years after starting adjuvant anastrozole. Which endocrine-based treatment would you most likely recommend?
Fulvestrant
Tamoxifen
Other hormone inhibitor
Palbociclib + fulvestrant
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Ribociclib + fulvestrant
Ribociclib + letrozole
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Other

Current Concepts and Recent Advances in Oncology: A Daylong Clinical Summit Hosted in Partnership with North Carolina Oncology Association (NCOA) and South Carolina Oncology Society (SCOS)

Saturday, February 13, 2021
8:30 AM – 4:30 PM ET

Faculty

Courtney D DiNardo, MD, MSCE
Robert Dreicer, MD, MS
Justin F Gainor, MD
Sara Hurvitz, MD
Ian E Krop, MD, PhD
John M Pagel, MD, PhD
Alexander Perl, MD
Daniel P Petrylak, MD
Philip A Philip, MD, PhD, FRCP
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Mitchell R Smith, MD, PhD
Eric Van Cutsem, MD, PhD
Peter Voorhees, MD
Heather Wakelee, MD

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Chronic Lymphocytic Leukemia and Lymphomas:
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Breast Cancer: Sara Hurvitz, Ian Krop

Acute Myeloid Leukemia and Myelodysplastic Syndromes:
Courtney DiNardo, Alexander Perl

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Thank you for joining us!

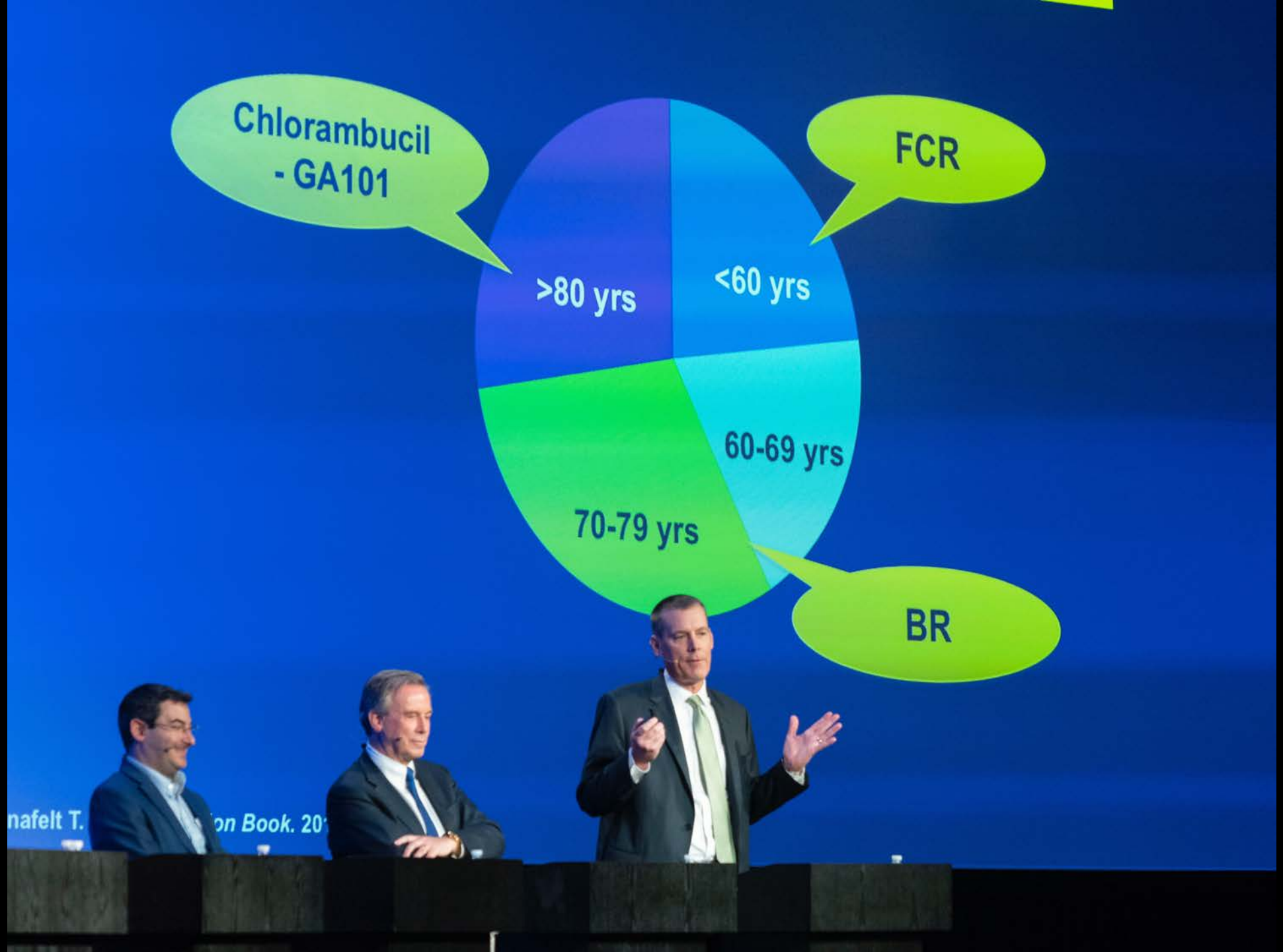
CME credit information will be emailed to each participant within 3 business days.


Neil Love, MD
Fac
ad S Kahl, M
Nastou
Sehn,
DELL

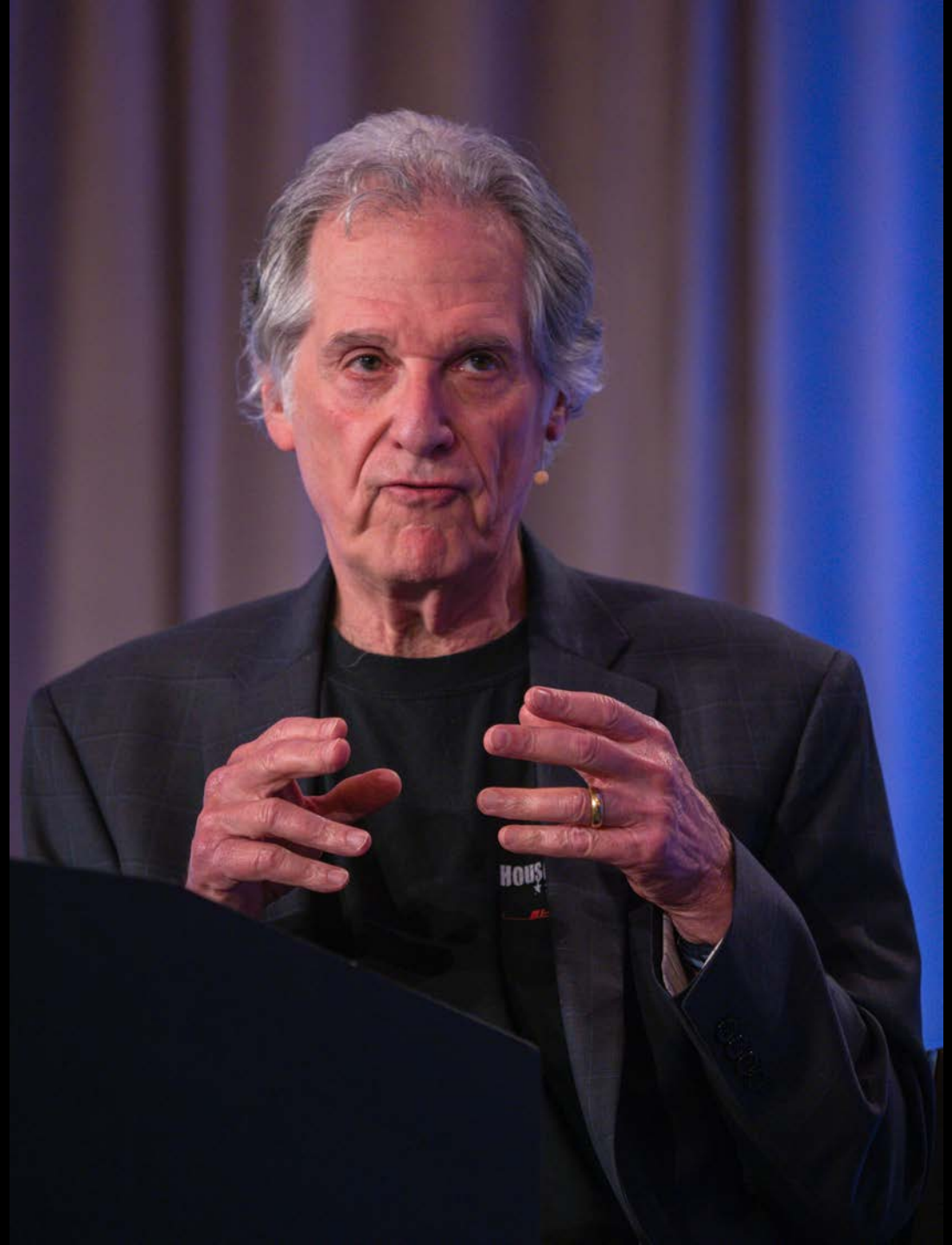

Jeremy Abram , MD
Bruce D Ches MD
Prof John G MD, DSc,


Acalabruti obinutuzumal
Obinutuzu + chlorambuc
Ven tuzumab


Biopsy of
lveme


Chlorambucil - GA101
FCR
>80 yrs
<60 yrs
60-69 yrs
70-79 yrs
BR


CLL patient requiring frontline Rx
1. 17p del/p53 mutation
– Ibrutinib or VO
• Would you stop V after 12 months?
2. IgVH unmutated (any age)
– VO or ibrutinib
3. IgVH mutated
– young and fit (<65)
• VO or ibrutinib
• Consider FCR
– age 65-80
• VO or ibrutinib
• Consider BR
– older > 80
• VO or ibrutinib
• Consider chlor uzumab




Have you or would you order an NMO assay to inform the decision regarding
autoimmune after induction treatment?

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Richard T Silver Distinguished Professor of
Hematology and Medical Oncology
Associate Dean for Clinical Research
Executive Vice Chair, Joan and Sanford I Weill
Department of Medicine
Weill Cornell Medicine
New York, New York

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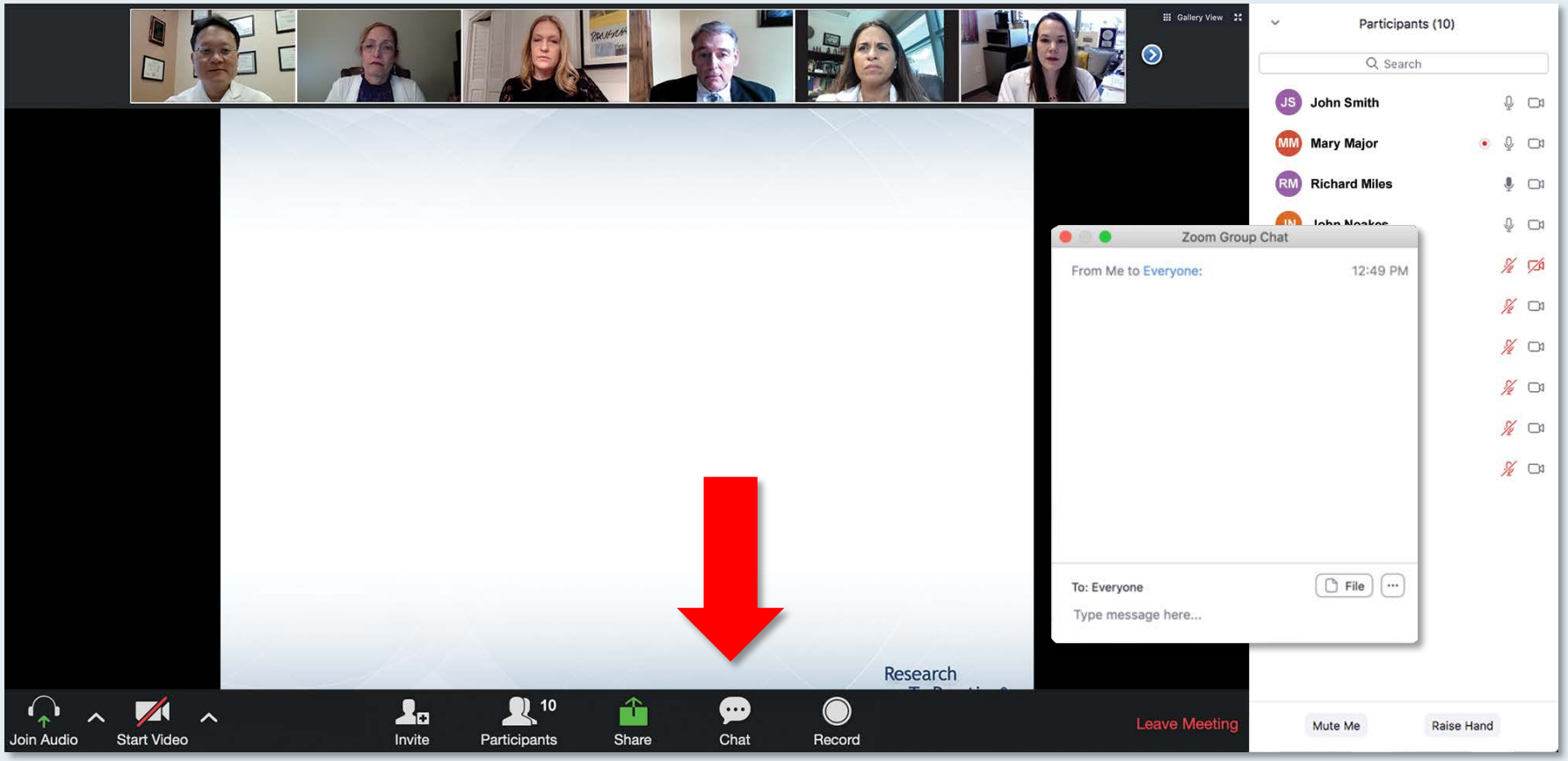

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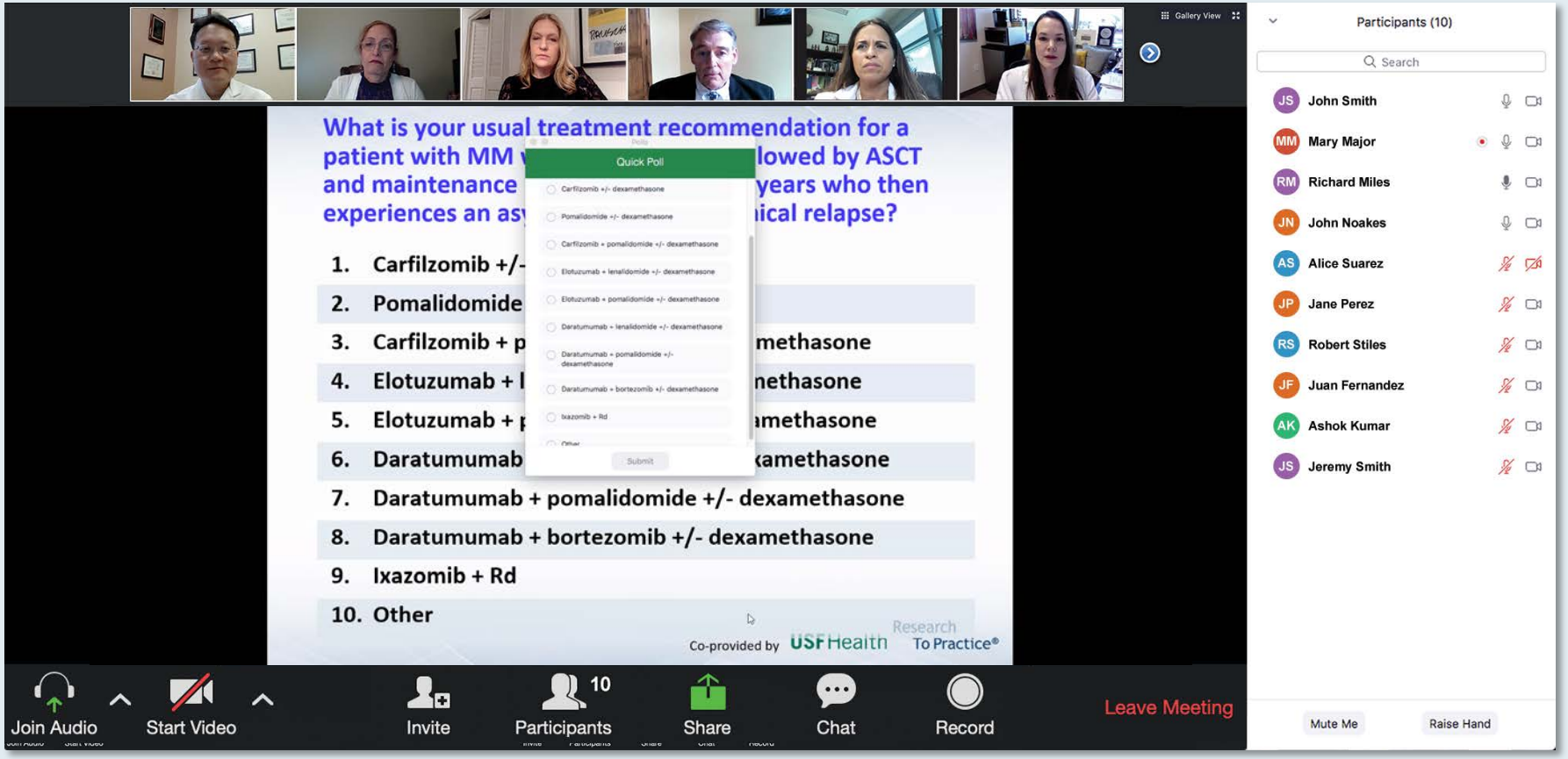

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Zev Wainberg, MD, MSc

Moderator

Neil Love, MD

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Meet The Professor
Management of Lung Cancer

Friday, February 5, 2021
12:00 PM – 1:00 PM ET

Faculty

Joshua Bauml, MD

Moderator

Neil Love, MD

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TO PRACTICE

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Acute Myeloid Leukemia and Myelodysplastic Syndromes:
Courtney DiNardo, Alexander Perl

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Agenda

Module 1: Evolving treatment paradigm for patients with diffuse large B-cell lymphoma (DLBCL) – Ann S LaCasce, MD, MMSc

Module 2: Optimal management of newly diagnosed and relapsed/refractory follicular lymphoma – Dr Leonard

Module 3: Available and emerging approaches for mantle cell lymphoma – Dr Williams

Module 4: Selection and sequencing of therapies for patients with advanced Hodgkin lymphoma – Dr Kuruvilla

Module 5: Advances in chimeric antigen receptor T-cell therapy for DLBCL and other lymphoma subtypes – Jonathan W Friedberg, MD, MMSc

CNS prophylaxis with high-dose methotrexate significantly reduces the rate of CNS relapse for patients with DLBCL.

1. Agree
2. Disagree
3. There are no data to support this
4. I don’t know

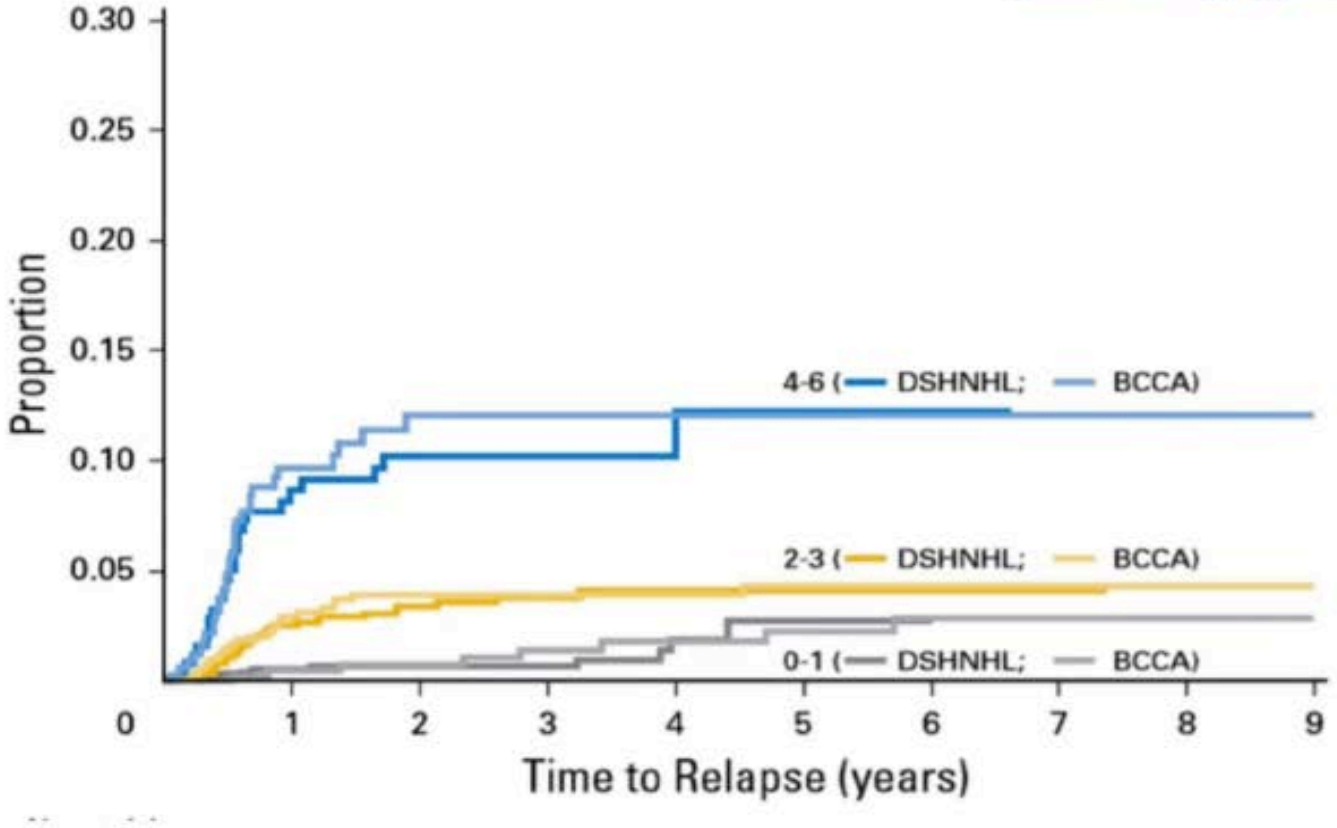
Ineffectiveness of IV High-Dose Methotrexate for Prevention of CNS Relapse in Patients with High-Risk DLBCL

Robert Puckrin, Haidar El Darsa, Sunita Ghosh, Anthea Peters, Douglas A. Stewart
University of Calgary & University of Alberta
Alberta, Canada

Predicting CNS relapse

CNS-IPI score:

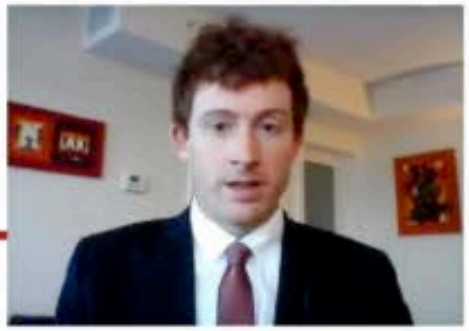
- Age >60 y
- ECOG 2-4
- Elevated LDH
- Stage III/IV
- >1 extranodal site
- Kidney/adrenal involvement



Schmitz et al., J Clin Oncol 2016; 34(26):3150

Puckrin R et al. ASH 2020;Abstract 477.

