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

> Thursday, January 14, 2021 5:00 PM – 6:00 PM ET

Faculty Christopher R Flowers, MD, MS Sonali M Smith, MD



YiR Lymphomas Faculty



Christopher R Flowers, MD, MS

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Sonali M Smith, MD

Elwood V Jensen Professor of Medicine Interim Chief, Section of Hematology/Oncology Co-Leader, Cancer Service Line Director, Lymphoma Program The University of Chicago Chicago, Illinois



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Dr Love — Disclosures

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Contracted Research	AbbVie Inc, Acerta Pharma — A member of the AstraZeneca Group, Burroughs Wellcome Fund, Cancer Prevention and Research Institute of Texas, Celgene Corporation, Eastern Cooperative Oncology Group, Genentech, a member of the Roche Group, Gilead Sciences Inc, Janssen Biotech Inc, National Cancer Institute, Pharmacyclics LLC, an AbbVie Company, Takeda Oncology, TG Therapeutics Inc, V Foundation for Cancer Research