Preventing CNS relapse

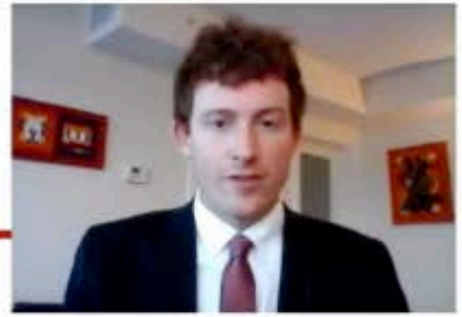


IT chemo	• No convincing evidence of benefit [1]
Rituximab	• ↓ CNS relapse with R-CHOP vs. CHOP (4.1% vs. 6.9%) [2]
Etoposide	• ↓ CNS relapse with CHOEP not replicated in rituximab era [3,4]
HD-MTX	• May be associated with ↓ CNS relapse (3%) [5]

1. Haematologica 2020;105(7):1914 **2.** Blood 2009;113(17):3896 **3.** Ann Oncol 2007;18(1):149 **4.** J Clin Oncol 2016;34(26):3150 **5.** Cancer 2010;116(18):4283

Puckrin R et al. ASH 2020;Abstract 477.

Conclusions



- CNS relapse affects 6% of DLBCL patients
- ALG high-risk criteria and CNS-IPI score are predictive of CNS relapse
- Risk of CNS relapse was similar with vs. without HD-MTX (11.2% vs. 12.2%) and similar to rates reported in prior publications (10-12%)
- Consolidative autotransplant or intensive chemoimmunotherapy trended to reduce CNS relapse, a finding worthy of further study

Puckrin R et al. ASH 2020;Abstract 477.

Polatuzumab Vedotin plus Venetoclax with Rituximab in Relapsed/Refractory Diffuse Large B-Cell Lymphoma: Primary Efficacy Analysis of a Phase Ib/II Study

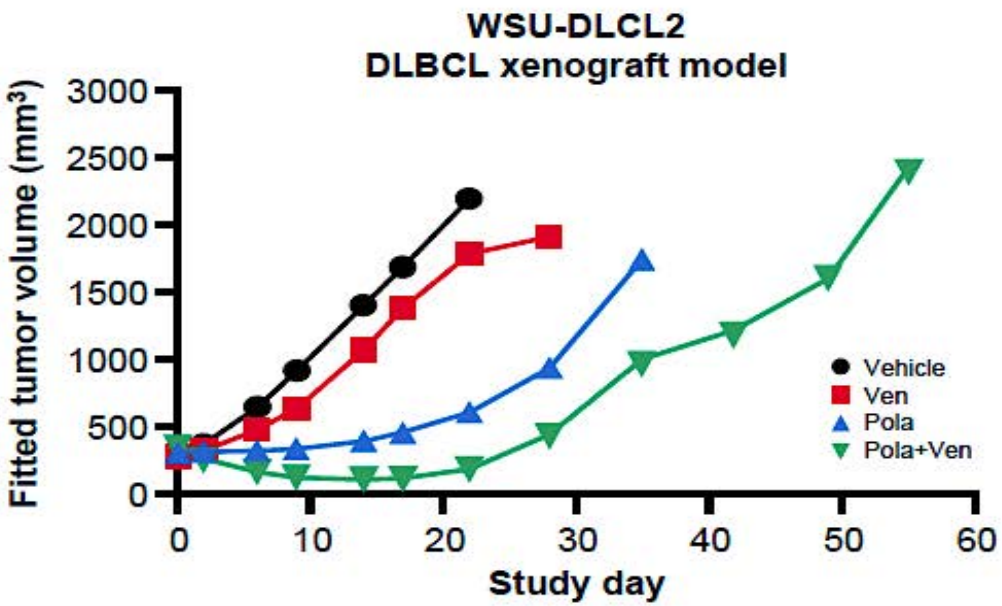
Giuseppe Gritti[1], Paula Marlton[2], Tycel Phillips[3], Christopher Arthur[4], Rajat Bannerji[5], Paolo Corradini[6], Anna Johnston[7], John F Seymour[8], Sam Yuen[9], Jamie Hirata[10], Lisa Musick[10], Sourish Saha[10], Brandon Croft[10], Christopher Flowers[11,12]

[1]ASST Papa Giovanni XXIII, Bergamo, Italy; [2]University of Queensland and Princess Alexandra Hospital, Brisbane, Australia; [3]University of Michigan Comprehensive Cancer Center, Ann Arbor, MI, USA; [4]Royal North Shore Hospital (RNSH), St Leonards, Australia; [5]Rutgers Cancer Institute of New Jersey, New Brunswick, NJ, USA; [6]Fondazione IRCCS Istituto Nazionale dei Tumori, University of Milan, Milan, Italy; [7]Royal Hobart Hospital (RHH), Hobart, Australia; [8]Peter MacCallum Cancer Centre and Royal Melbourne Hospital, Melbourne, Australia; [9]Calvary Mater Newcastle, Waratah, Australia; [10]Genentech, Inc., South San Francisco, CA, USA; [11]The Winship Cancer Institute of Emory University, Atlanta, GA, USA, [12]UT MD Anderson Cancer Center, Houston, TX, USA

Accepted as an Oral Presentation at the 62nd ASH Annual Meeting and Exposition

Pola potentiates Ven activity in NHL cell lines by targeting MCL-1

- In NHL cell lines, the pro-survival MCL-1 protein confers resistance to Ven, a potent inhibitor of BCL-2[1,2]
- Preclinical studies show that concurrent treatment with Pola promotes MCL-1 degradation and enhances anti-tumor efficacy in vivo, thus providing a strong rationale for the combination with Ven[3]



- In preclinical studies, Pola+Ven improved anti-tumor activity compared with the single agents

BCL-2, B-cell lymphoma-2; MCL-1, myeloid cell leukaemia-1; NHL, non-Hodgkin lymphoma; PO, by mouth; Pola, polatuzumab vedotin; Ven, venetoclax

1. Adams C, et al. Front Oncol 2018;8:636
2. Phillips D, et al. Blood Cancer J 2016;6:e403
3. Amin D, et al. AACR; Cancer Res 2020;80(16 Suppl):Abstract CT133

Gritti G et al. ASH 2020;Abstract 599.

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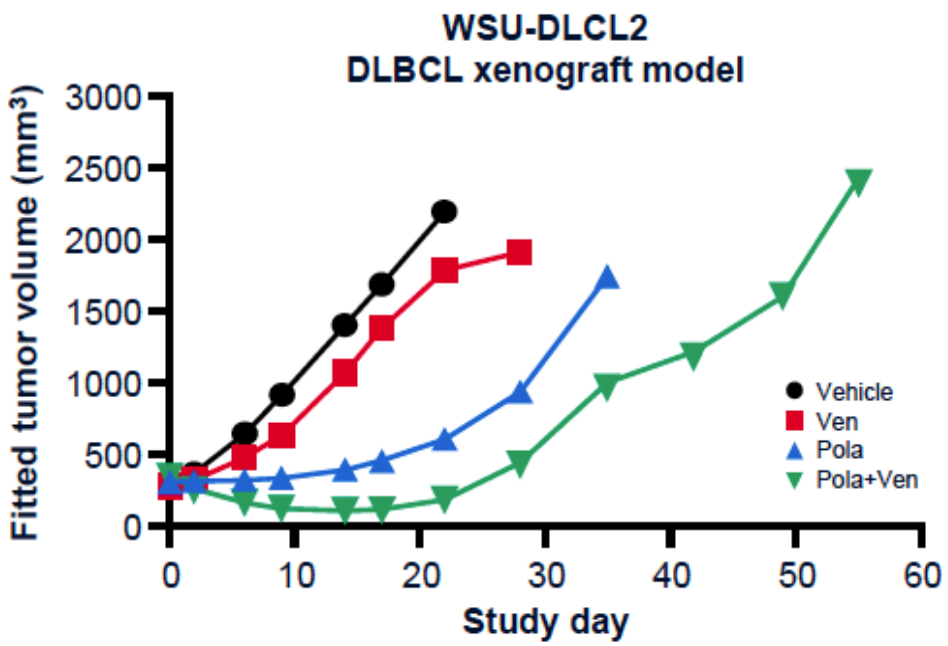

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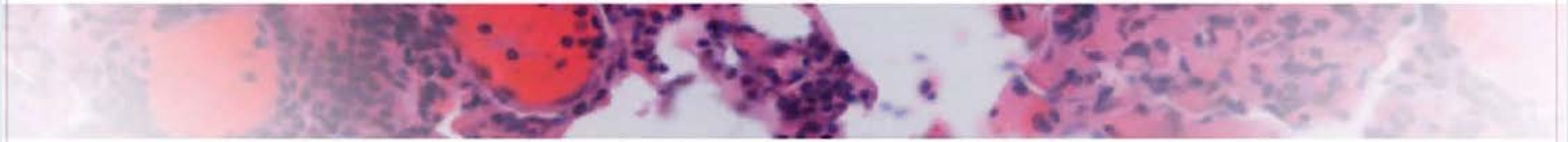


Selinexor in Combination with R-CHOP for Frontline Treatment of Non-Hodgkin Lymphoma: Results of a Phase 1b Study

Erlene K. Seymour[1], Li Yi[1], Mahmoud Chaker[1], Amro Aboukameel[1], Radhakrishanan Ramchandren[2], Golbon Sterbis[1], Jay Yang[1], Divaya Bhutani[3], Ramzi M. Mohammad[1], Asfar S. Azmi[1*], Jeffrey A. Zonder[1*]

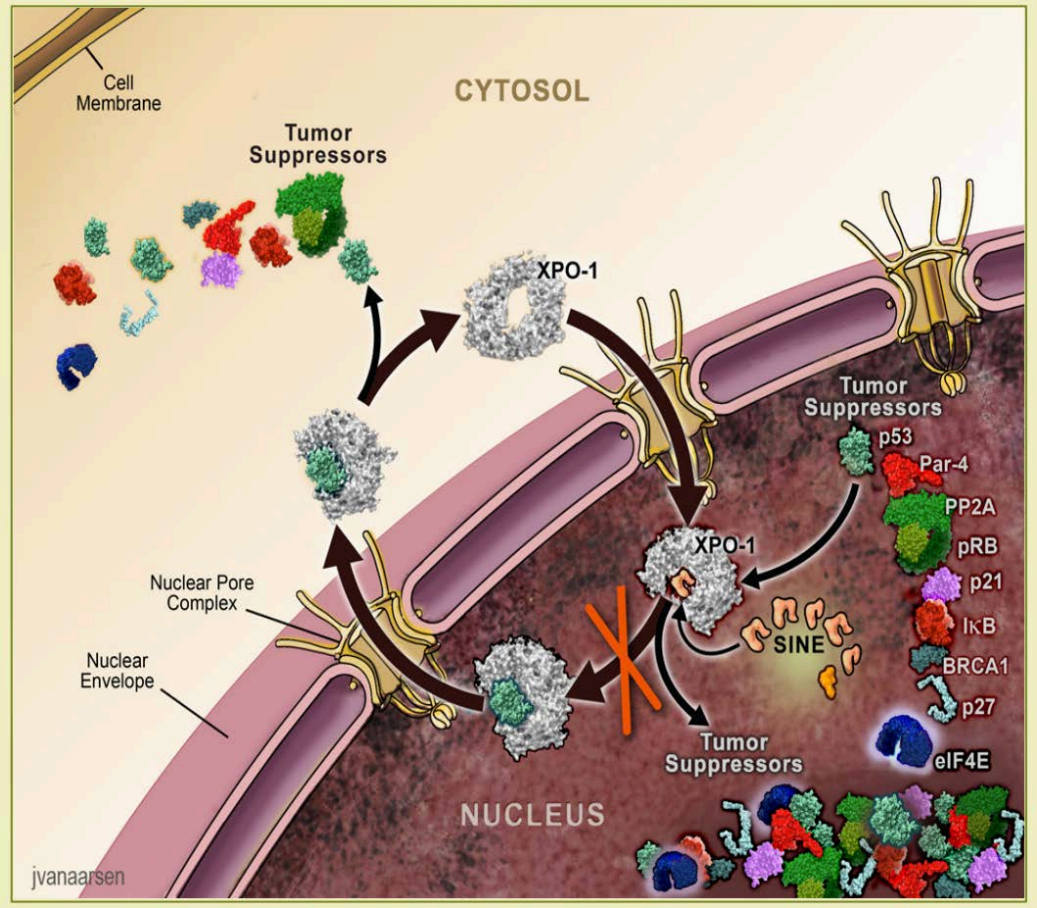
[1]Department of Oncology, Wayne State University School of Medicine and Karmanos Cancer Institute, Detroit, MI; [2]Department of Oncology, University of Tennessee, Knoxville, TN; [3]Department of Oncology, Columbia University, New York, NY

Presenting Author: Erlene K. Seymour, MD

Abstract #2109

December 6, 2020

Selinexor has a novel mechanism of action: XPO-1 inhibitor



XPO1 over-expressed in DLBCL and correlates with poor prognosis

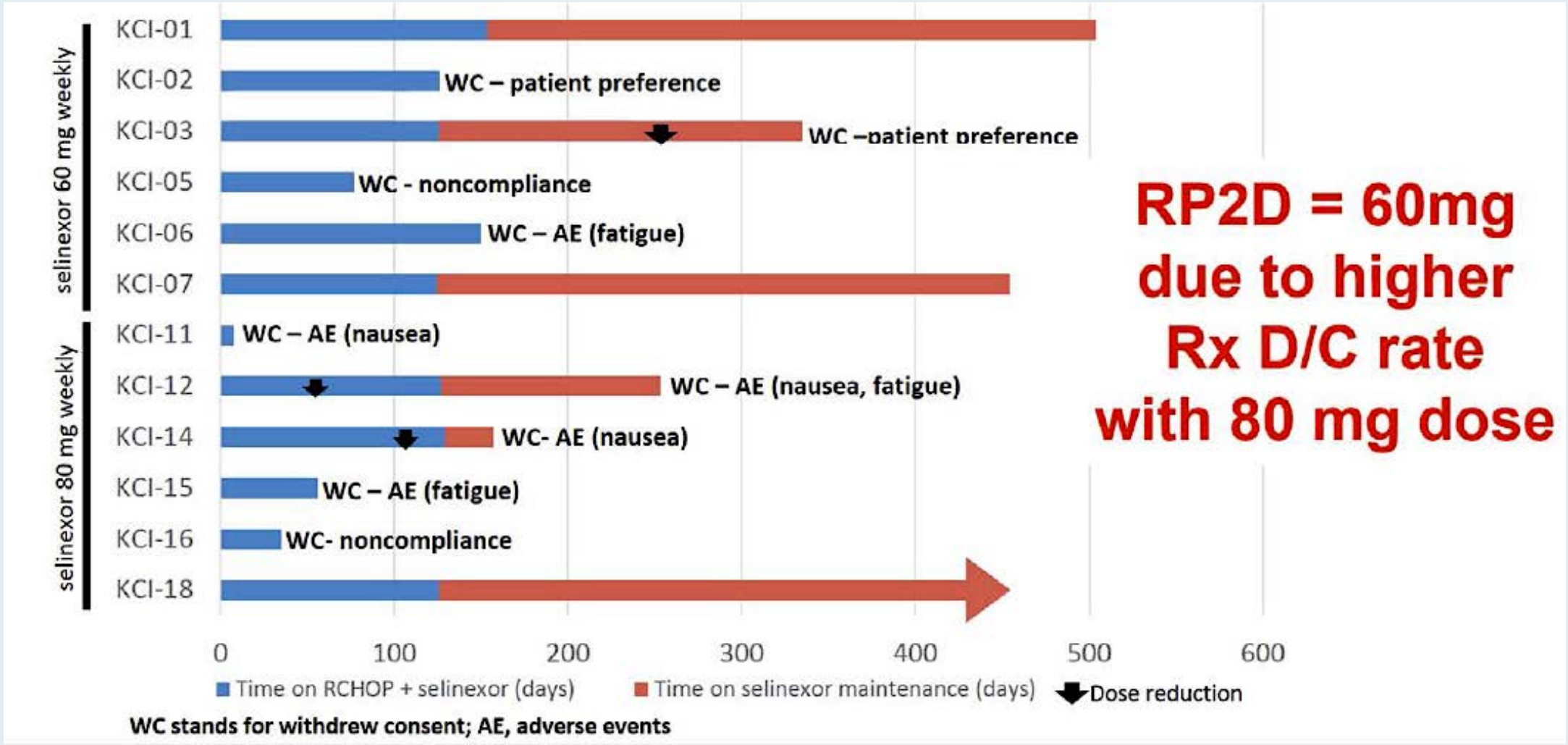
Induces nuclear accumulation of tumor suppressors including p53, p73, IkBk and FOXO

Decreases production of oncoproteins including c-MYC, BCL2, BCL6 and BCL-XL

Kalakonda. Lancet Heme 2020

Courtesy of Ann S LaCasce, MD, MMSc

Frontline Selinexor plus R-CHOP: Time on Study and Recommended Phase II Dose



RP2D = 60mg due to higher Rx D/C rate with 80 mg dose

Seymour E et al. ASH 2020;Abstract 2109.

Frontline Selinexor plus R-CHOP: Efficacy

	Patient	Diagnosis	Days on Selinexor	Best Response
Selinexor 60 mg weekly	KCI-01	Transformed DLBCL	514	CR
	KCI-02	Transformed DLBCL	134	CR
	KCI-03	DLBCL (non-GCB)	371	CR
	KCI-05	DLBCL (non-GCB)	88	PR
	KCI-06	DLBCL (non-GCB)	152	CR
	KCI-07	DLBCL (non-GCB)	461	CR
Selinexor 80 mg weekly	KCI-12	FL	258	CR
	KCI-14	DLBCL (GCB)	164	CR
	KCI-15	Transformed DLBCL	84	CR
	KCI-18	DLBCL (non-GCB)	443	CR

ORR: 100%
CR rate: 90%

All CRs ongoing
Median F/U: 476 days

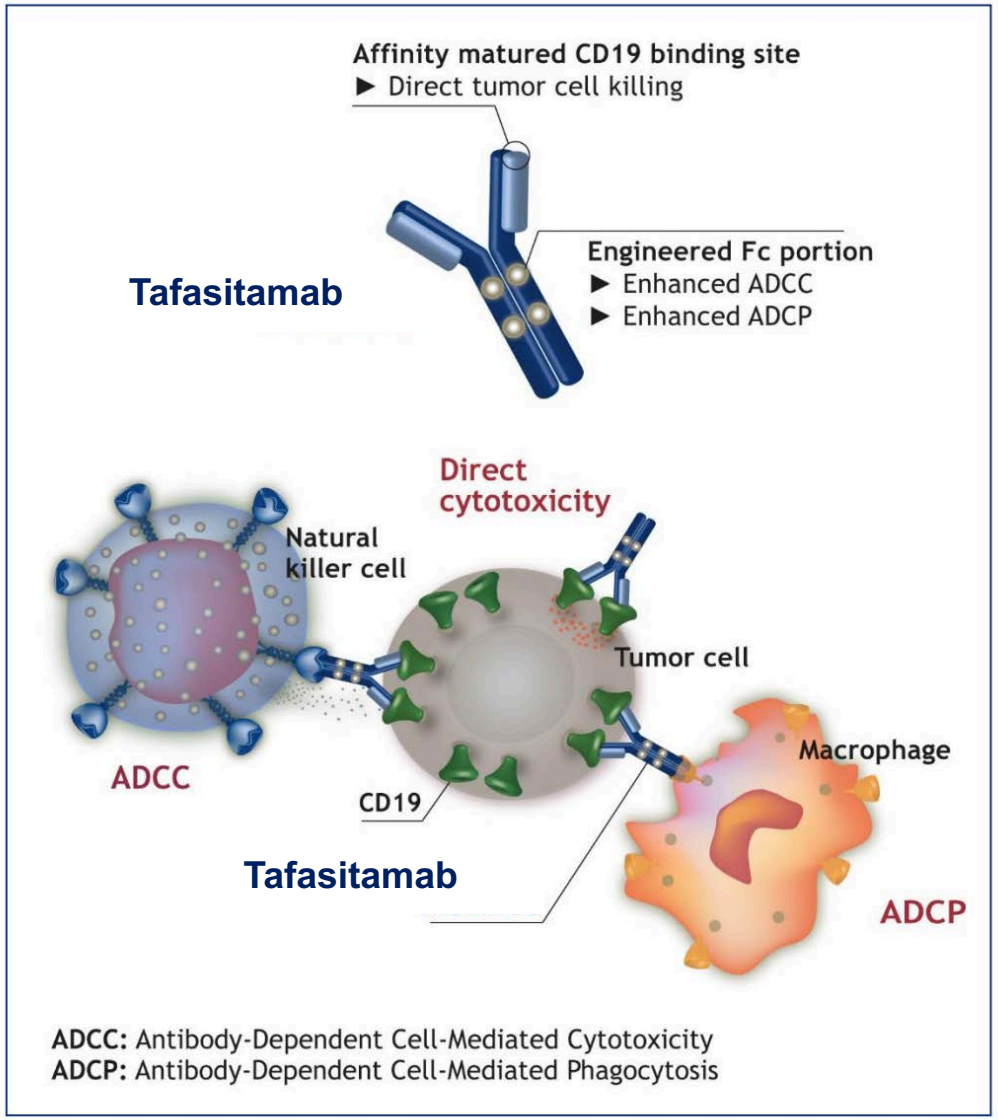
Seymour E et al. ASH 2020;Abstract 2109.

Long-Term Subgroup Analyses from L-MIND, a Phase II Study of Tafasitamab (MOR208) Combined with Lenalidomide in Patients with Relapsed or Refractory Diffuse Large B-Cell Lymphoma

Kami J Maddocks*[1], Johannes Duell[2], Eva González-Barca[3], Wojciech Jurczak[4], Anna Marina Liberati[5], Sven de Vos[6], Zsolt Nagy[7], Aleš Obr[8], Gianluca Gaidano[9], Pau Abrisqueta[10], Marc André[11], Martin Dreyling[12], Tobias Menne[13], Maren Dirnberger-Hertweck[14], Johannes Weirather[14], Sumeet Ambarkhane[14], Gilles Salles[15]

[1]Department of Internal Medicine, Arthur G James Comprehensive Cancer Center, Ohio State University Wexner Medical Center, Columbus, OH, USA;
[2]Medizinische Klinik und Poliklinik II, Universitätsklinik Würzburg, Würzburg, Germany;
[3]Department of Hematology, Institut Catalá d'Oncologia (ICO), Hospital Duran i Reynals, IDIBELL, Universitat de Barcelona, Barcelona, Spain;
[4] Department of Clinical Oncology, Maria Sklodowska-Curie National Research Institute of Oncology, Kraków, Poland;
[5]Università degli Studi di Perugia, Azienda Ospedaliera Santa Maria di Terni, Terni, Italy;
[6]Department of Medicine, Ronald Reagan UCLA Medical Center, Santa Monica, CA;
[7]1st Department of Internal Medicine, Semmelweis University, Budapest, Hungary;
[8]Department of Hemato-Oncology, Palacký University and University Hospital, Olomouc, Czech Republic;
[9]Division of Hematology, Department of Translational Medicine, University of Piemonte Orientale Amedeo Avogadro, Novara, Italy;
[10]Department of Hematology, Vall d'Hebron Institute of Oncology (VHIO), Vall d'Hebron University Hospital, Barcelona, Spain;
[11]Department of Haematology, Université Catholique de Louvain, CHU UCL Namur, Yvoir, Belgium; [12]LMU Hospital, Munich, Germany;
[13]Department of Haematology, Freeman Hospital, Newcastle Upon Tyne Hospitals NHS Foundation Trust, Newcastle Upon Tyne, UK;
[14]MorphoSys AG, Planegg, Germany; [15]Hématologie, Hospices Civils de Lyon and Université de Lyon, Lyon, France

Tafasitamab (MOR208)

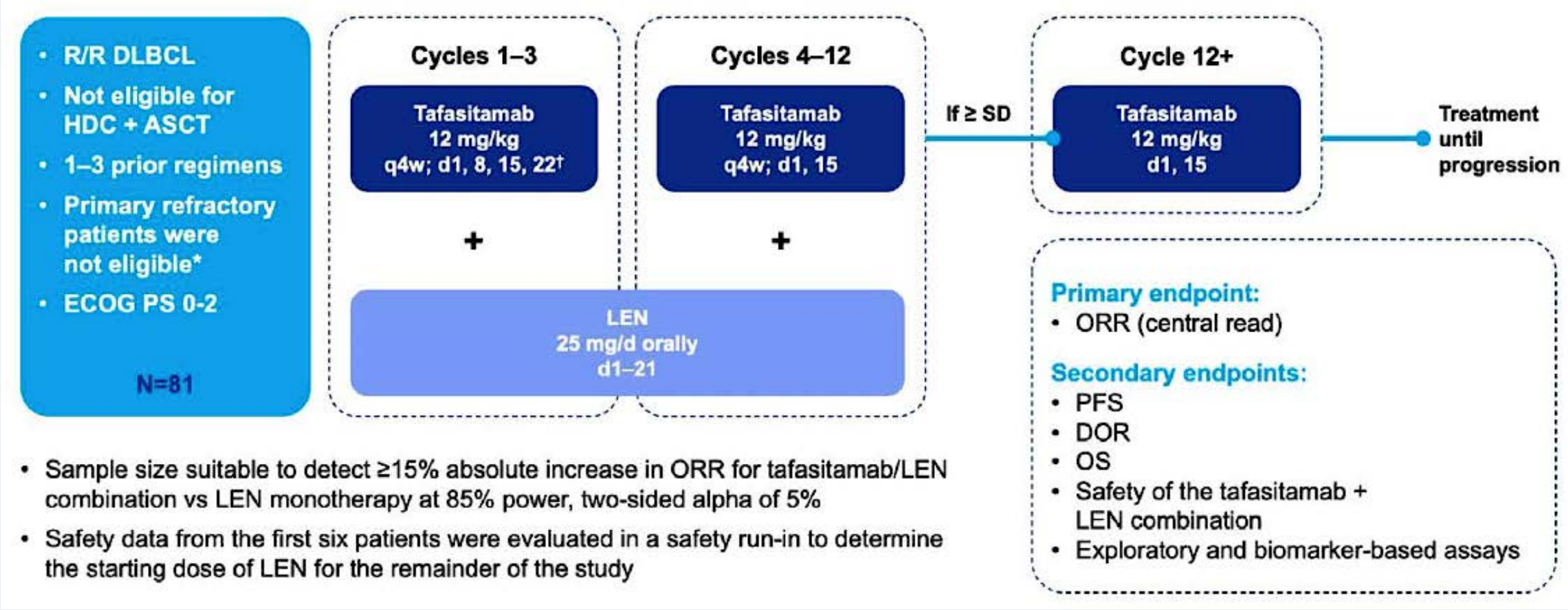


Lenalidomide enhances NK function with enhanced ADCC in vitro

Salles et al. Lancet Onc 2020

Courtesy of Ann S LaCasce, MD, MMSc

L-MIND: Study Design



Maddocks K et al. ASH 2020;Abstract 3021.

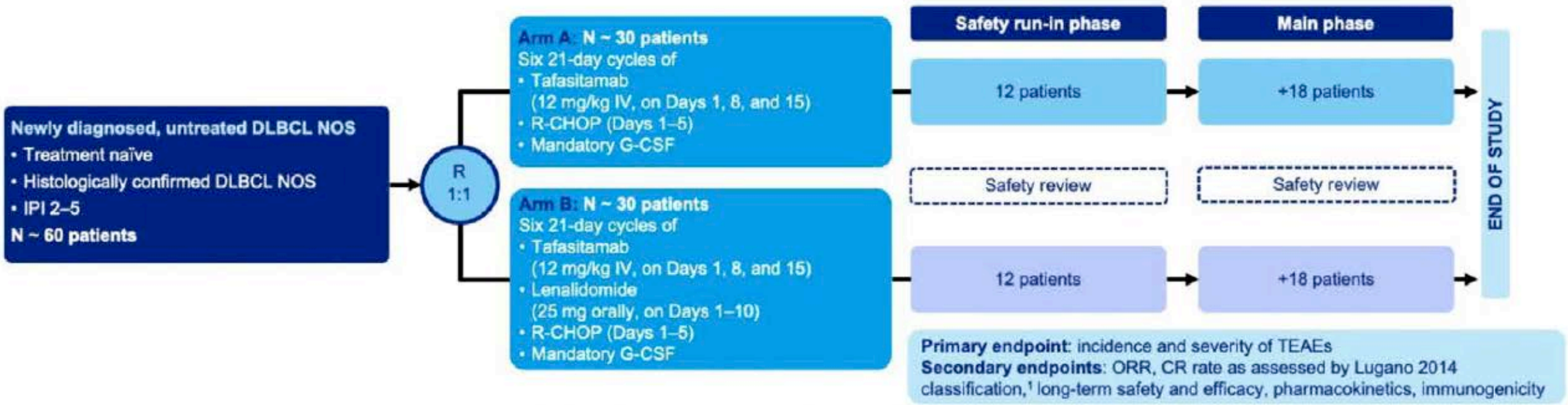
A Phase Ib, Open-Label, Randomized Study to Assess Safety and Preliminary Efficacy of Tafasitamab (MOR208) or Tafasitamab + Lenalidomide in Addition to R-CHOP in Patients with Newly Diagnosed Diffuse Large B-cell Lymphoma (DLBCL): Preliminary Data

David Belada[1], Grzegorz Nowakowski[2], Juan Miguel Bergua Burgues[3], Marc André[4], Katerina Kopeckova[5], Don Stevens[6], Marek Trněný[7], Ernesto Perez Persona[8], Petra Pichler[9], Pia Klöpfer[10], Bettina Brackertz[10], Emanuel Lohrmann[10], Anirban Lahiry[10], Neha Shah[10], Günter Fingerle-Rowson[10], Wolfram Brugger[10], John Burke[11]

1. 4th Department of Internal Medicine – Hematology, University Hospital and Faculty of Medicine, Hradec Králové, Czech Republic; 2. Division of Hematology, Mayo Clinic, Rochester, MN; 3. Hematology, Hospital San Pedro Alcántara, Caceres, Spain; 4. Department of Haematology, Université Catholique de Louvain, CHU UCL Namur, Yvoir, Belgium; 5. Fakultni nemocnice v Motole, Prague, Czech Republic; 6. Norton Cancer Institute - St Matthews Campus, Louisville, KY; 7. 1st Dept. of Internal Medicine, First Medical Faculty, Charles University and General University Hospital, Prague, Czech Republic; 8. Hospital Universitario de Alava, Vitoria-Gasteiz, Spain; 9. Department of Internal Medicine, University Hospital of St Pölten, Karl Landsteiner University of Health Sciences, Karl Landsteiner Institute for Nephrology and Hemato Oncology, St Pölten, Austria; 10. MorphoSys AG, Planegg, Germany; 11. US Oncology Hematology Research Program, US Oncology Research and Rocky Mountain Cancer Centers, Aurora, CO.

First-MIND: Study Design

- An open-label, prospective, randomized, Phase Ib study designed to evaluate the safety and preliminary efficacy of tafasitamab or tafasitamab + lenalidomide in addition to R-CHOP in patients with newly diagnosed DLBCL



In the lenalidomide arm, prophylaxis with either low-molecular weight heparins or aspirin is mandatory.

Belada D et al. ASH 2020;Abstract 3028.

RTP RESEARCH TO PRACTICE

First-MIND: Treatment Emergent Adverse Events

Overall summary by toxicity grade, n (%) [E]	Arm A: tafasitamab + R-CHOP (n=33)	Arm B: tafasitamab + lenalidomide + R-CHOP (n=33)	Total (N=66)
Patients with TEAEs and the total number of events	32* (97.0) [345]	33 (100) [443]	65 (98.5) [788]
Grade 1	26 (78.8) [140]	27 (81.8) [161]	53 (80.3) [301]
Grade 2	27 (81.8) [120]	28 (84.8) [135]	55 (83.3) [255]
Grade 3	21 (63.6) [48]	22 (66.7) [72]	43 (65.2) [120]
Grade 4	13 (39.4) [36]	19 (57.6) [75]	32 (48.5) [111]
Grade 5	1 (3.0) [1]	0	1 (1.5) [1]
Grade 3 or higher	23 (69.7) [85]	27 (81.8) [147]	50 (75.8) [232]

Overall summary of serious TEAEs, n (%) [E]	Arm A: tafasitamab + R-CHOP (n=33)	Arm B: tafasitamab + lenalidomide + R-CHOP (n=33)	Total (N=66)
Patients with serious TEAEs and the total number of events	13 (39.4) [28]	16 (48.5) [27]	29 (43.9) [55]

- Overall, 98.5% of patients experienced TEAEs; of these, 75.8% were grade 3 or higher
- Serious TEAEs were experienced by 29 patients in total (43.9%), 13 patients in arm A and 16 in arm B (39.4% vs 48.5%)
- No new safety signals were identified with either tafasitamab + R-CHOP or tafasitamab + lenalidomide + R-CHOP compared with previous Phase III studies with R-CHOP or R2-CHOP[1–3]

Belada D et al. ASH 2020;Abstract 3028.

RTP RESEARCH TO PRACTICE

Which therapy would you generally recommend first for a patient with DLBCL who experiences disease progression on front-line R-CHOP and is not eligible for high-dose therapy and CAR T-cell therapy?

1. Polatuzumab vedotin/BR (bendamustine/rituximab)
2. Tafasitamab/lenalidomide
3. Selinexor
4. CAR T-cell therapy
5. I don’t know

RTP
RESEARCH
TO PRACTICE

Which therapy would you generally recommend first for a patient with DLBCL who experiences disease progression on front-line R-CHOP and is unfit for high-dose therapy and CAR T-cell therapy?

 JONATHAN W FRIEDBERG, MD, MMSC	Tafasitamab/lenalidomide
 JOHN KURUVILLA, MD	Polatuzumab vedotin/BR
 ANN S LACASCE, MD, MMSC	Polatuzumab vedotin/BR
 JOHN P LEONARD, MD	Tafasitamab/lenalidomide
 MICHAEL E WILLIAMS, MD, SCM	Tafasitamab/lenalidomide
 CRAIG MOSKOWITZ, MD	Tafasitamab/lenalidomide
 LORETTA NASTOUPIL, MD	Tafasitamab/lenalidomide
 LAURIE H SEHN MD, MPH	Polatuzumab vedotin/BR
GENERAL MEDICAL ONCOLOGISTS (N = 75)	Polatuzumab vedotin/BR, Tafasitamab/lenalidomide

Agenda

Module 1: Evolving treatment paradigm for patients with diffuse large B-cell lymphoma (DLBCL) – Dr LaCasce

Module 2: Optimal management of newly diagnosed and relapsed/refractory follicular lymphoma – Dr Leonard

Module 3: Available and emerging approaches for mantle cell lymphoma – Dr Williams

Module 4: Selection and sequencing of therapies for patients with advanced Hodgkin lymphoma – Dr Kuruvilla

Module 5: Advances in chimeric antigen receptor T-cell therapy for DLBCL and other lymphoma subtypes – Dr Friedberg

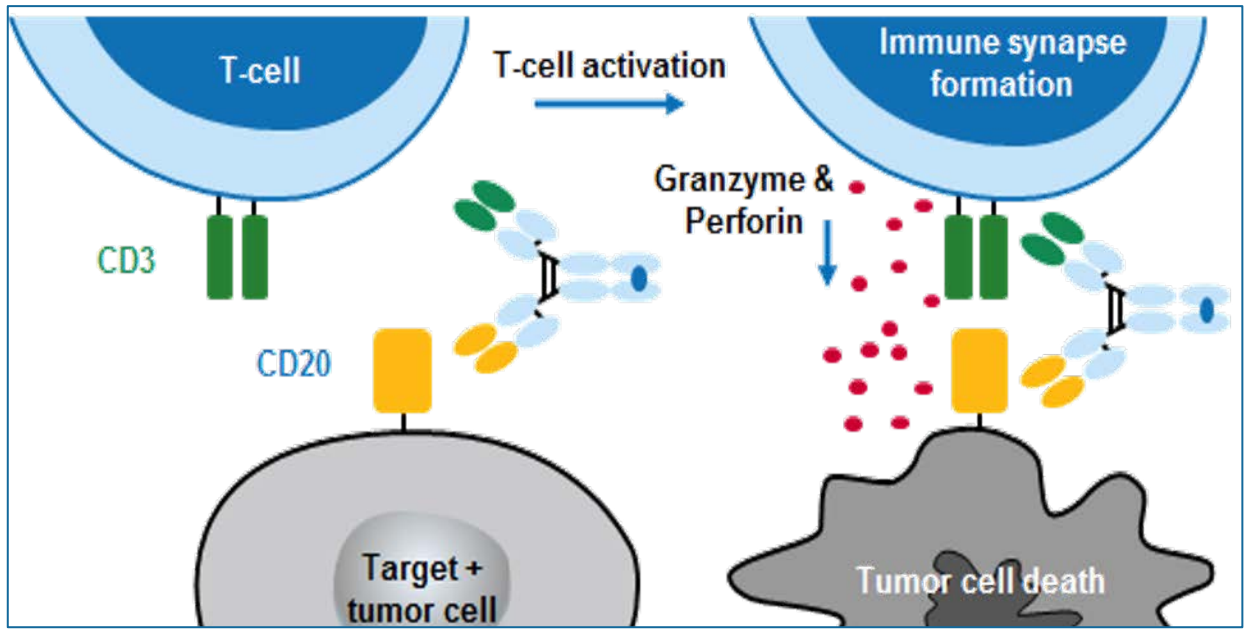
Mosunetuzumab Shows Promising Efficacy in Patients with Multiply Relapsed Follicular Lymphoma: Updated Clinical Experience from a Phase I Dose-Escalation Trial

Sarit Assouline,[1] Won Seog Kim,[2] Laurie H. Sehn,[3] Stephen J. Schuster,[4] Chan Yoon Cheah,[5] Loretta J. Nastoupil,[6] Mazyar Shadman,[7] Sung-Soo Yoon,[8] Matthew J. Matasar,[9] Catherine Diefenbach,[10] Gareth P. Gregory,[11] Nancy L. Bartlett,[12] Michael C. Wei,[13] Michelle Y. Doral,[13] Shen Yin,[13] Raluca Negricea,[14] Chi-Chung Li,[13] Elicia Penuel,[13] Huang Huang,[14] L. Elizabeth Budde[15]

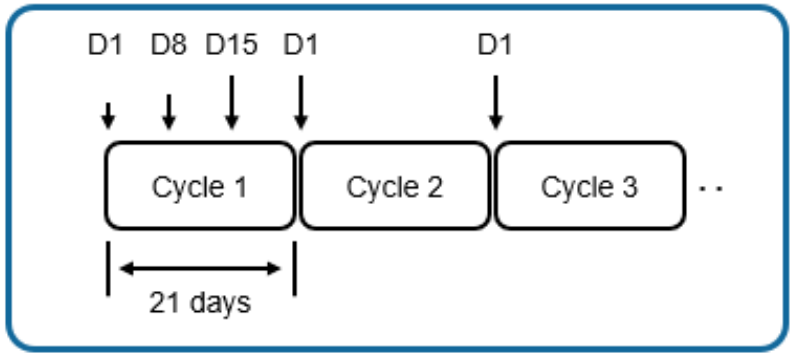
[1]Jewish General Hospital, Montreal, QC, Canada; [2]Sungkyunkwan University School of Medicine, Samsung Medical Center, Seoul, Republic of Korea; [3]BC Cancer Centre for Lymphoid Cancer and The University of British Columbia, Vancouver, BC, Canada; [4]Abramson Cancer Center, University of Pennsylvania, Philadelphia, PA, USA; [5]Linear Clinical Research and Sir Charles Gairdner Hospital, Nedlands, WA, Australia; [6]MD Anderson Cancer Center, Houston, TX, USA; [7]Fred Hutchinson Cancer Research Center, Seattle, WA, USA; [8]Seoul National University Hospital, Seoul, Republic of Korea; [9]Memorial Sloan Kettering Cancer Center, New York, NY, USA; [10]Perlmutter Cancer Center at NYU Langone Health, New York City, NY, USA; [11]School of Clinical Sciences at Monash Health, Monash University, Clayton, VIC, Australia; [12]Department of Medicine, Washington University School of Medicine, St. Louis, MO, USA; [13]Genentech, Inc., South San Francisco, CA, USA, [14]F. Hoffmann-La Roche Limited, Mississauga, ON, Canada, [15]City of Hope National Medical Center, Duarte, CA, USA.

Accepted as an Oral Presentation at the 62nd ASH Annual Meeting and Exposition

Mosunetuzumab: full length CD20/CD3 bispecific antibody



Mosunetuzumab regimen



Phase I/Ib GO29781 Trial

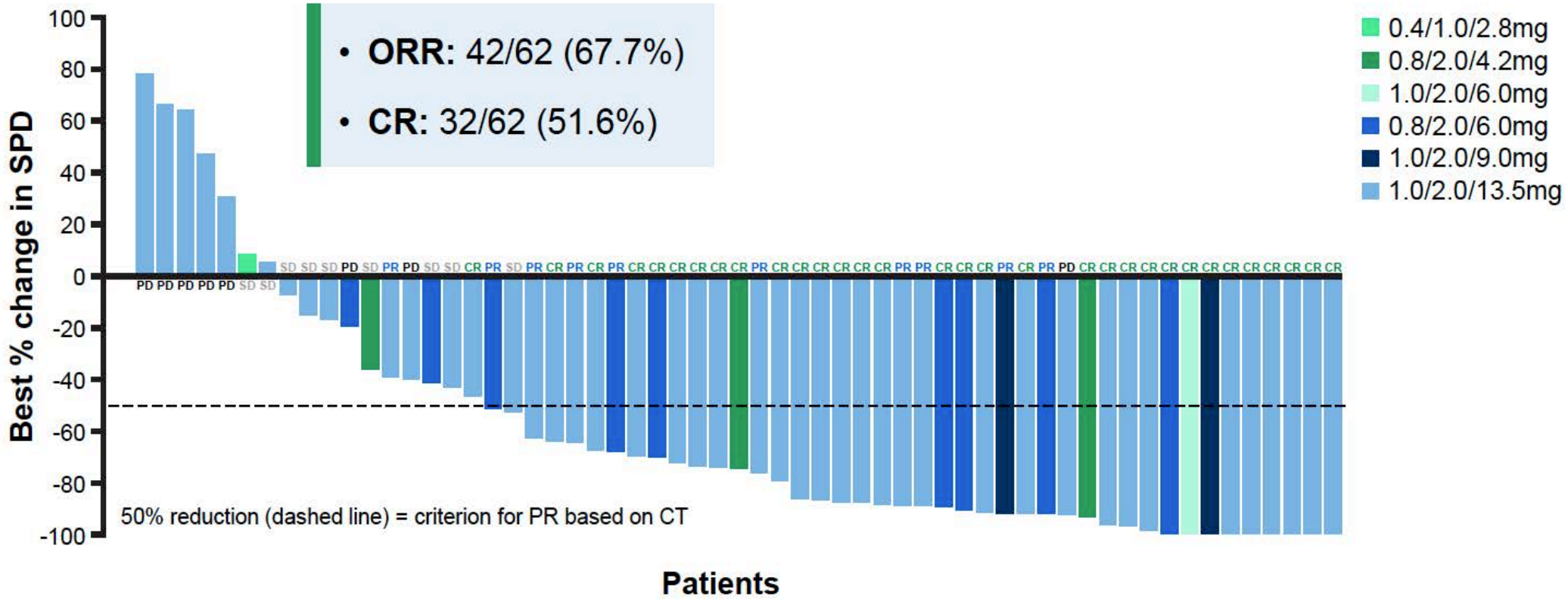
Initial treatment = 8 cycles; if CR achieved, treatment discontinued; if PR or SD, treatment continued for up to 17 cycles

Retreatment allowed for CR patients who relapse

- Schuster et al. ASH 2019

Courtesy of Ann S LaCasce, MD, MMSc

Mosunetuzumab antitumor activity in patients with R/R FL across dose levels



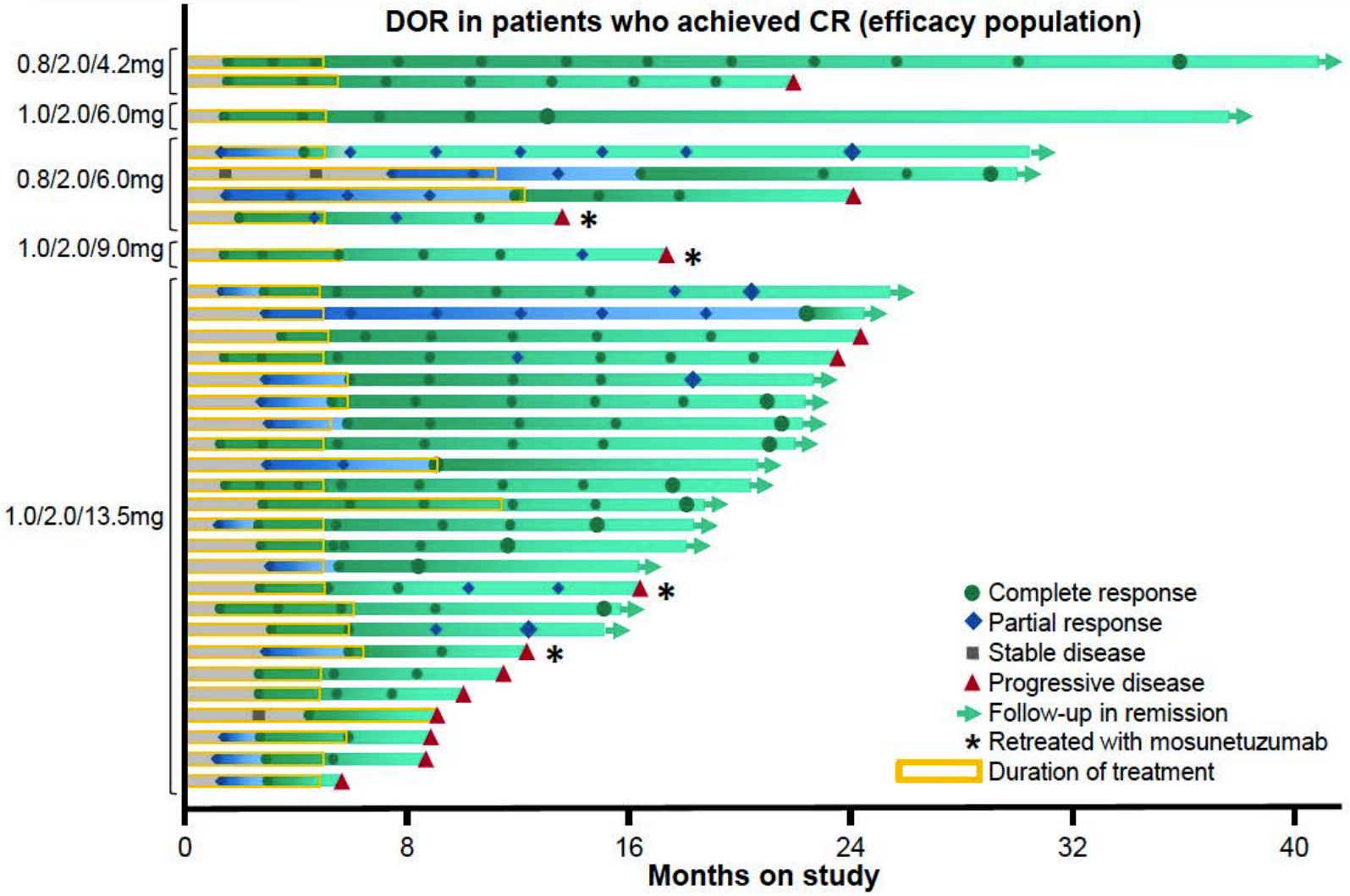
Assessment of higher dose levels is ongoing

SPD, sum of product diameter

1. Cheson BD, et al. J Clin Oncol 2007; 25(5):579–86.

Assouline S et al. ASH 2020;Abstract 702.

Durable responses achieved with mosunetuzumab in patients with R/R FL



Median follow-up after first response (months):
18.4 (range: 2–34)

Median DOR (months):
20.4 (95% CI: 9.4–22.7)

Median DOR in patients achieving CR (months):
21.0 (95% CI: 16.0–22.7)

Retreated patients (N=4):

- **CR:** n=2
- **PR:** n=2

DOR, duration of response

Assouline S et al. ASH 2020;Abstract 702.

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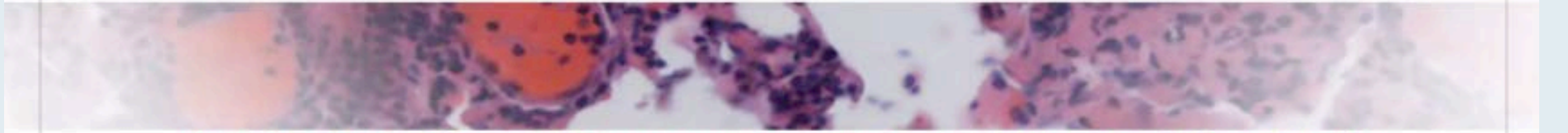

Analyzing Efficacy Outcomes From the Phase 2 Study of Single-Agent Tazemetostat as Third-Line Therapy in Patients With Relapsed or Refractory Follicular Lymphoma to Identify Predictors of Response

Gilles Salles, MD, PhD[1]; Hervé Tilly, MD[2]; Aristeidis Chaidos, MD, PhD[3]; Pamela McKay, MD[4]; Tycel Phillips, MD[5]; Sarit Assouline, MD[6]; Connie Lee Batlevi, MD, PhD[7]; Phillip Campbell, MB, ChB[8]; Vincent Ribrag, MD[9]; Gandhi Laurent Damaj, MD, PhD[10]; Michael Dickinson, DMed Sci[11]; Wojciech Jurczak, MD, PhD[12]; Maciej Kaźmierczak, MD, PhD[13]; Stephen Opat, MBBS[14]; John Radford, MD, FMedSci[15]; Anna Schmitt, PhD[16]; Jennifer Whalen, DHS[17]; Anthony Hamlett, PhD[17]; Beth Kamp, PharmD[17]; Deyaa Adib, MD[17]; Franck Morschhauser, MD[18]

[1]Lyon-Sud Hospital Center, Pierre-Bénite, France; [2]Centre Henri Becquerel, Rouen University, Rouen, France; [3]Centre for Haematology, Imperial College London, Imperial College Healthcare NHS Trust, Hammersmith Hospital, London, UK; [4]Beatson West of Scotland Cancer Centre, Glasgow, Scotland, UK; [5]University of Michigan, Ann Arbor, MI, USA; [6]Sir Mortimer B. Davis-Jewish General Hospital, McGill University, Montreal, Quebec, Canada; [7]Memorial Sloan Kettering Cancer Center, New York, NY, USA; [8]Barwon Health, Geelong, VIC, Australia; [9]Gustave Roussy, Villejuif, France; [10]Hematology Institute, University Hospital School of Medicine, Caen, France; [11]Peter MacCallum Cancer Centre, Melbourne, VIC, Australia; [12]Maria Sklodowska-Curie National Research Institute of Oncology, Krakow, Poland; [13]Examen sp. z o.o, Poznan, Poland, [14]School of Clinical Sciences at Monash Health, Monash University, Victoria, Australia; [15]NIHR Manchester Clinical Research Facility, University of Manchester and the Christie NHS Foundation Trust, Manchester, UK; [16]Institut Bergonie, Bordeaux, France; [17]Epizyme, Inc., Cambridge, MA, USA; [18]Centre Hospitalier Universitaire, Lille, France

Phase 2 Efficacy Outcomes

Efficacy Outcome[a]	Combined WT and MT *EZH2* (N=99)	WT *EZH2* (n=54)[1]	MT *EZH2* (n=45)[1]
ORR, % (95% CI)	51 (40–61)	35 (23-49)	69 (53-82)
Median DOR, months (95% CI)	11 (7–19)	13 (6-NE)	11 (7-NE)
Median PFS, months (95% CI)	12 (8–15)	11 (4-15)	14 (11-22)
Median OS, months (95% CI)	NR (38–NE)	NR	NR

- The DOR was consistent between WT and MT *EZH2* groups[1]
- Consistent ORRs were also observed across high-risk subgroups, such as patients with POD24, double-refractory disease, and refractoriness to rituximab therapy, regardless of mutation status[1]

[a]ORR, DOR, and PFS are based on IRC assessments.

1. Morschhauser F, et al. *Lancet Oncology*; 2020;21(11):1433-42.

CI, confidence interval; DOR, duration of response; ECOG, Eastern Cooperative Oncology Group; EZH2, enhancer of zeste homolog 2; IRC, independent radiology committee; MT, mutant; NE, not estimable; NR, not reached; ORR, objective response rate; OS, overall survival; MT, mutant; NE, not evaluable; NR, not reached; PFS, progression-free survival; WT, wild type.

Salles G et al. ASH 2020;Abstract 2047.

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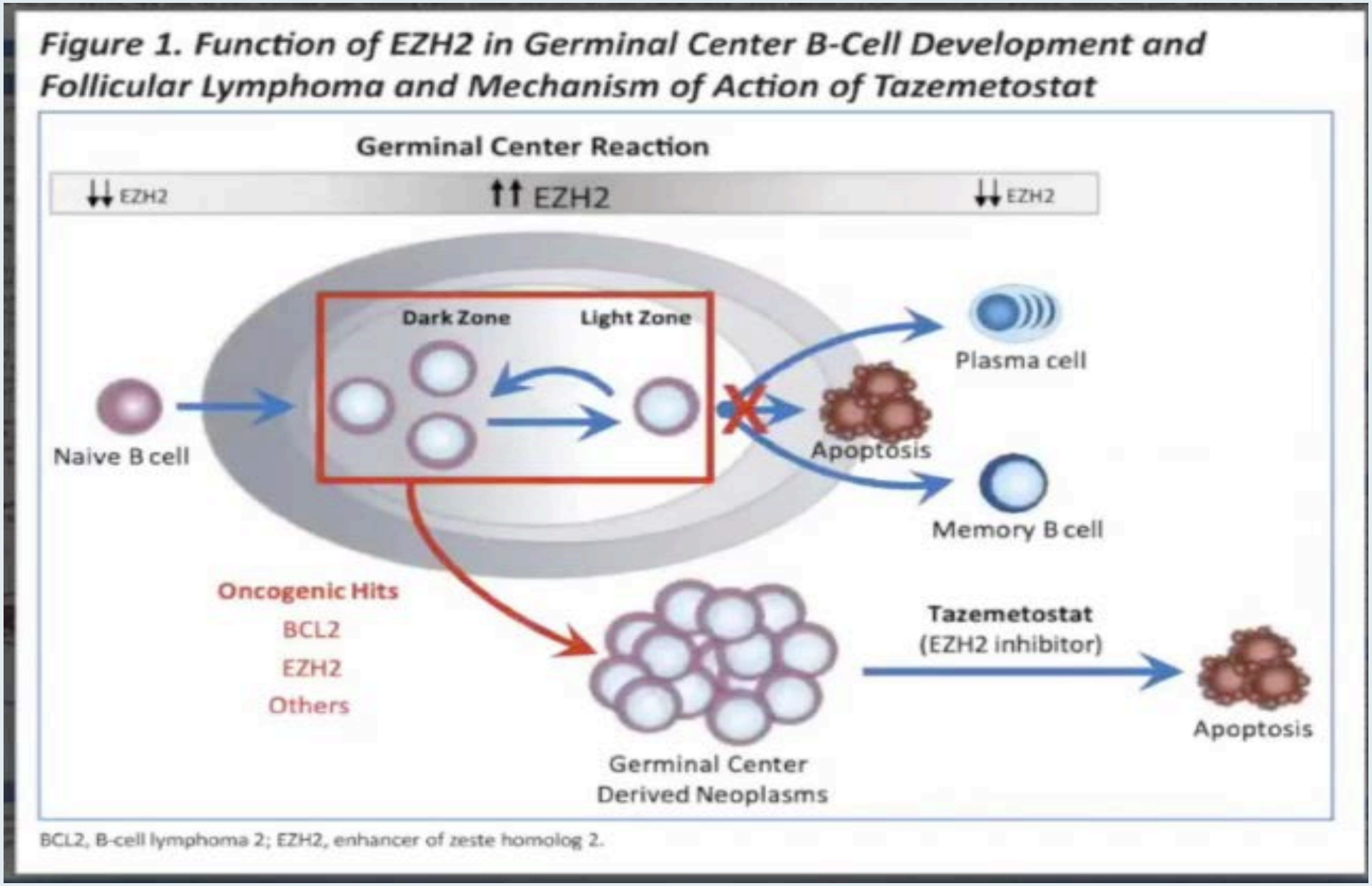
A Phase 1b/3 Randomized, Double-Blind, 3-Stage Study of Tazemetostat or Placebo Plus Lenalidomide and Rituximab in Patients With Relapsed/Refractory Follicular Lymphoma

John Leonard, MD[1]; Connie Lee Batlevi, MD, PhD[2]; Nashat Gabrail, MD[3]; John M. Pagel, MD, PhD[4]; Jay Yang, PhD[5]; Jennifer Whalen, DHS[5]; Deyaa Adib, MD[5]; Franck Morschhauser, MD[6]

[1]Weill Cornell Medicine, New York City, NY, USA; [2]Memorial Sloan Kettering Cancer Center, New York City, NY, USA; [3]Gabrail Cancer Center, Canton, OH, USA; [4]Swedish Cancer Institute, Seattle, WA, USA; [5]Epizyme, Inc., Cambridge, MA, USA; [6]Université Lille, CHU Lille, ULR 7365 – GRITA – Groupe de Recherche sur les formes Injectables et les Technologies Associées, Lille, France



Leonard J et al. ASH 2020;Abstract 2052.

Regulatory and reimbursement issues aside, what would be your most likely initial treatment choice for a 78-year-old patient with Stage III, Grade I or II FL with fatigue and symptomatic bulky adenopathy who requires treatment?

1. Rituximab
2. BR
3. R-CHOP
4. R-CVP
5. Obinutuzumab/bendamustine
6. Obinutuzumab/CHOP
7. Rituximab/lenalidomide
8. Other

Regulatory and reimbursement issues aside, what would be your most likely initial treatment choice for a 78-year-old patient with Stage III, Grade I or II FL with fatigue and symptomatic bulky adenopathy who requires treatment?

 JONATHAN W FRIEDBERG, MD, MMSC	R-bendamustine	 MICHAEL E WILLIAMS, MD, SCM	Rituximab/lenalidomide
 JOHN KURUVILLA, MD	R monotherapy → R maintenance	 CRAIG MOSKOWITZ, MD	R-bendamustine
 ANN S LACASCE, MD, MMSC	R-bendamustine	 LORETTA NASTOUPIL, MD	R-bendamustine
 JOHN P LEONARD, MD	R-bendamustine	 LAURIE H SEHN MD, MPH	R-bendamustine

GENERAL MEDICAL ONCOLOGISTS (N = 75)	R-bendamustine

Regulatory and reimbursement issues aside, what is your usual second-line therapy for a 65-year-old patient with FL who attains a complete response to 6 cycles of BR but then experiences disease relapse 4 years later?

1. Re-treatment with BR
2. Obinutuzumab/bendamustine
3. R-CHOP
4. Rituximab/lenalidomide
5. PI3K inhibitor
6. Tazemetostat
7. Chemotherapy → ASCT
8. Other

Regulatory and reimbursement issues aside, what is your usual second-line therapy for a 65-year-old patient with FL who achieves a complete response to 6 cycles of bendamustine/rituximab (BR) but then experiences disease relapse 4 years later?

 JONATHAN W FRIEDBERG, MD, MMSC	Rituximab/lenalidomide or Obinutuzumab/lenalidomide	 MICHAEL E WILLIAMS, MD, SCM	Chemotherapy → autologous transplant
 JOHN KURUVILLA, MD	R-CHOP → R maintenance	 CRAIG MOSKOWITZ, MD	Rituximab/lenalidomide
 ANN S LACASCE, MD, MMSC	Rituximab/lenalidomide	 LORETTA NASTOUPIL, MD	Rituximab/lenalidomide
 JOHN P LEONARD, MD	Rituximab/lenalidomide	 LAURIE H SEHN MD, MPH	Rituximab/lenalidomide
GENERAL MEDICAL ONCOLOGISTS (N = 75)	Rituximab/lenalidomide		

What is your usual third-line treatment for a patient with FL (EZH2 wild type) who received first-line BR, second-line lenalidomide/rituximab and then develops disease progression?

 JONATHAN W FRIEDBERG, MD, MMSC	R-CHOP	 MICHAEL E WILLIAMS, MD, SCM	Copanlisib
 JOHN KURUVILLA, MD	Depends on duration of remission	 CRAIG MOSKOWITZ, MD	Copanlisib
 ANN S LACASCE, MD, MMSC	Copanlisib	 LORETTA NASTOUPIL, MD	Copanlisib
 JOHN P LEONARD, MD	Idelalisib	 LAURIE H SEHN MD, MPH	Clinical trial

GENERAL MEDICAL ONCOLOGISTS (N = 75)	Idelalisib

What is your usual third-line treatment for a patient with FL with an EZH2 mutation who received first-line BR, second-line lenalidomide/rituximab and then develops disease progression?

 JONATHAN W FRIEDBERG, MD, MMSC	Tazemetostat	 MICHAEL E WILLIAMS, MD, SCM	Tazemetostat
 JOHN KURUVILLA, MD	Tazemetostat	 CRAIG MOSKOWITZ, MD	Tazemetostat
 ANN S LACASCE, MD, MMSC	Tazemetostat	 LORETTA NASTOUPIL, MD	Tazemetostat
 JOHN P LEONARD, MD	Tazemetostat	 LAURIE H SEHN MD, MPH	Tazemetostat
GENERAL MEDICAL ONCOLOGISTS (N = 75)	Tazemetostat		

Agenda

Module 1: Evolving treatment paradigm for patients with diffuse large B-cell lymphoma (DLBCL) – Dr LaCasce

Module 2: Optimal management of newly diagnosed and relapsed/refractory follicular lymphoma – Dr Leonard

Module 3: Available and emerging approaches for mantle cell lymphoma – Dr Williams

Module 4: Selection and sequencing of therapies for patients with advanced Hodgkin lymphoma – Dr Kuruvilla

Module 5: Advances in chimeric antigen receptor T-cell therapy for DLBCL and other lymphoma subtypes – Dr Friedberg

Memorial Sloan Kettering Cancer Center

Frontline Sequential Immunochemotherapy Plus Lenalidomide for Mantle Cell Lymphoma Incorporating MRD Evaluation: Phase II, Investigator-Initiated, Single-Center Study

Zachary D. Epstein-Peterson, MD, Esther Drill, DrPH, Umut Aypar, PhD, Connie Lee Batlevi, MD, PhD, Philip Caron, MD, PhD, Ahmet Dogan, MD, PhD, Pamela Drullinsky, MD, John Gerecitano, MD, PhD , Audrey Hamilton, MD, Paul A. Hamlin, MD , Caleb Ho, MD, Allison P. Jacob, Leana Laraque, BA, Matthew J Matasar, MD, Alison J. Moskowitz, MD, Craig H. Moskowitz, MD, Chelsea D Mullins, BS, Colette Owens, MD, Gilles Salles, MD, Heiko Schöder, MD, David J. Straus, MD, Anas Younes, MD, Andrew D. Zelenetz, MD, PhD, Anita Kumar, MD

Conclusions

- Clinical outcomes:
  - High ORR/CR rates achieved
  - We did not reach our primary study endpoint
    - Driven by patients with *TP53*-mutated MCL
    - Among patients with *TP53* wt. disease, treatment was effective, even among those with Ki-67 ≥30% and/or blastic morphology: 3-year PFS 69% (improved compared to historical benchmark)
    - Substantiates other data suggesting targeted therapy should be frontline SOC for *TP53*-mutant MCL rather than immunochemotherapy
- MRD outcomes:
  - High rate of MRD(-) after induction immunochemotherapy (len-R-CHOP + R-HiDAC) at 10^{-5} (97%) and 10^{-6} (80%)
    - Latter predicted remission duration
  - Many patients converted to MRD(-) after R-HiDAC, highlighting the efficacy of cytarabine in MCL
  - Several patients converted MRD(-) to MRD(+) at 6 months post-EOT and relapsed
    - ?Longer maintenance treatment period beneficial
  - MRD at 10^{-6} sensitivity at 6 months post-EoT predicted remission duration

Epstein-Peterson ZD et al. ASH 2020;Abstract 119.

Predictive power of early, sequential MRD monitoring in peripheral blood and bone marrow in patients with mantle cell lymphoma following autologous stem cell transplantation with or without Rituximab maintenance ; final results from the LyMa-MRD project, conducted on behalf of the LYSA group.

Mary Callanan, Elizabeth Macintyre, Marie-Hélène Delfau, Catherine Thieblemont, Lucie Oberic, Emmanuel Gyan, Krimo Bouabdallah, Rémy Gressin, Gandhi Damaj, Olivier Casasnovas, Vincent Ribrag, Samuel Griolet, Bénédicte Burlet, Benjamin Tournier, Sylviane Ragot, Caroline Bodet-Milin, Olivier Hermine, and Steven Le Gouill (NCI NCT00921414).

Sat. Dec. 5th, ASH 2020, Abstract #120
Session Name: 623. Mantle Cell, Follicular, and Other Indolent B-Cell Lymphoma—Clinical Studies: Mantle Cell Lymphoma Clinical Trials

Conclusions / perspectives

- Pre-ASCT MRD status in both BM and PB is an early predictor of PFS and OS in younger MCL patients receiving ASCT.

- Rituximab maintenance provides longer PFS and OS regardless of MRD status pre- or post-ASCT, suggestive of continued, clinically relevant anti-tumor activity of Rituximab against very rare residual circulating and/or 'tissue-resident' MCL cells.

- Integration of PET and molecular MRD status increases early predictive power of either technique alone – new perspectives for MCL management…

- Early sequential MRD monitoring at the pre- and post-ASCT treatment phase offers strong potential for early clinical outcome prediction and MRD-guided, risk-adapted treatment in future MCL trials.

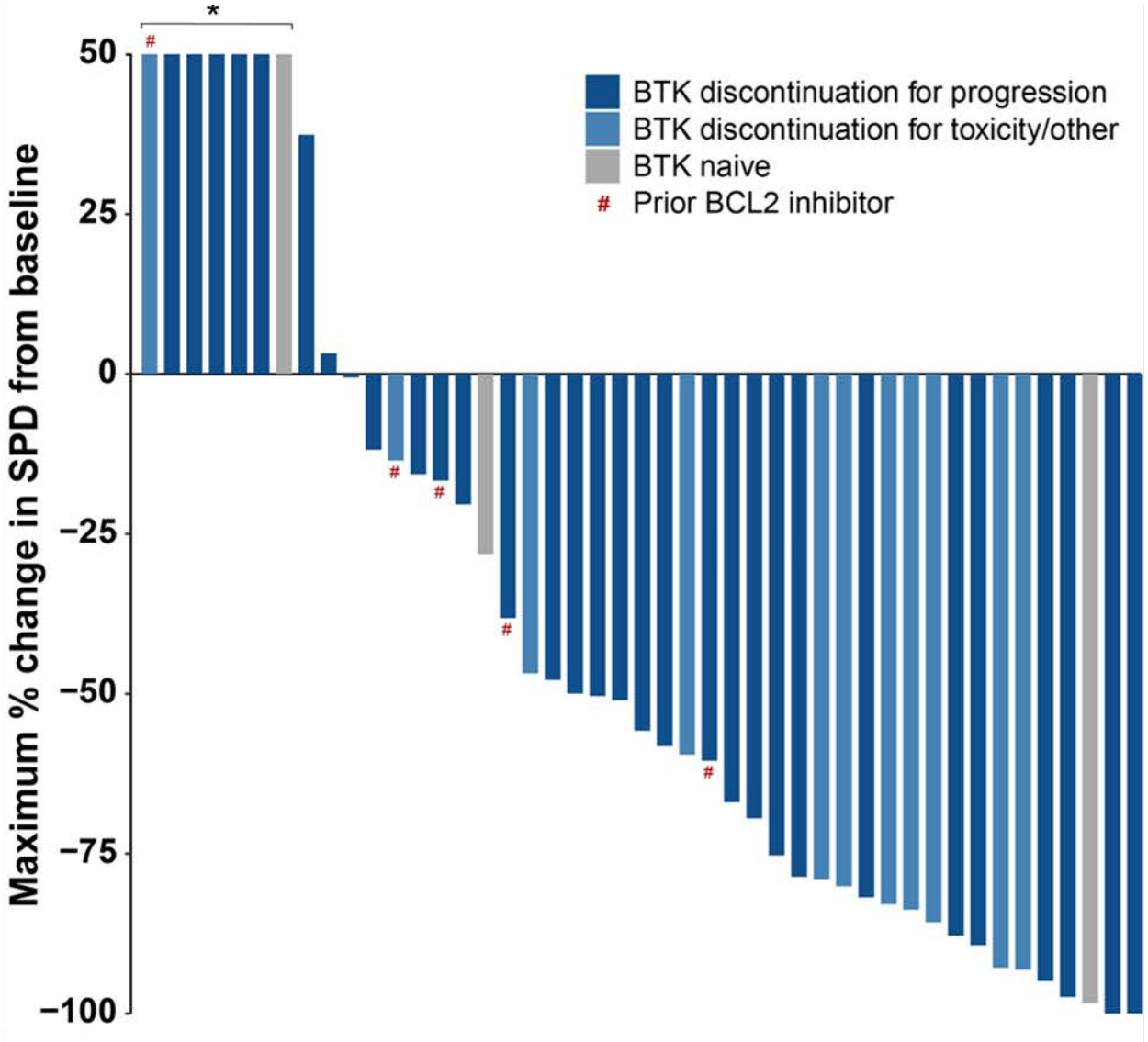
Callanan, M et al, ASH 2020

LOXO-305, a Next Generation, Highly Selective, Non-Covalent BTK Inhibitor in Previously Treated Mantle Cell Lymphoma, Waldenström's Macroglobulinemia, and Other Non-Hodgkin Lymphomas: Results from the Phase 1/2 BRUIN Study

Michael L. Wang[1], Nirav N. Shah[2], Alvaro J. Alencar[3], James N. Gerson[4], Manish R. Patel[5], Bita Fakhri[6], Wojciech Jurczak[7], Xuan Tan[8], Katharine Lewis[8], Timothy Fenske[9], Catherine C. Coombs[10], Ian Flinn[11], David Lewis[12], Steven Le Gouill[13], M. Lia Palomba[14], Jennifer Woyach[15], John M. Pagel[16], Nicole Lamanna[17], Jonathon B. Cohen[18], Minal A. Barve[19], Paolo Ghia[20], Toby A. Eyre[21], Ming Yin[22], Binoj Nair[22], Donald E. Tsai[22], Nora C. Ku[22], Anthony R. Mato[14], Chan Y. Cheah[8]

[1]Department of Lymphoma and Myeloma, The University of Texas MD Anderson Cancer Center, Houston, TX; [2]Medical College of Wisconsin, Brookfield, WI; [3]Sylvester Comprehensive Cancer Center, University of Miami, Miller School of Medicine, Miami, FL; [4]Lymphoma Program, Abramson Cancer Center, University of Pennsylvania, Philadelphia, PA; [5]Florida Cancer Specialists / Sarah Cannon Research Institute, Sarasota, FL; [6]Division of Hematology and Oncology, University of California, San Francisco, CA; [7]Maria Sklodowska-Curie National Research Institute of Oncology, Krakow, Poland; [8]Linear Clinical Research and Sir Charles Gairdner Hospital, Perth, Australia; [9]Division of Hematology and Oncology, Medical College of Wisconsin, Milwaukee, WI; [10]Lineberger Comprehensive Cancer Center, University of North Carolina, Chapel Hill, NC; [11]Sarah Cannon Research Institute/Tennessee Oncology, Nashville, TN; [12]Plymouth Hospitals NHS Trust - Derriford Hospital, Plymouth, United Kingdom; [13]Service d'hématologie clinique du CHU de Nantes, INSERM CRCINA Nantes-Angers, NeXT Université de Nantes, Nantes, France; [14]Memorial Sloan Kettering Cancer Center, New York, NY; [15]The Ohio State University Comprehensive Cancer Center, Columbus, OH; [16]Center for Blood Disorders and Stem Cell Transplantation, Swedish Cancer Institute, Seattle, WA; [17]Herbert Irving Comprehensive Cancer Center, Columbia University, New York, NY; [18]Winship Cancer Institute, Emory University, Atlanta, GA; [19]Mary Crowley Cancer Research, Dallas, TX; [20]Università Vita-Salute San Raffaele and IRCCS Ospedale San Raffaele, Milano, MI, Italy; [21]Churchill Cancer Center, Oxford University Hospitals NHS Foundation Trust, Old Road, United Kingdom; [22]Loxo Oncology at Lilly, Stamford, CT

Efficacy of LOXO-305 in Mantle Cell Lymphoma



Data cutoff date of 27 September 2020. Total % may be different than the sum of the individual components due to rounding. Data for 11 MCL patients are not shown in the waterfall plot due to 7 having no target lesions identified by CT at baseline (including 4 patients who achieved a best response of CR by PET), 1 with no/incomplete post-baseline lesion measurements, and 3 discontinued prior to first post-baseline disease assessment. *Indicates patients with >50% increase in SPD. [a]Efficacy evaluable patients are those who had at least one post-baseline response assessment or had discontinued treatment prior to first post-baseline response assessment. [b]ORR includes patients with a best response of CR and PR. Response status per Lugano criteria.

Wang ML et al. ASH 2020;Abstract 117.

Efficacy of LOXO-305 in Mantle Cell Lymphoma

All MCL Patients[a]	n=56
Overall Response Rate[b], % (95% CI)	**52% (38-65)**
Best Response	
CR, n (%)	14 (25)
PR, n (%)	15 (27)
SD, n (%)	10 (18)
BTK Pre-Treated MCL Patients[a]	**n=52**
Overall Response Rate[b], % (95% CI)	**52% (38-66)**
Best Response	
CR, n (%)	13 (25)
PR, n (%)	14 (27)
SD, n (%)	9 (17)

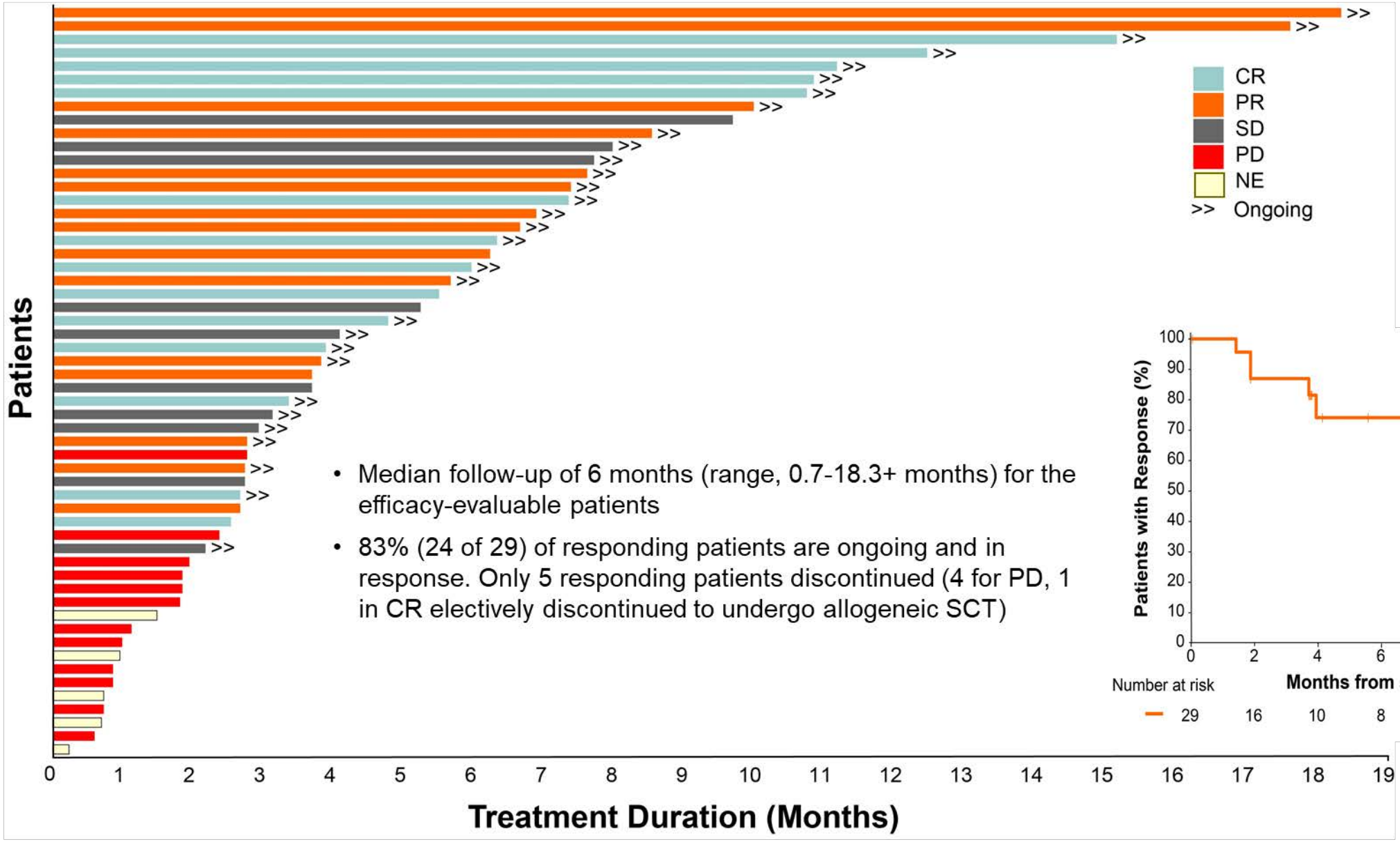
Efficacy also seen in patients with prior:

- Stem cell transplant: ORR 64% (9/14)
- CAR-T therapy: ORR 100% (2/2)

Data cutoff date of 27 September 2020. Total % may be different than the sum of the individual components due to rounding. Data for 11 MCL patients are not shown in the waterfall plot due to 7 having no target lesions identified by CT at baseline (including 4 patients who achieved a best response of CR by PET), 1 with no/incomplete post-baseline lesion measurements, and 3 discontinued prior to first post-baseline disease assessment. *Indicates patients with >50% increase in SPD. [a]Efficacy evaluable patients are those who had at least one post-baseline response assessment or had discontinued treatment prior to first post-baseline response assessment. [b]ORR includes patients with a best response of CR and PR. Response status per Lugano criteria.

Wang ML et al. ASH 2020;Abstract 117.

LOXO-305 Treatment Duration in Mantle Cell Lymphoma



- Median follow-up of 6 months (range, 0.7-18.3+ months) for the efficacy-evaluable patients
- 83% (24 of 29) of responding patients are ongoing and in response. Only 5 responding patients discontinued (4 for PD, 1 in CR electively discontinued to undergo allogeneic SCT)

Data cutoff date of 27 September 2020.

Wang ML et al. ASH 2020;Abstract 117.

A 78-year-old patient with MCL initially treated with BR followed by 2 years of maintenance rituximab experiences disease relapse 3 years later. The patient is otherwise healthy. What would you recommend?

1. Ibrutinib
2. Acalabrutinib
3. Zanubrutinib
4. Lenalidomide
5. Lenalidomide + rituximab
6. Venetoclax
7. Venetoclax + rituximab
8. Other

RTP
RESEARCH
TO PRACTICE

A 78-year-old patient with MCL initially treated with BR followed by 2 years of rituximab maintenance experiences disease relapse 3 years later. The patient is otherwise healthy. What would you recommend?

 JONATHAN W FRIEDBERG, MD, MMSC	Acalabrutinib	 MICHAEL E WILLIAMS, MD, SCM	Acalabrutinib
 JOHN KURUVILLA, MD	Ibrutinib	 CRAIG MOSKOWITZ, MD	Acalabrutinib
 ANN S LACASCE, MD, MMSC	Zanubrutinib	 LORETTA NASTOUPIL, MD	Acalabrutinib
 JOHN P LEONARD, MD	Acalabrutinib	 LAURIE H SEHN MD, MPH	Ibrutinib

GENERAL MEDICAL ONCOLOGISTS (N = 75)	Ibrutinib, Acalabrutinib

Have you administered or would you administer a Bruton tyrosine kinase (BTK) inhibitor as front-line treatment to a patient with MCL who is too frail to receive chemotherapy?

1. I haven’t and would not
2. I haven’t but would for the right patient
3. I have

RTP
RESEARCH
TO PRACTICE

Have you administered or would you administer a BTK inhibitor as front-line treatment to a patient with MCL who is too frail to receive chemotherapy?

 JONATHAN W FRIEDBERG, MD, MMSC	I haven't and would not
 JOHN KURUVILLA, MD	I haven't but would for the right patient
 ANN S LACASCE, MD, MMSC	I haven't but would for the right patient
 JOHN P LEONARD, MD	I haven't but would for the right patient
 MICHAEL E WILLIAMS, MD, SCM	I haven't but would for the right patient
 CRAIG MOSKOWITZ, MD	I have
 LORETTA NASTOUPIL, MD	I have
 LAURIE H SEHN MD, MPH	I have

GENERAL MEDICAL ONCOLOGISTS (N = 75)	I haven't but would for the right patient

Regulatory and reimbursement issues aside, would you attempt to access venetoclax for select patients with relapsed/refractory MCL?

1. Yes, as up-front treatment
2. Yes, after a BTK inhibitor
3. Yes, after a BTK inhibitor → lenalidomide
4. Yes, in other situations
5. No

RTP
RESEARCH
TO PRACTICE

Regulatory and reimbursement issues aside, would you attempt to access venetoclax for select patients with relapsed/refractory MCL?

 JONATHAN W FRIEDBERG, MD, MMSC	Yes, after a BTK inhibitor → lenalidomide	 MICHAEL E WILLIAMS, MD, SCM	Yes, after a BTK inhibitor
 JOHN KURUVILLA, MD	Yes, after a BTK inhibitor	 CRAIG MOSKOWITZ, MD	Yes, after a BTK inhibitor → lenalidomide
 ANN S LACASCE, MD, MMSC	Yes, after a BTK inhibitor	 LORETTA NASTOUPIL, MD	Yes, after a BTK inhibitor
 JOHN P LEONARD, MD	Yes, after a BTK inhibitor → lenalidomide	 LAURIE H SEHN MD, MPH	Yes, after a BTK inhibitor

GENERAL MEDICAL ONCOLOGISTS (N = 75)	Yes, after a BTK inhibitor; Yes, after a BTK inhibitor → lenalidomide

In general, what would be your most likely treatment recommendation for a 70-year-old patient with MCL who responds to BR and then to ibrutinib on relapse but then develops rapid tumor progression?

1. Lenalidomide
2. Lenalidomide + rituximab
3. Bortezomib
4. Bortezomib + rituximab
5. Venetoclax
6. Acalabrutinib
7. Zanubrutinib
8. Brexucabtagene autoleucel
9. Other

In general, what would be your most likely treatment recommendation for a 70-year-old patient with MCL who responds to BR and then ibrutinib on relapse but then develops rapid tumor progression?

 JONATHAN W FRIEDBERG, MD, MMSC	Brexucabtagene autoleucel
 JOHN KURUVILLA, MD	Brexucabtagene autoleucel
 ANN S LACASCE, MD, MMSC	Brexucabtagene autoleucel
 JOHN P LEONARD, MD	Brexucabtagene autoleucel
 MICHAEL E WILLIAMS, MD, SCM	Venetoclax
 CRAIG MOSKOWITZ, MD	Bridge therapy to CAR T-cell therapy
 LORETTA NASTOUPIL, MD	Brexucabtagene autoleucel
 LAURIE H SEHN MD, MPH	Brexucabtagene autoleucel
GENERAL MEDICAL ONCOLOGISTS (N = 75)	Venetoclax

Agenda

Module 1: Evolving treatment paradigm for patients with diffuse large B-cell lymphoma (DLBCL) – Dr LaCasce

Module 2: Optimal management of newly diagnosed and relapsed/refractory follicular lymphoma – Dr Leonard

Module 3: Available and emerging approaches for mantle cell lymphoma – Dr Williams

Module 4: Selection and sequencing of therapies for patients with advanced Hodgkin lymphoma – Dr Kuruvilla

Module 5: Advances in chimeric antigen receptor T-cell therapy for DLBCL and other lymphoma subtypes – Dr Friedberg

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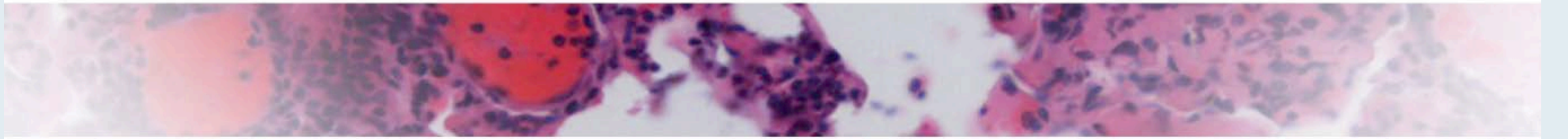
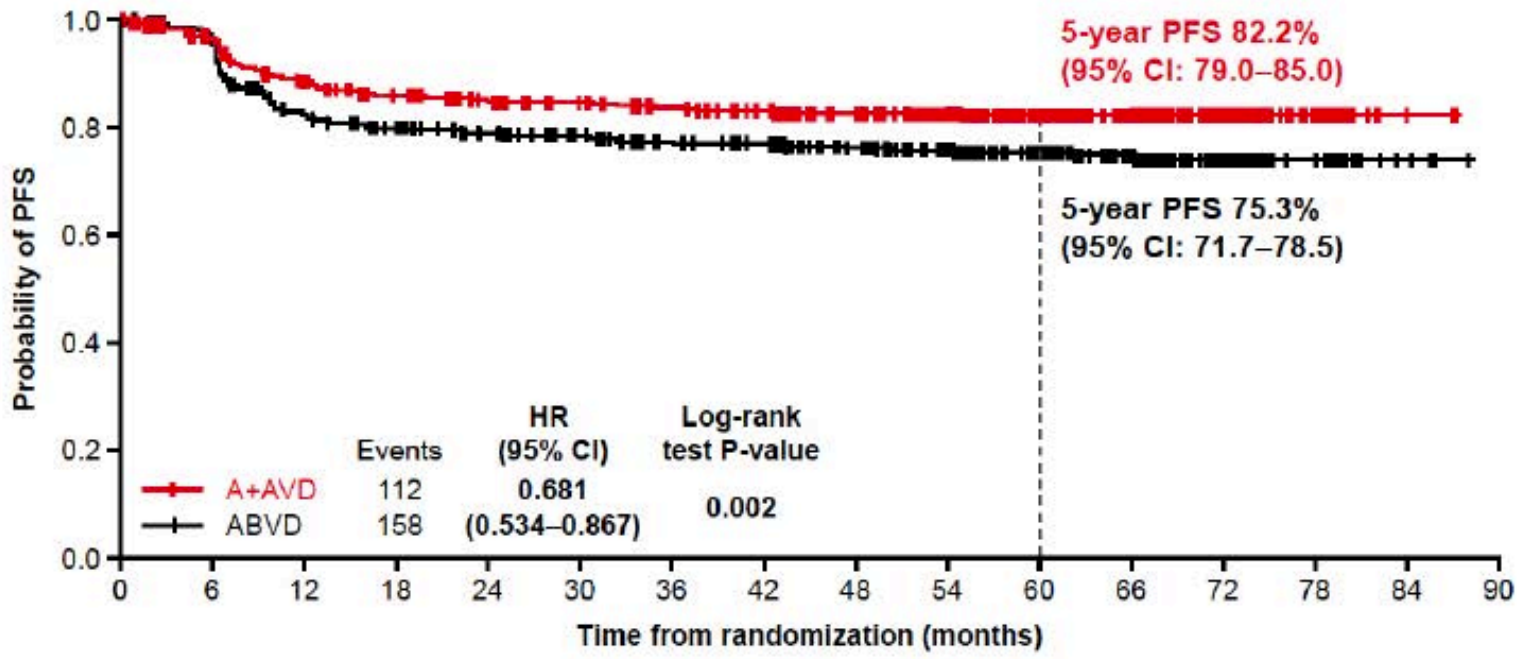


Brentuximab Vedotin with Chemotherapy for Patients with Previously Untreated, Stage III/IV Classical Hodgkin Lymphoma: 5-Year Update of the ECHELON-1 Study

David J. Straus,[1] Monika Długosz-Danecka,[2] Joseph M. Connors,[3] Árpád Illés,[4] Marco Picardi,[5] Ewa Lech-Maranda,[6] Tatyana Feldman,[7] Piotr Smolewski,[8] Kerry J. Savage,[3] Nancy L. Bartlett,[9] Jan Walewski,[10] Radhakrishnan Ramchandren,[11] Pier Luigi Zinzani,[12] Martin Hutchings,[13] Javier Munoz,[14] Won Seog Kim,[15] Ranjana Advani,[16] Stephen M. Ansell,[17] Anas Younes,[1] Andrea Gallamini,[18] Rachael Liu,[19] Meredith Little,[19] Keenan Fenton,[20] Michelle Fanale,[20] John Radford[21]

[1]Department of Medicine, Lymphoma Service, Memorial Sloan Kettering Cancer Center, New York, NY, USA; [2]Maria Sklodowska-Curie National Research Institute of Oncology, Kraków, Poland; [3]BC Cancer Centre for Lymphoid Cancer, Vancouver, Canada; [4]University of Debrecen, Debrecen, Hungary; [5]Department of Clinical Medicine and Surgery, Federico II University, Naples, Italy; [6]Department of Hematology, Institute of Hematology and Transfusion Medicine, Warsaw, Poland; [7]Hackensack University Medical Center, Hackensack, NJ, USA; [8]Department of Experimental Hematology. Medical University of Lodz, Poland; [9]Washington University School of Medicine Siteman Cancer Center, St Louis, MO, USA; [10]Maria Sklodowska-Curie Institute and Oncology Centre, Warsaw, Poland; [11]The University of Tennessee Graduate School of Medicine, Knoxville, TN, USA; [12]Azienda Ospedaliero-Universitaria di Bologna, Bologna, Italy, and Istituto di Ematologia "Seràgnoli", Dipartimento di Medicina Specialistica, Diagnostica e Sperimentale, Università degli Studi, Bologna, Italy; [13]Department of Haematology, Rigshospitalet, Copenhagen University Hospital, Copenhagen, Denmark; [14]Banner MD Anderson Cancer Center, Gilbert, AZ, USA; [15]Division of Hematology-Oncology, Department of Internal Medicine, Samsung Medical Center, Sungkyunkwan University School of Medicine, Seoul, Republic of Korea; [16]Department of Medicine, Division of Oncology, Stanford University, Stanford, CA, USA; [17]Division of Hematology, Mayo Clinic, Rochester, MN, USA; [18]Research and Innovation, Antoine-Lacassagne Cancer Centre, Nice, France; [19]Millennium Pharmaceuticals, Inc., Cambridge, MA, USA, a wholly owned subsidiary of Takeda Pharmaceutical Company Limited; [20]Seattle Genetics, Inc., Bothell, WA, USA; [21]The University of Manchester and the Christie NHS Foundation Trust, Manchester Academic Health Science Centre, Manchester, United Kingdom

ECHELON-1: PFS per investigator at 5 years' follow-up*



- As of the 5-year follow-up, the prespecified number of events required to trigger an OS analysis have not been reached.
- OS was a prespecified key secondary endpoint.

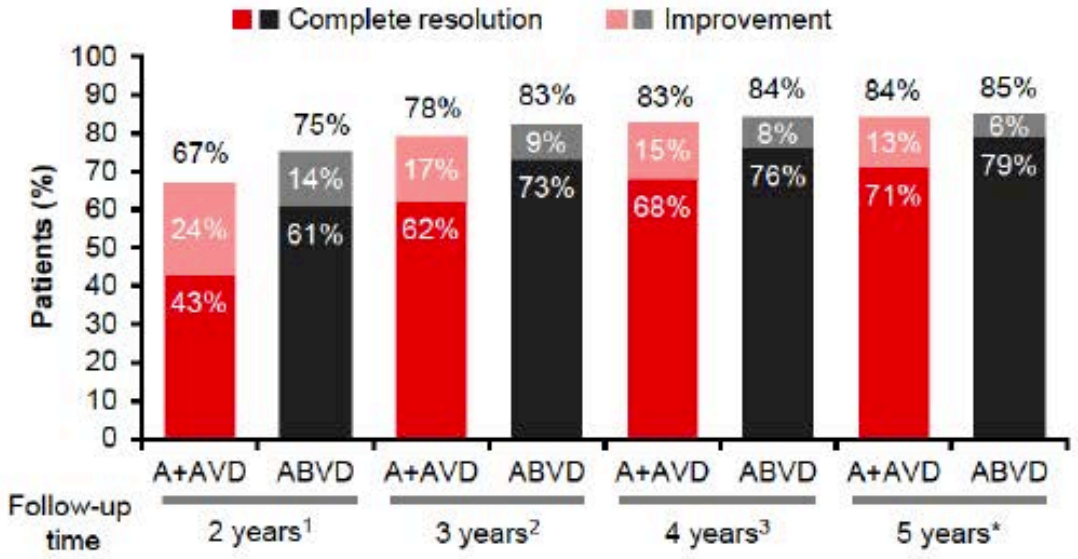
*September 14, 2020 data cut-off.

Straus DJ et al. ASH 2020;Abstract 2973.

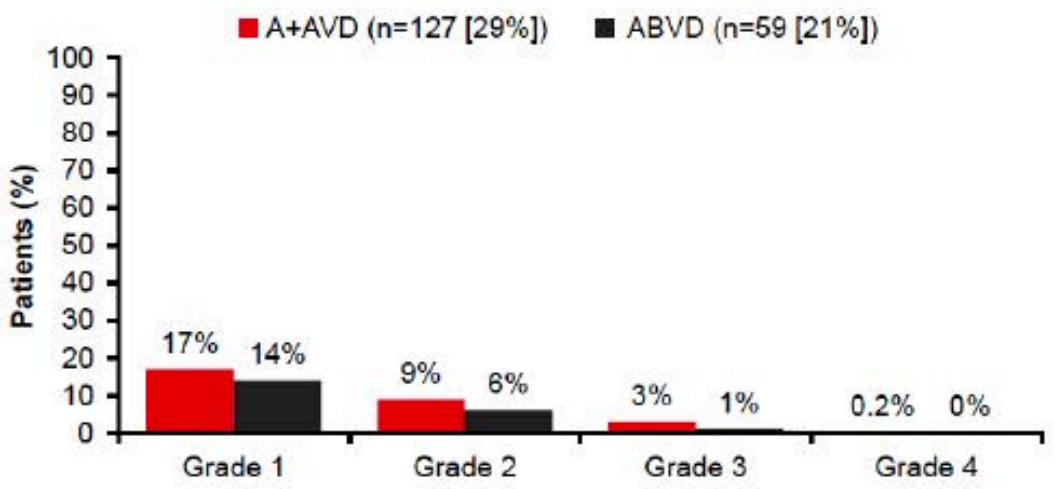
ECHELON-1: PN resolution and improvement

- At the primary analysis, 442 and 286 patients in A+AVD and ABVD arms, respectively, had experienced PN.

Patients with complete resolution or improvement of PN over time (%)*



Patients with ongoing PN by grade at last follow-up†



Resolution was defined as event outcome of "resolved" or "resolved with sequelae"; Improvement was defined as "improved by ≥1 grade from worst grade as of the latest assessment"; *Percentages rounded to nearest integer; †Median follow-up 236.9 weeks (range: 0–344); Assessment of ongoing PN with maximum severity of grade 3/4 was confounded in 12 of the 15 A+AVD patients by death prior to resolution (n=3), loss to follow-up (n=4), and withdrawal from study (n=5); Among the ABVD patients with grade 3 PN, two were lost to follow-up and two died prior to resolution of PN.

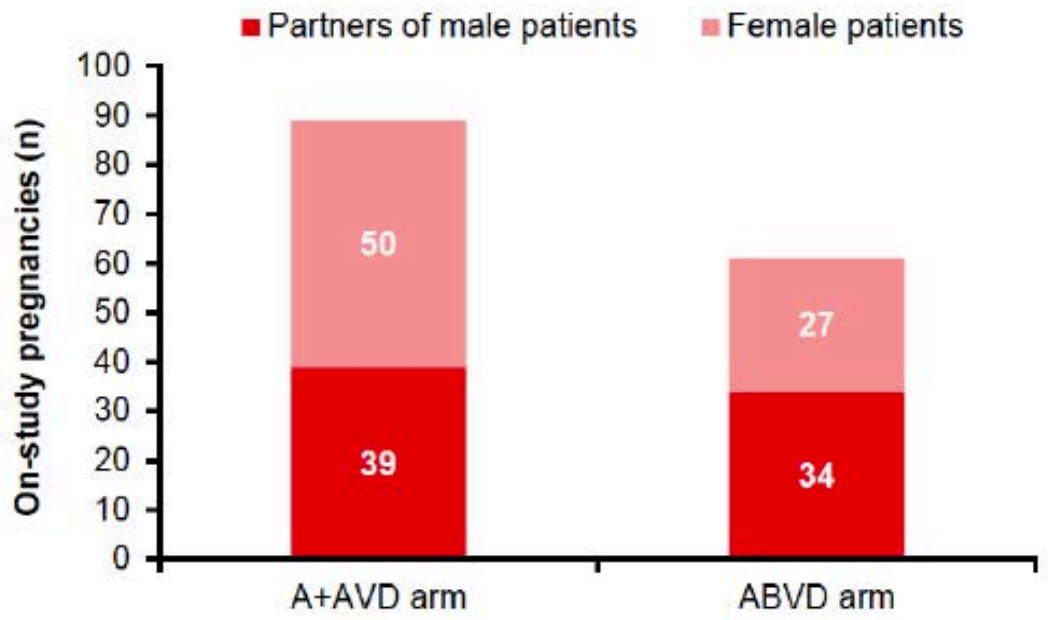
1. Connors JM, et al. N Engl J Med 2018;378:331–44;
2. Straus DJ, et al. Blood 2020;135:735–42;
3. Bartlett NL, et al. Blood 2019;134 (Suppl. 1):4026.

Straus DJ et al. ASH 2020;Abstract 2973.

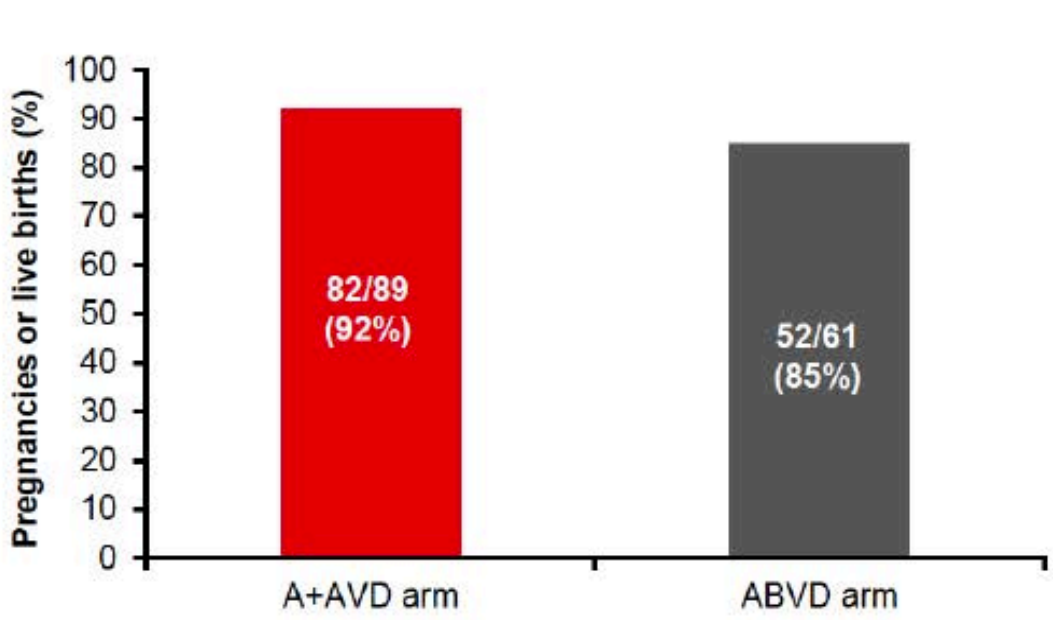
ECHELON-1: Pregnancies

- A total of 150 pregnancies were reported among study participants and their partners.

On-study pregnancies in patients or their partners



Ongoing pregnancies or live births



Straus DJ et al. ASH 2020;Abstract 2973.

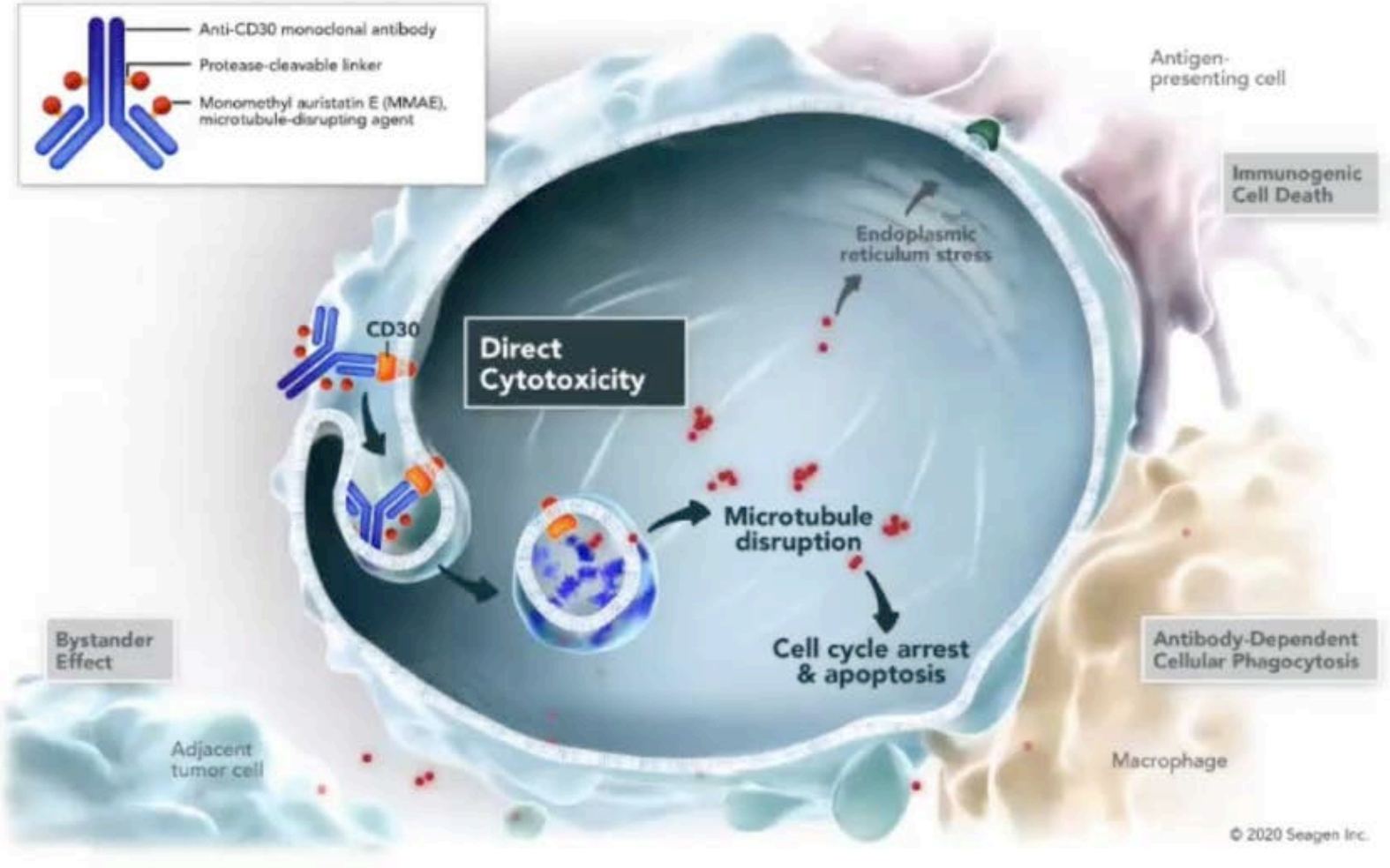
FRONTLINE BRENTUXIMAB VEDOTIN AS MONOTHERAPY OR IN COMBINATION FOR OLDER HODGKIN LYMPHOMA PATIENTS

Christopher A. Yasenchak[1], Rodolfo Bordoni[2], Dipti Patel-Donnelly[3], Timothy Larson[4], Jerome Goldschmidt[5], Ralph Boccia[6], Vivian J. M. Cline[7], Mariana Sacchi[8], Andres Forero-Torres[9], Robert Sims[9], Jingmin Liu[9], Jonathan W. Friedberg[10]

[1]Willamette Valley Cancer Institute and Research Center/US Oncology Research, Eugene, OR; [2]Georgia Cancer Specialists, Marietta, GA; [3]Virginia Cancer Specialists, Fairfax, VA; [4]Minnesota Oncology P.A., Minneapolis, MN; [5]Oncology and Hematology Associates of SW Virginia, Blacksburg VA; [6]Center for Cancer and Blood Disorders, Bethesda, MD; [7]US Oncology, Austin, TX; [8]Bristol Myers Squibb, Princeton, NJ; [9]Seagen Inc., Bothell, WA; [10]University of Rochester Medical Center, Rochester, NY

American Society of Hematology Annual Meeting; December 5-8, San Diego, CA; Abstract No. 471

Brentuximab Vedotin Proposed Mechanism of Action



Yasenchak CA et al. ASH 2020;Abstract 471.

Best Responses per Investigator – Efficacy Evaluable Set

Efficacy Evaluable Set	Part A BV mono N=25	Part B BV+DTIC N=19	Part C BV+benda N=17	Part D BV+nivo N=19
ORR, n (%)	**23 (92)**	**19 (100)**	**17 (100)**	**18 (95)**
Best overall response				
Complete response	18 (72)	13 (68)	15 (88)	15 (79)
Partial response	5 (20)	6 (32)	2 (12)	3 (16)
Stable disease	2 (8)	0	0	1 (5)
Progressive disease	0	0	0	0
Duration of response, n	23	19	17	18
Median (min, max)	9.1 (2.8, 81.4+)	45.4 (0.0+, 67.3)	39.0 (0.0+, 56.8+)	NR (1.4+, 27.5+)

Patients who were not efficacy-evaluable included:

- Patients with no post-baseline response assessment due to deaths (n=3) and patient withdrawal (non-AE related, n=2) on or before the first scheduled post-baseline scan at Cycle 2
- One patient lost to follow-up
- One patient who was not an eligible cHL subtype (nodular lymphocyte-predominant HL) but still achieved partial response after receiving BV

Yasenchak CA et al. ASH 2020;Abstract 471.

Summary

Treatment options for older adults with cHL that may not be considered for conventional combination therapy:

- **BV monotherapy**
  - Active regimen in elderly population
    - Median 78 years of age
    - Median follow up of 54.5 months
    - ORR 92% (95% CI: 74%, 99%)
    - Median OS >6 years
  - Notable activity and tolerability in cHL patients unable to tolerate a multi-agent regimen
- **BV combination treatments**
  - BV+nivo and BV+DTIC
    - Promising activity (ORR 95%-100%)
    - Favorable safety profile in older adults with previously untreated cHL
  - BV+benda associated with multiple acute toxicities
  - Additional long-term follow-up is ongoing

Yasenchak CA et al. ASH 2020;Abstract 471.

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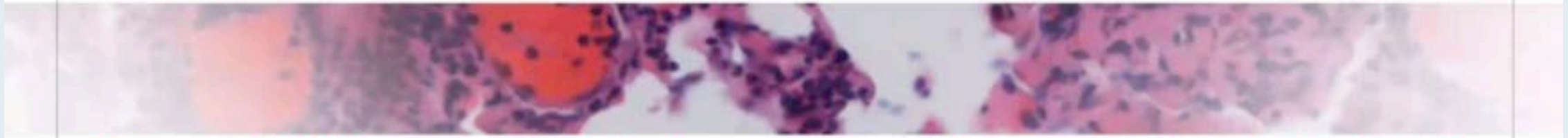


Consolidation with Nivolumab and Brentuximab Vedotin After Autologous Hematopoietic Cell Transplantation (AHCT) in Patients with High-Risk Hodgkin Lymphoma (HL)

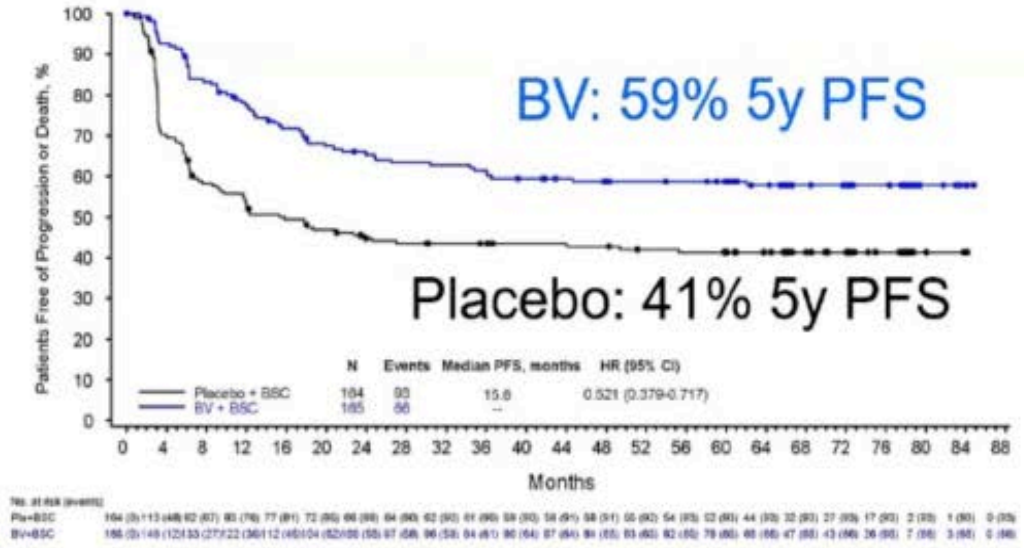
Alex F. Herrera[1], Lu Chen[2], Yago Nieto[3], Leona Holmberg[4], Patrick Johnston[5], Matthew Mei[1], Leslie Popplewell[1], Saro Armenian[6], Thai Cao[1], Leonardo Farol[1], Firoozeh Sahebi[1], Ricardo Spielberger[1], Robert Chen[1], Auayporn Nademanee[1], Alan Skarbnik[7], Neena Kennedy[1], Lacolle Peters[1], Steven Rosen[1], Larry Kwak[1], Stephen Forman[1], Tatyana Feldman[8]

1 Department of Hematology and Hematopoietic Cell Transplantation, City of Hope, Duarte, CA; 2 Department of Computational and Quantitative Medicine, City of Hope, Duarte, CA; 3 Department of Stem Cell Transplantation and Cellular Therapy, UT M.D. Anderson Cancer Ctr., Houston, TX, 4 Clinical Research Division, Fred Hutchinson Cancer Research Center, Seattle, WA, 5 5Division of Hematology, Department of Internal Medicine, Mayo Clinic, Rochester, MN, 6 Department of Population Sciences, City of Hope, Duarte, CA, 7 Novant Health, Charlotte, NC, 8 Hackensack University Medical Center, Hackensack, NJ

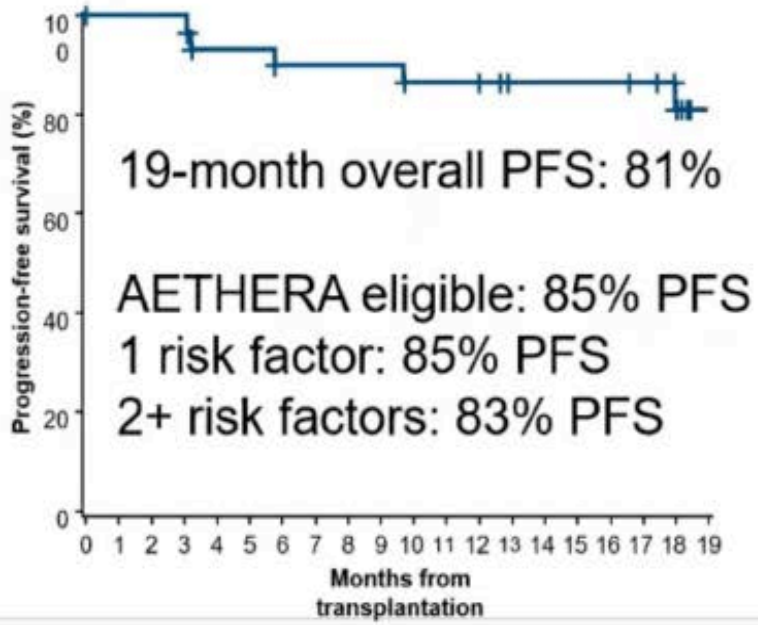
RTP RESEARCH TO PRACTICE

Introduction – Consolidation after AHCT in HL

AETHERA, BV consolidation after AHCT
n = 329 high-risk R/R HL, 16 cycles
85% with 2+ risk factors



Pembrolizumab consolidation after AHCT
n = 30 R/R HL, 8 cycles
40% with 2+ risk factors



American Society of Hematology

Moskowitz CH, et al *Blood* 2019, Armand P, et al. *Blood* 2019.

Herrera AF et al. ASH 2020;Abstract 472.

RTP RESEARCH TO PRACTICE

Conclusions

- BV+Nivo consolidation for 8 cycles after AHCT in patients with high-risk R/R HL is a promising approach
  - 92% 19-month PFS in all pts
  - 19-month PFS was 96% in pts with 2 risk factors, 83% with 3+ risk factors
  - 51% with prior BV exposure, 42% with prior anti-PD1 exposure
- BV+Nivo consolidation was tolerable, but associated with more irAE than in pre-AHCT setting (27% requiring steroids)
  - Neuropathy (51%) and neutropenia (42%) were common, no febrile neutropenia
- Based on these results, BV+Nivo consolidation after AHCT should be evaluated further

Herrera AF et al. ASH 2020;Abstract 472.

Weill Cornell Medicine

Multicenter Phase II Study of Oral Azacitidine (CC486) plus CHOP as Initial Treatment for Peripheral T-cell Lymphoma

Jia Ruan, Alison Moskowitz, Neha Mehta-Shah, Lubomir Sokol, Zhengming Chen, Riyaad Rahim, Wei Song, Koen van Besien, Steven Horwitz, Sarah Rutherford, Morton Coleman, Ari Melnick, Giorgio Inghirami, Leandro Cerchietti, John P Leonard, Peter Martin

Weill Cornell Medicine; Memorial Sloan Kettering Cancer Center
Washington University in St. Louis; Moffitt Cancer Center

ASH2020 Abstract #40

Conclusions

- This study provides the first demonstration that addition of hypomethylating oral azacitidine to CHOP as initial therapy for PTCL is safe, well tolerated, and induces high response rates, including CR of 88% in PTCL-TFH subtype.
- Exploratory mutational analysis by WES-NGS suggests that *TET2* mutations were associated with CR and favorable PFS, while *DNMT3A* mutations were associated with adverse OS.

Weill Cornell Medicine

Ruan J et al. ASH 2020;Abstract 40.

RTP RESEARCH TO PRACTICE

A 27-year-old man is diagnosed with Stage IVB classical HL with nodal, spleen and bone involvement. Albumin is 3.1 g/dL, Hgb is 8.6 g/dL and white blood cell count is 17,500. IPS (International Prognostic Score): 5. What initial treatment would you recommend?

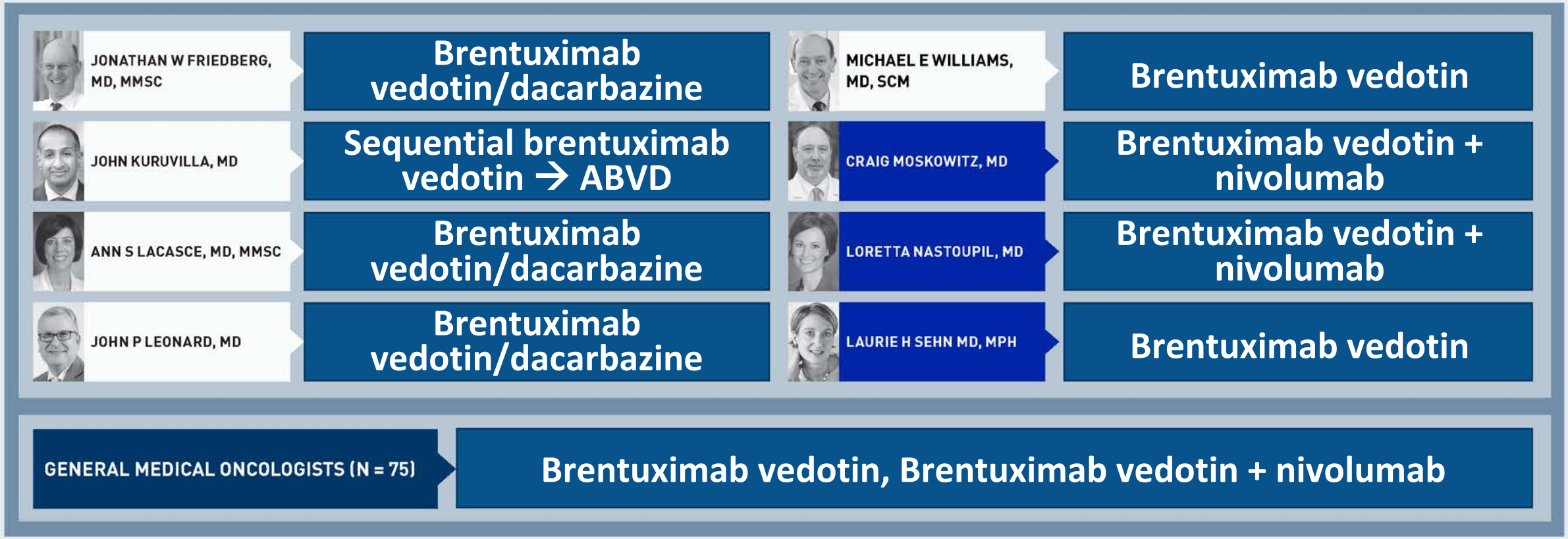
1. Doxorubicin/bleomycin/vinblastine/dacarbazine (ABVD)
2. PET-adapted ABVD
3. Brentuximab vedotin + AVD
4. AVD
5. Other chemotherapy
6. Other

A 27-year-old man is diagnosed with Stage IVB classical Hodgkin lymphoma (HL) with nodal, spleen and bone involvement. Albumin is 3.1 g/dL, Hgb is 8.6 g/dL and white blood cell count is 17,500. IPS = 5. What initial treatment would you recommend?

 JONATHAN W FRIEDBERG, MD, MMSC	Brentuximab vedotin + AVD	 MICHAEL E WILLIAMS, MD, SCM	Brentuximab vedotin + AVD
 JOHN KURUVILLA, MD	PET-adapted BEACOPP	 CRAIG MOSKOWITZ, MD	Brentuximab vedotin + AVD
 ANN S LACASCE, MD, MMSC	Brentuximab vedotin + AVD	 LORETTA NASTOUPIL, MD	Brentuximab vedotin + AVD
 JOHN P LEONARD, MD	Brentuximab vedotin + AVD	 LAURIE H SEHN MD, MPH	Brentuximab vedotin + AVD
GENERAL MEDICAL ONCOLOGISTS (N = 75)	Brentuximab vedotin + AVD		

AVD = doxorubicin/vinblastine/dacarbazine; BEACOPP = bleomycin/etoposide/doxorubicin/cyclophosphamide/vincristine/procarbazine/prednisone

An 85-year-old frail patient with advanced-stage symptomatic HL is not a candidate for aggressive chemotherapy but is seeking active treatment. Regulatory and reimbursement issues aside, what would you recommend?



ABVD = doxorubicin/bleomycin/vinblastine/dacarbazine

Regulatory and reimbursement issues aside, what would generally be your preferred bridge to transplant for a patient with HL who is experiencing relapse after up-front ABVD?

1. ICE (ifosfamide/carboplatin/etoposide)
2. Brentuximab vedotin
3. Brentuximab vedotin + nivolumab
4. Brentuximab vedotin + pembrolizumab
5. Other

Regulatory and reimbursement issues aside, what would generally be your preferred bridge to transplant for a patient with HL who is experiencing relapse after up-front ABVD?

 JONATHAN W FRIEDBERG, MD, MMSC	Brentuximab vedotin + nivolumab
 JOHN KURUVILLA, MD	Gemcitabine/ dexamethasone/cisplatin
 ANN S LACASCE, MD, MMSC	ICE if later relapse; brentuximab vedotin + nivolumab for early relapse
 JOHN P LEONARD, MD	Brentuximab vedotin + bendamustine
 MICHAEL E WILLIAMS, MD, SCM	ICE
 CRAIG MOSKOWITZ, MD	Brentuximab vedotin + nivolumab
 LORETTA NASTOUPIL, MD	Brentuximab vedotin + bendamustine
 LAURIE H SEHN MD, MPH	Brentuximab vedotin
GENERAL MEDICAL ONCOLOGISTS (N = 75)	Brentuximab vedotin, Brentuximab vedotin + nivolumab

Regulatory and reimbursement issues aside, what is generally your preferred second-line therapy for a patient with HL who is experiencing relapse after up-front ABVD and who is not considered a candidate for transplant?

1. Other chemotherapy
2. Brentuximab vedotin
3. Brentuximab vedotin + nivolumab
4. Brentuximab vedotin + pembrolizumab
5. Nivolumab
6. Pembrolizumab
7. Other

Regulatory and reimbursement issues aside, in general, what is your preferred second-line therapy for a patient with HL who is experiencing relapse after up-front ABVD and who is not considered a candidate for transplant?

 JONATHAN W FRIEDBERG, MD, MMSC	Brentuximab vedotin
 JOHN KURUVILLA, MD	Pembrolizumab
 ANN S LACASCE, MD, MMSC	Brentuximab vedotin + nivolumab
 JOHN P LEONARD, MD	Pembrolizumab
 MICHAEL E WILLIAMS, MD, SCM	Brentuximab vedotin + nivolumab
 CRAIG MOSKOWITZ, MD	Brentuximab vedotin + nivolumab
 LORETTA NASTOUPIL, MD	Brentuximab vedotin + nivolumab
 LAURIE H SEHN MD, MPH	Brentuximab vedotin
GENERAL MEDICAL ONCOLOGISTS (N = 75)	Brentuximab vedotin, Brentuximab vedotin + nivolumab

Agenda

Module 1: Evolving treatment paradigm for patients with diffuse large B-cell lymphoma (DLBCL) – Dr LaCasce

Module 2: Optimal management of newly diagnosed and relapsed/refractory follicular lymphoma – Dr Leonard

Module 3: Available and emerging approaches for mantle cell lymphoma – Dr Williams

Module 4: Selection and sequencing of therapies for patients with advanced Hodgkin lymphoma – Dr Kuruvilla

Module 5: Advances in chimeric antigen receptor T-cell therapy for DLBCL and other lymphoma subtypes – Dr Friedberg

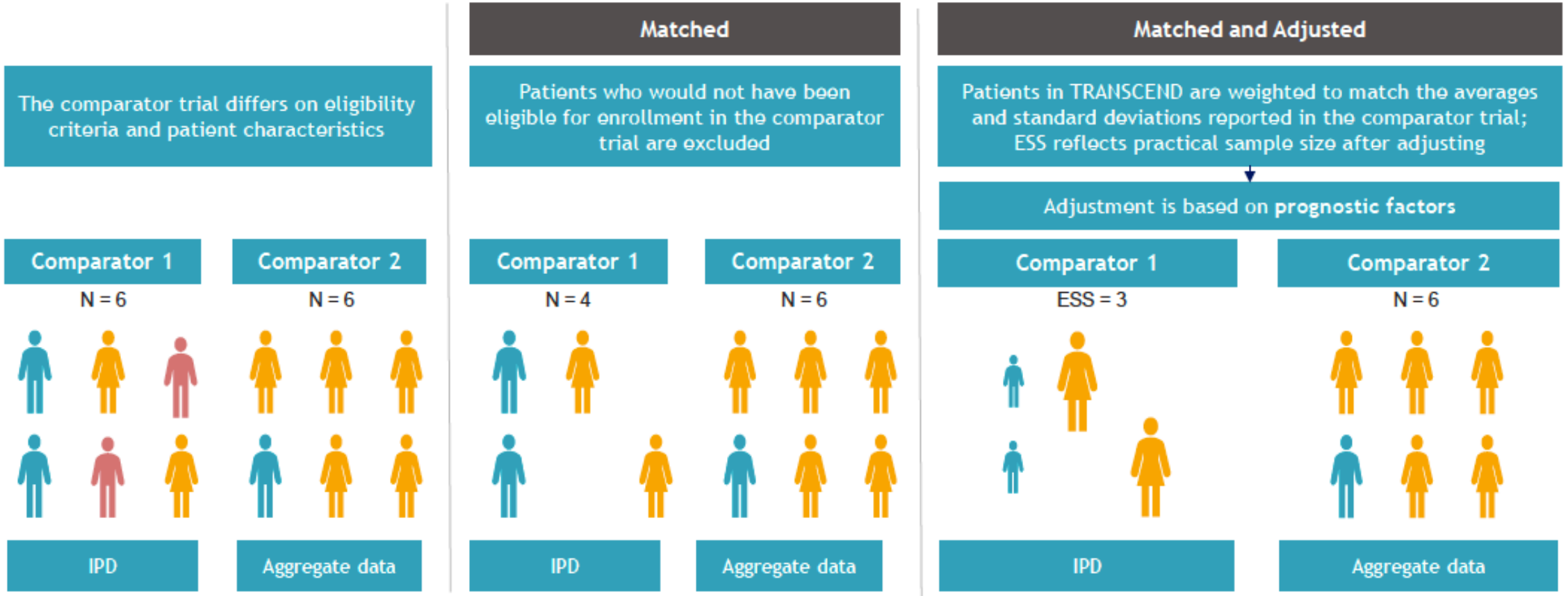
Matching-Adjusted Indirect Comparison (MAIC) of Lisocabtagene Maraleucel (liso-cel) vs Axicabtagene Ciloleucel (axi-cel) and Tisagenlecleucel in Relapsed/Refractory (R/R) Large B-Cell Lymphoma (LBCL)

David G. Maloney,[1] John Kuruvilla,[2] Christopher P. Fox,[3] Guillaume Cartron,[4] Daniel Li,[5] Jens Hasskarl,[6] Ashley Bonner,[7] Yixie Zhang,[7] Fei Fei Liu[8]

[1]Fred Hutchinson Cancer Research Center, Seattle, WA, USA; [2]Princess Margaret Cancer Centre, Toronto, ON, Canada; [3]Nottingham University Hospitals NHS Trust, Nottingham, UK; [4]Montpellier University Hospital Center, Montpellier, France; [5]Bristol Myers Squibb, Seattle, WA, USA; [6]Celgene, a Bristol-Myers Squibb Company, Boudry, Switzerland; [7]EVERSANA, Burlington, ON, Canada; [8]Bristol Myers Squibb, Princeton, NJ, USA

MAICs to Estimate Population-Adjusted Relative Treatment Effects

- Patients from TRANSCEND were removed from the liso-cel patient population if they did not satisfy eligibility criteria specified in the comparator trial for each MAIC. Remaining patients from TRANSCEND were then weighted using method-of-moments propensity score models involving clinically relevant prognostic factors (baseline characteristics) to match the marginal distribution (eg, mean, variance) of clinical factors among patients from ZUMA-1 and JULIET



ESS, effective sample size; IPD, individual patient data.

Maloney DG et al. ASH 2020;Abstract 2116.

Summary

- MAIC-weighted outcomes suggest that liso-cel provides a well-balanced overall efficacy and safety profile for the treatment of R/R LBCL
  - Better efficacy and comparable safety vs tisagenlecleucel
  - Better safety and comparable efficacy vs axi-cel
- Without head-to-head clinical trials, these indirect comparisons aimed to narrow between-study differences and create fair comparisons of the 3 CAR T cell therapies
  - Despite the rigorous process that identified clinically important factors, there is no guarantee that all relevant CAR T cell therapy clinical factors were included
  - Although TRANSCEND had the largest sample size that enabled adjustments, not all factors identified in the process were included due to inconsistent reporting across trials

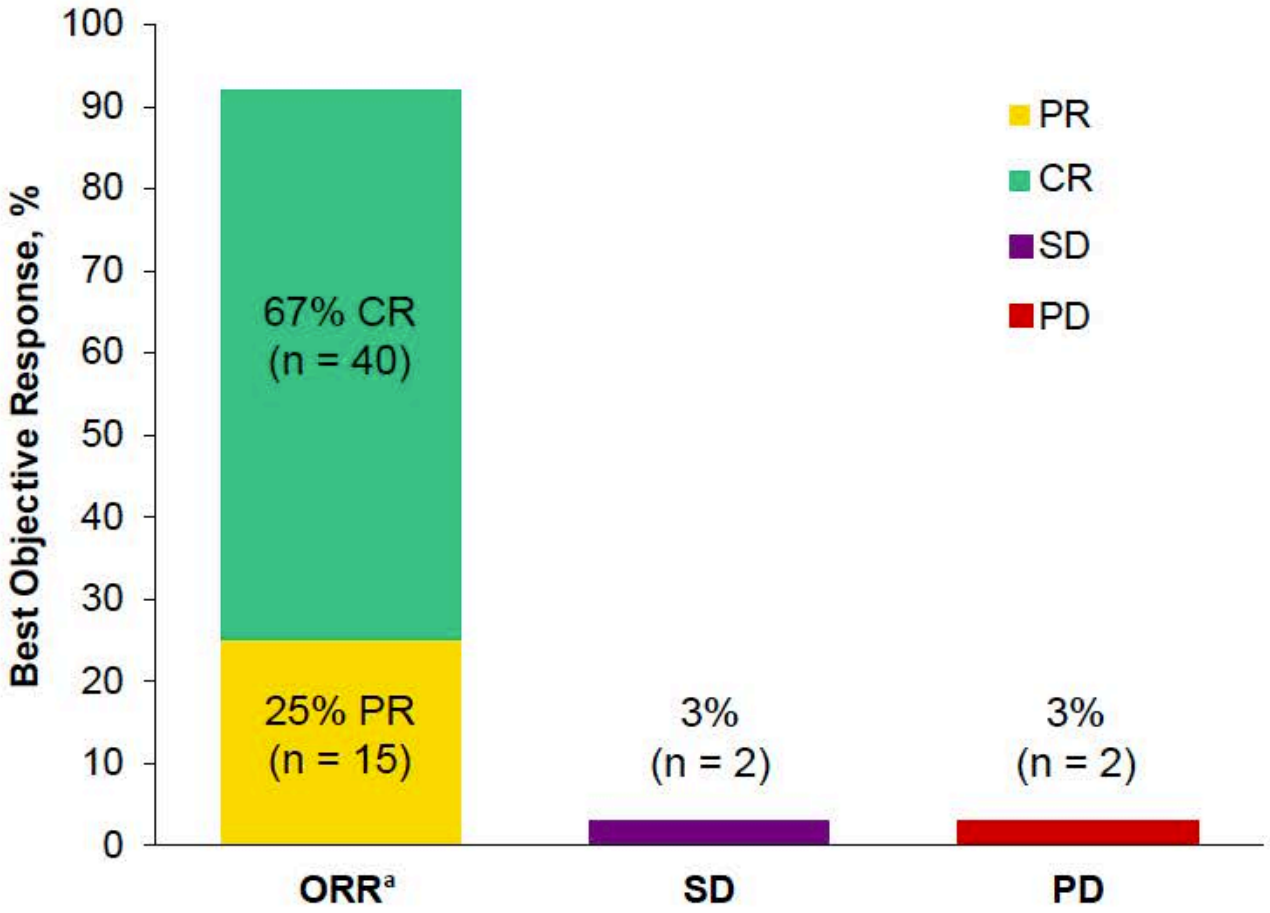
Maloney DG et al. ASH 2020;Abstract 2116.

One-Year Follow-Up of ZUMA-2, the Multicenter, Registrational Study of KTE-X19 in Patients With Relapsed/Refractory Mantle Cell Lymphoma

Michael L. Wang, MD[1]; Javier Munoz, MD[2]; Andre Goy, MD[3]; Frederick L. Locke, MD[4]; Caron A. Jacobson, MD[5]; Brian T. Hill, MD, PhD[6]; John M. Timmerman, MD[7]; Houston Holmes, MD[8]; Samantha Jaglowski, MD[9]; Ian W. Flinn, MD, PhD[10]; Peter A. McSweeney, MD[11]; David B. Miklos, MD, PhD[12]; John M. Pagel, MD, PhD[13]; Marie José Kersten, MD, PhD[14]; Krimo Bouabdallah, MD[15]; Henry C.H. Fung, MD[16]; Max S. Topp, MD[17]; Roch Houot, MD[18]; Amer Beitinjaneh, MD[19]; Weimin Peng, PhD[20]; Lianqing Zheng, PhD[20]; John M. Rossi, MS[20]; Swaminathan Murugappan, MD, PhD[20]; Ioana Kloos, MD[20]; and Patrick M. Reagan, MD[21]

[1]The University of Texas MD Anderson Cancer Center, Houston, TX, USA; [2]Banner MD Anderson Cancer Center, Gilbert, AZ, USA; [3]John Theurer Cancer Center, Hackensack, NJ, USA; [4]Moffitt Cancer Center, Tampa, FL, USA; [5]Dana-Farber Cancer Institute, Boston, MA, USA; [6]Cleveland Clinic Foundation, Cleveland, OH, USA; [7]David Geffen School of Medicine at UCLA, Los Angeles, CA, USA; [8]Texas Oncology, Dallas, TX, USA; [9]The Ohio State University Comprehensive Cancer Center, Columbus, OH, USA; [10]Sarah Cannon Research Institute, Nashville, TN, USA; [11]Colorado Blood Cancer Institute, Denver, CO, USA; [12]Stanford University School of Medicine, Stanford, CA, USA; [13]Swedish Cancer Institute, Seattle, WA, USA; [14]Amsterdam UMC, University of Amsterdam, Amsterdam, The Netherlands, on behalf of HOVON/LLPC; [15]Hopital Haut Leveque, Pessac, France; [16]Fox Chase Cancer Center, Philadelphia, PA, USA; [17]Universitatsklinikum Wurzburg, Wurzburg, Germany; [18]CHU Rennes, Rennes, France; [19]University of Miami, Miami, FL, USA; [20]Kite, a Gilead Company, Santa Monica, CA, USA; and [21]University of Rochester Medical Center, Rochester, NY, USA

ORR by IRRC Assessment Was 92% (95% CI, 82 – 97) and CR Rate Was 67% (95% CI, 53 – 78)



- At a median follow-up of 17.5 months (range, 12.3 – 37.6), 29 of 60 evaluable patients (48%) remain in ongoing responses
  - 28 of 40 patients who achieved CR (70%) remain in response
- The first 28 patients treated had a median follow-up of 32.3 months (range, 30.6 – 37.6)
  - 39% of patients remain in continued remission with no further therapy
- In all enrolled patients (N = 74), ORR was 84% (59% CR rate)

[a] Assessed by an IRRC according to the Lugano Classification.[1] One patient was not evaluable.

1. Cheson BD, et al. *J Clin Oncol*. 2014;32:3059-3068.

CR, complete response; IRRC, Independent Radiology Review Committee; ORR, objective response rate; PD, progressive disease; PR, partial response; SD, stable disease.

Efficacy and Safety of Tisagenlecleucel in Adult Patients With Relapsed/Refractory Follicular Lymphoma: Interim Analysis of the Phase 2 ELARA Trial

Nathan Hale Fowler,[1,2] Michael Dickinson,[3] Martin Dreyling,[4] Joaquin Martinez-Lopez,[5] Arne Kolstad,[6] Jason Butler,[7] Monalisa Ghosh,[8] Leslie Popplewell,[9] Julio C. Chavez,[10] Emmanuel Bachy,[11] Koji Kato,[12] Hideo Harigae,[13] Marie José Kersten,[14] Charalambos Andreadis,[15] Peter A. Riedell,[16] P. Joy Ho,[17] José Antonio Pérez Simón,[18] Sarah Nagle,[19] Loretta Nastoupil,[1] Bastian von Tresckow,[20,21] Andrés José María Ferreri,[22] Takanori Teshima,[23] Piers EM Patten,[24] Joseph McGuirk,[25] Andreas Petzer,[26] Fritz Offner,[27] Andreas Viardot,[28] Pier Luigi Zinzani,[29] Ram Malladi,[30] Lida Bubuteishvili Pacaud,[31] Alessandra Forcina,[32] Aiesha Zia,[32] Stephen J. Schuster,[33,*] Catherine Thieblemont[34,*]
*Dr Schuster and Dr Thieblemont are co-senior authors.

[1]The University of Texas MD Anderson Cancer Center, Houston, TX; [2]BostonGene, Waltham, MA; [3]Peter MacCallum Cancer Centre and Royal Melbourne Hospital, Melbourne, Australia; [4]Medizinische Klinik III, LMU Klinikum, Munich, Germany; [5]Hospital 12 De Octubre, Complutense University, CNIO, Madrid, Spain; [6]Oslo University Hospital, Oslo, Norway; [7]Royal Brisbane Hospital, Herston, Australia; [8]Michigan Medicine University of Michigan, Ann Arbor, MI; [9]City of Hope National Medical Center, Duarte, CA; [10]Moffitt Cancer Center, Tampa, FL; [11]Hospices Civils de Lyon and Université Claude Bernard Lyon 1, Lyon, France; [12]Kyushu University Hospital, Fukuoka, Japan; [13]Tohoku University Hospital, Sendai, Japan; [14]Amsterdam UMC, University of Amsterdam, Netherlands, on behalf of HOVON/LLPC; [15]Helen Diller Family Comprehensive Cancer Center, UCSF, San Francisco, CA; [16]University of Chicago Medical Center, Chicago, IL; [17]Royal Prince Alfred Hospital and University of Sydney, Camperdown, Australia; [18]Department of Hematology, University Hospital Virgen del Rocío, Instituto de Biomedicina de Sevilla (IBIS / CSIC / CIBERONC), Universidad de Sevilla, Sevilla, Spain; [19]Oregon Health and Science University, Portland, OR; [20]Department I of Internal Medicine, Medical Faculty and University Hospital Cologne, University of Cologne, Cologne, Germany; [21]Clinic for Hematology and Stem Cell Transplantation, West German Cancer Center, University Hospital Essen, University of Duisburg-Essen, Essen, Germany; [22]IRCCS Ospedale San Raffaele, Milan, Italy; [23]Hokkaido University Hospital, Sapporo, Japan; [24]King's College Hospital and King's College London, London, United Kingdom; [25]University of Kansas Hospital and Medical Center, Westwood, KS; [26]Internal Medicine I, Ordensklinikum Linz GmbH Elisabethinen, Linz, Austria; [27]UZ Gent, Gent, Belgium; [28]Department of Internal Medicine III, University Hospital of Ulm, Ulm, Germany; [29]Institute of Hematology "Seràgnoli," University of Bologna, Bologna, Italy; [30]Cambridge University Hospitals NHS Foundation Trust, Cambridge, United Kingdom; [31]Novartis Pharmaceuticals Corporation, East Hanover, NJ; [32]Novartis Pharma AG, Basel, Switzerland; [33]University of Pennsylvania, Philadelphia, PA; [34]Hôpital Saint-Louis, Paris, France

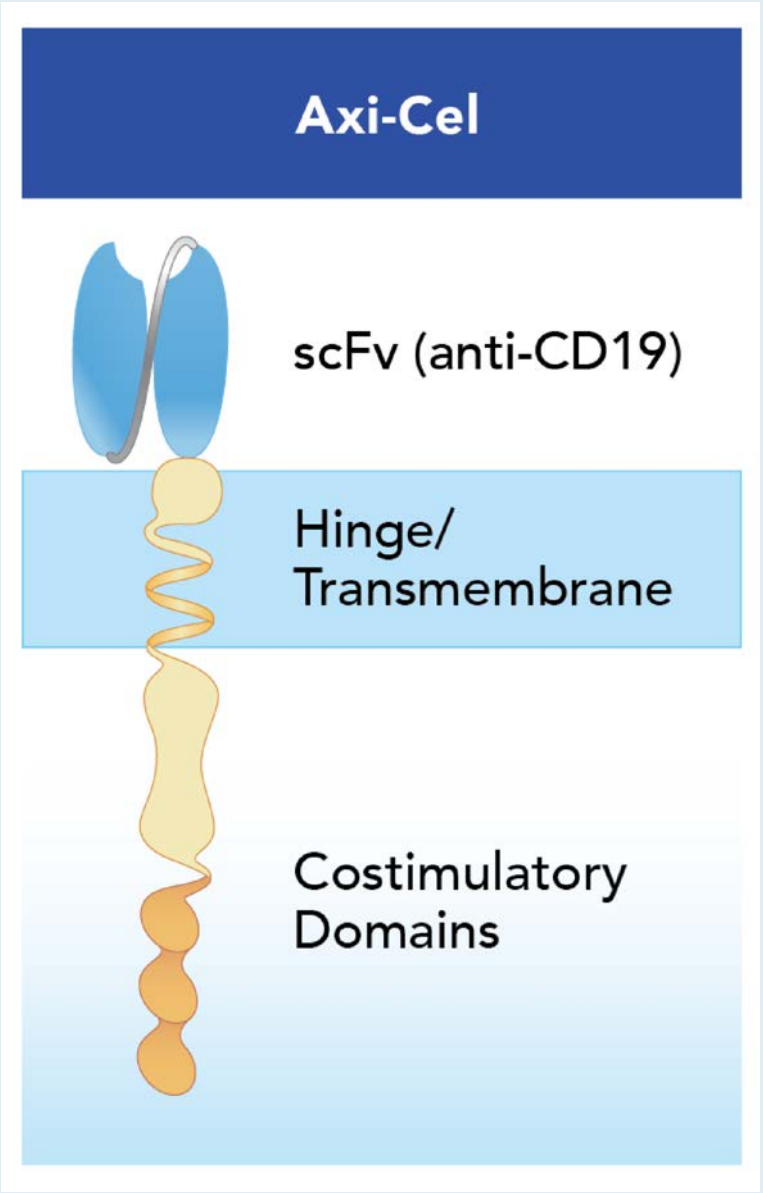
Poster presented at the 2020 ASH Annual Meeting & Exposition, held virtually on 5–8 December 2020

Primary Analysis of ZUMA-5: A Phase 2 Study of Axicabtagene Ciloleucel (Axi-Cel) in Patients With Relapsed/Refractory Indolent Non-Hodgkin Lymphoma

Caron Jacobson, MD[1]; Julio C. Chavez, MD[2]; Alison Sehgal, MD[3]; Basem William, MD[4]; Javier Munoz, MD, MS, FACP[5]; Gilles Salles, MD, PhD[6]; Pashna Munshi, MD[7]; Carla Casulo, MD[8]; David Maloney, MD, PhD[9]; Sven de Vos, MD, PhD[10]; Ran Reshef, MD[11]; Lori Leslie, MD[12]; Ibrahim Yakoub-Agha, MD, PhD[13]; Olalekan Oluwole, MD, MPH, MBBS[14]; Henry Chi Hang Fung, MD[15]; Joseph Rosenblatt, MD[16]; John Rossi, MS[17]; Lovely Goyal, PhD[17]; Vicki Plaks, LLB, PhD[17]; Yin Yang, MS[17]; Jennifer Lee, BS[17]; Wayne Godfrey, MS, MD[17]; Remus Vezan, MD, PhD[17]; Mauro Avanzi, MD, PhD[17]; and Sattva S. Neelapu, MD[18]

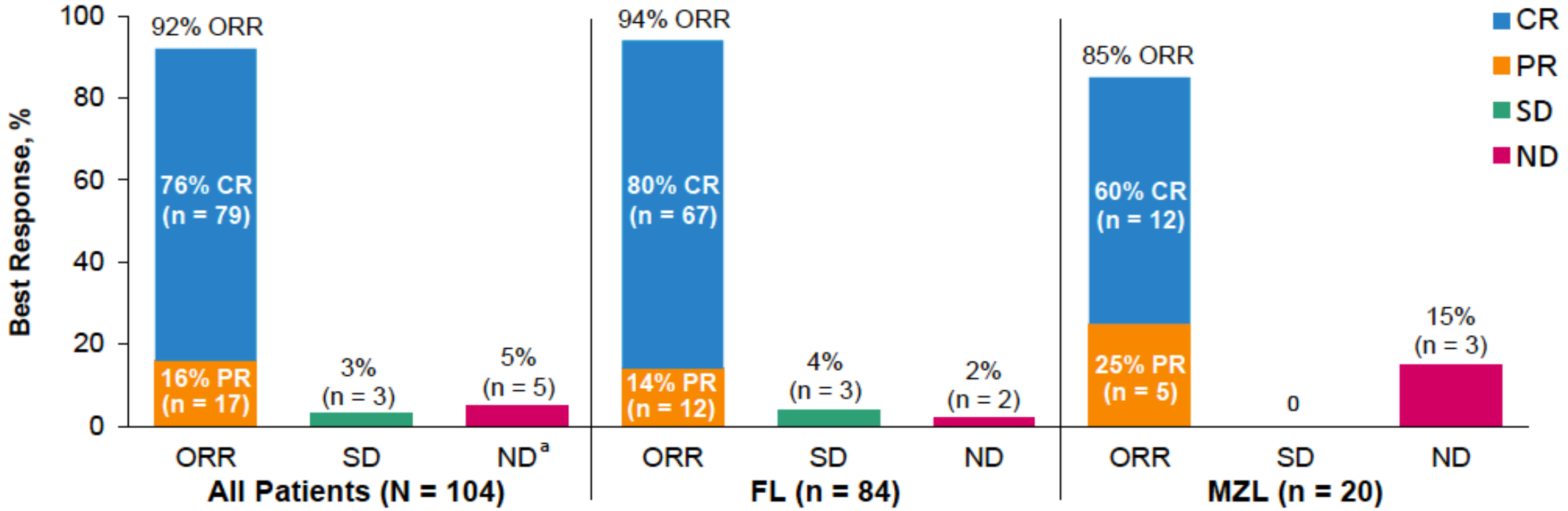
[1]Dana-Farber Cancer Institute, Boston, MA, USA; [2]University of South Florida H. Lee Moffitt Cancer Center and Research Institute, Tampa, FL, USA; [3]UPMC Hillman Cancer Center, Pittsburgh, PA, USA; [4]The Ohio State University Comprehensive Cancer Center, Columbus, OH, USA; [5]Banner MD Anderson Cancer Center, Gilbert, AZ, USA; [6]Centre Hospitalier Lyon Sud, Pierre-Bénite, France; [7]Georgetown Lombardi Comprehensive Cancer Center, Washington, DC, USA; [8]University of Rochester Medical Center - James P. Wilmot Cancer Center, Rochester, NY, USA; [9]Fred Hutchinson Cancer Research Center, Seattle, WA, USA; [10]Ronald Reagan University of California Los Angeles Medical Center, Santa Monica, CA, USA; [11]Columbia University Herbert Irving Comprehensive Cancer Center, New York, NY, USA; [12]John Theurer Cancer Center, Hackensack, NJ, USA; [13]CHU de Lille, Univ Lille, INSERM U1286, Infinite, 59000 Lille, France; [14]Vanderbilt University Medical Center, Nashville, TN, USA; [15]Fox Chase Cancer Center, Philadelphia, PA, USA; [16]University of Miami Sylvester Comprehensive Cancer Center, Miami, FL, USA; [17]Kite, a Gilead Company, Santa Monica, CA, USA; and [18]The University of Texas MD Anderson Cancer Center, Houston, TX, USA

Background



Jacobson C et al. ASH 2020;Abstract 700.

ORR by IRRC Assessment Was 92% (95% CI, 85 – 97); CR Rate Was 76% (95% CI, 67 – 84)

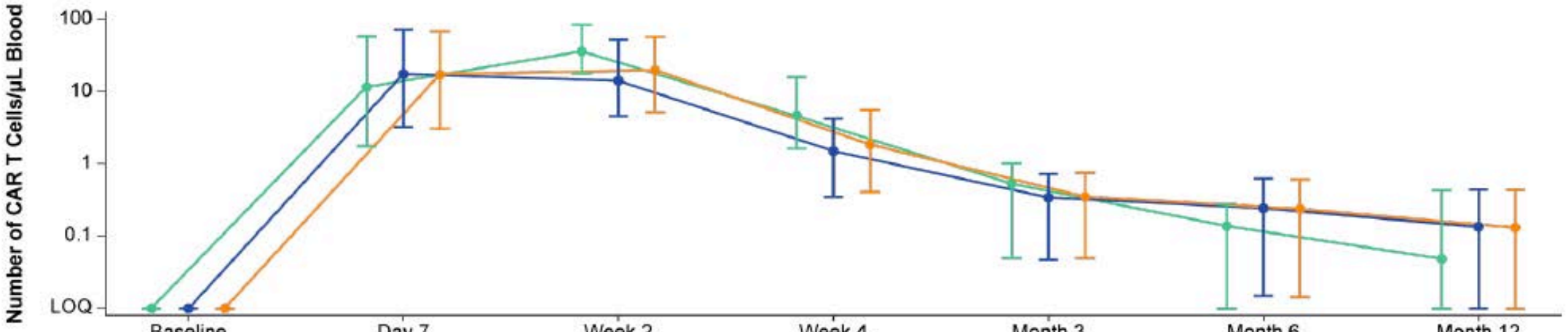


- The median time to first response was 1 month (range, 0.8 – 3.1)
- Among the 25 patients with FL who initially had a PR, 13 (52%) subsequently converted to a CR after a median of 2.2 months (range, 1.9 – 11.2)

The investigator-assessed ORR (N = 104) was 95%, with a CR rate of 77%. Concordance between investigator-assessed and IRRC-assessed ORR was 91%. [a] For the 5 patients reported as ND, 4 (1 FL; 3 MZL) had no disease at baseline and postbaseline per IRRC but were considered with disease by the investigator; 1 patient with FL died before the first disease assessment.
CR, complete response; FL, follicular lymphoma; IRRC, Independent Radiology Review Committee; MZL, marginal zone lymphoma; ND, undefined/not done; ORR, overall response rate; PR, partial response; SD, stable disease.

Jacobson C et al. ASH 2020;Abstract 700.

CAR T Cell Expansion Over Time



Patients	Baseline	Day 7	Week 2	Week 4	Month 3	Month 6	Month 12
FL	124	124	112	117	114	102	61
MZL	22	22	20	19	15	13	6
All patients	146	146	132	136	129	115	67

- The median time to peak of anti-CD19 CAR T cell levels after axi-cel infusion was 9 days (range, 8 – 371)[a]
  - CAR T cell expansion by peak and AUC trended higher in patients with MZL
  - Most patients with evaluable samples (52/67 [78%]) had low levels of detectable CAR gene-marked cells at 12 months

Graph shows medians and interquartile range.
[a] One patient with FL had a second peak of CAR T cells on Day 371 in the context of florid relapse.
AUC, area under the curve; axi-cel, axicabtagene ciloleucel; CAR, chimeric antigen receptor; FL, follicular lymphoma; LOQ, limit of quantification; MZL, marginal zone lymphoma.

Jacobson C et al. ASH 2020;Abstract 700.

Anti-CD30 CAR-T cell therapy in relapsed/refractory Hodgkin lymphoma

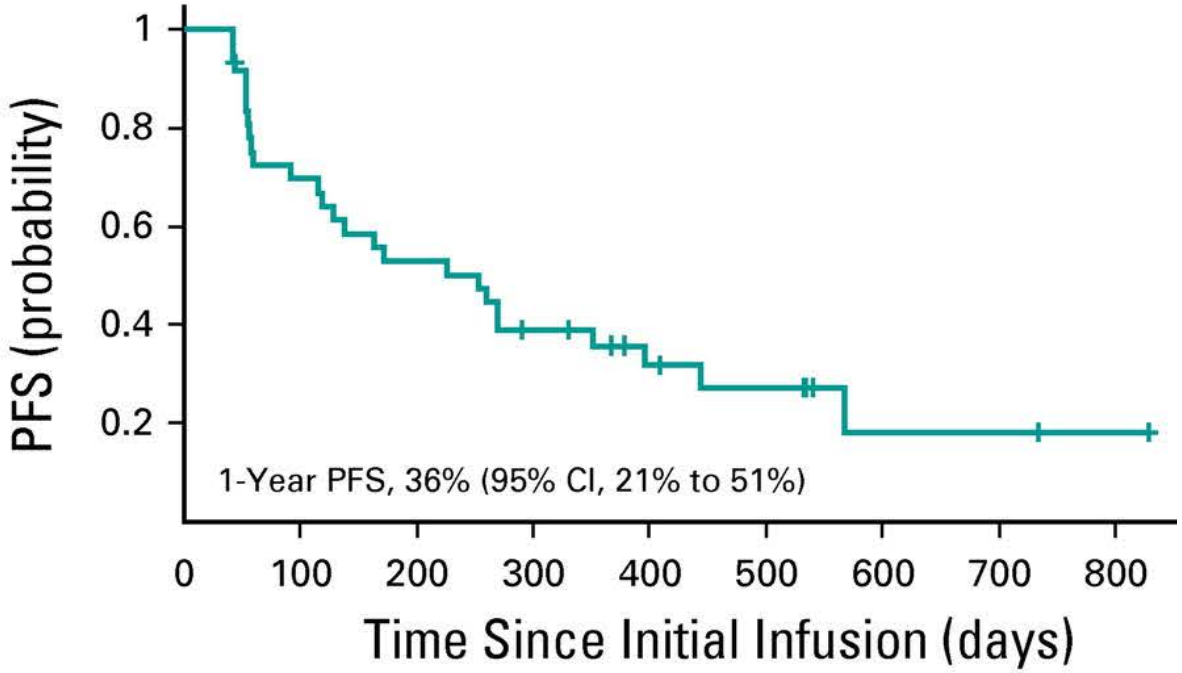
41 patients

Median 7 prior lines of therapy: Checkpoint inhibitors, Brentuximab ASCT/alloSCT.

Low grade CRS; no neurologic toxicity; common skin rash

ORR 72%; CR 59%

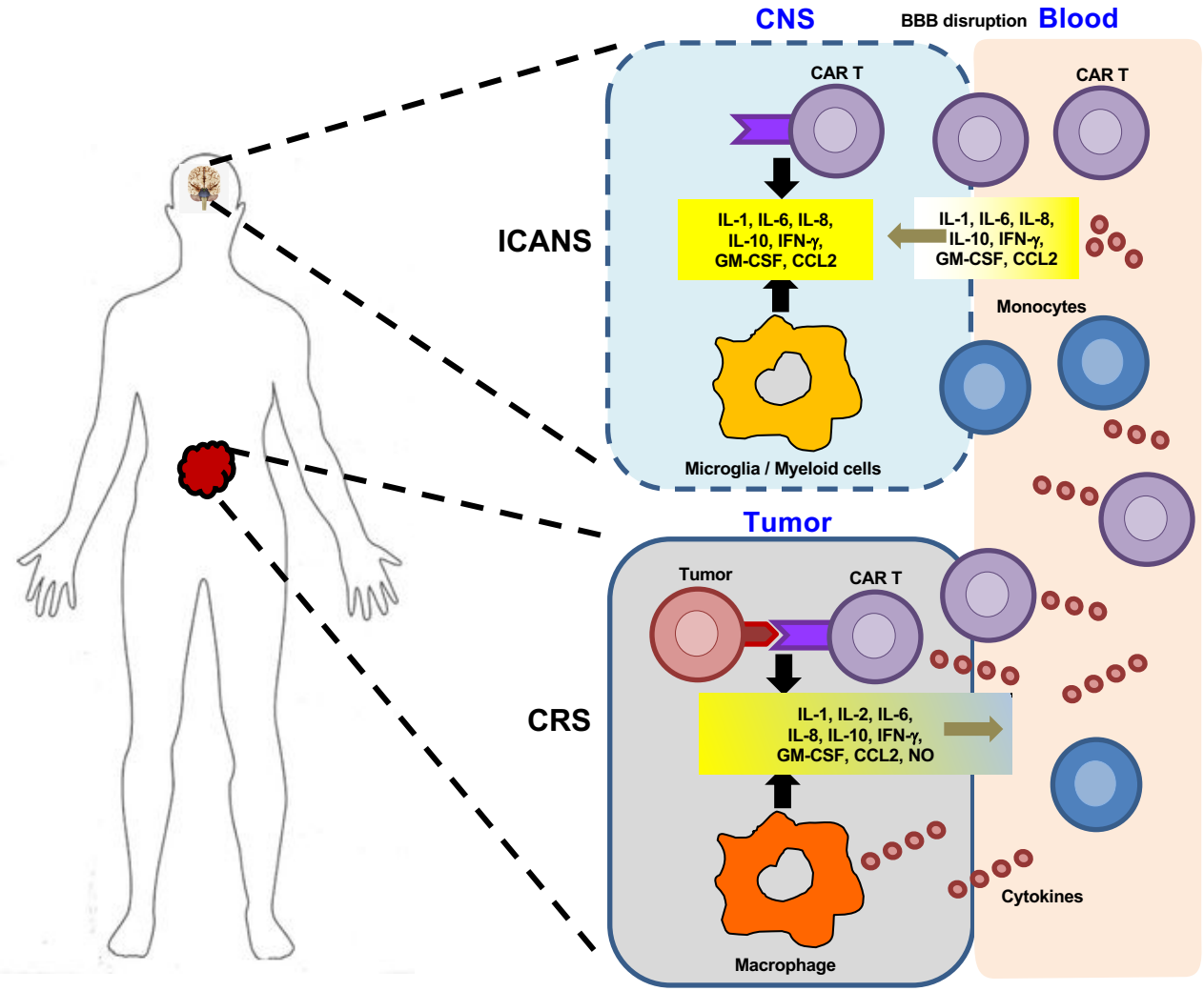
One year PFS: 36%



Courtesy of Jonathan W Friedberg, MD, MMSc

Ramos et al, *JCO* online 2020

Pathophysiology of CAR T-cell-associated neurotoxicity and cytokine release syndrome



Courtesy of Jonathan W Friedberg, MD, MMSc

Reagan and Neelapu, *JCO* in press 2020

Patient identification and appropriate referral for CAR-T cell therapy

- EARLY referral is most important
  - Numerous open trials in novel settings
- Considerations:
  - Avoid lymphotoxic therapy (purine analogs, bendamustine)
  - Avoid immunosuppressive therapy, including steroids
  - (?) avoid tafasitamab and other CD19-targeting agents
- For DLBCL:
  - Refer before starting salvage therapy
  - New products may allow treatment of older individuals
  - “Real world” experiences variable

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Courtesy of Jonathan W Friedberg, MD, MMSc

Jain et al, *BBMT* 25:2305-21 2019

A patient with DLBCL should be in adequate physical condition to undergo autologous stem cell transplant in order to be a suitable candidate for CAR T-cell therapy.

1. Agree
2. Disagree
3. I don't know

A patient with diffuse large B-cell lymphoma (DLBCL) should be in adequate physicial condition to undergo autologous stem cell transplant in order to be a suitable candidate for CAR T-cell therapy.

 JONATHAN W FRIEDBERG, MD, MMSC	Agree	 MICHAEL E WILLIAMS, MD, SCM	Agree
 JOHN KURUVILLA, MD	Disagree	 CRAIG MOSKOWITZ, MD	Agree
 ANN S LACASCE, MD, MMSC	Disagree	 LORETTA NASTOUPIL, MD	Disagree
 JOHN P LEONARD, MD	Agree	 LAURIE H SEHN MD, MPH	Disagree

GENERAL MEDICAL ONCOLOGISTS (N = 75)	Agree

Cases from the Community: Investigators Discuss Emerging Research and Actual Patients with Gastroesophageal Cancers (Part 2 of a 3-Part Series)

Thursday, February 4, 2021
5:00 PM – 6:30 PM ET

Faculty

Daniel Catenacci, MD
Yelena Y Janjigian, MD
Rutika Mehta, MD, MPH
Zev Wainberg, MD, MSc

Moderator

Neil Love, MD

RTP
RESEARCH TO PRACTICE

Current Concepts and Recent Advances in Oncology: A Daylong Clinical Summit Hosted in Partnership with North Carolina Oncology Association (NCOA) and South Carolina Oncology Society (SCOS)

Saturday, February 13, 2021
8:30 AM – 4:30 PM ET

Faculty

Courtney D DiNardo, MD, MSCE
Robert Dreicer, MD, MS
Justin F Gainor, MD
Sara Hurvitz, MD
Ian E Krop, MD, PhD
John M Pagel, MD, PhD
Alexander Perl, MD
Daniel P Petrylak, MD
Philip A Philip, MD, PhD, FRCP
Paul G Richardson, MD
Mitchell R Smith, MD, PhD
Eric Van Cutsem, MD, PhD
Peter Voorhees, MD
Heather Wakelee, MD

Moderator

Neil Love, MD

RTP RESEARCH TO PRACTICE

Thank you for joining us!

CME credit information will be emailed to each participant within 3 business days.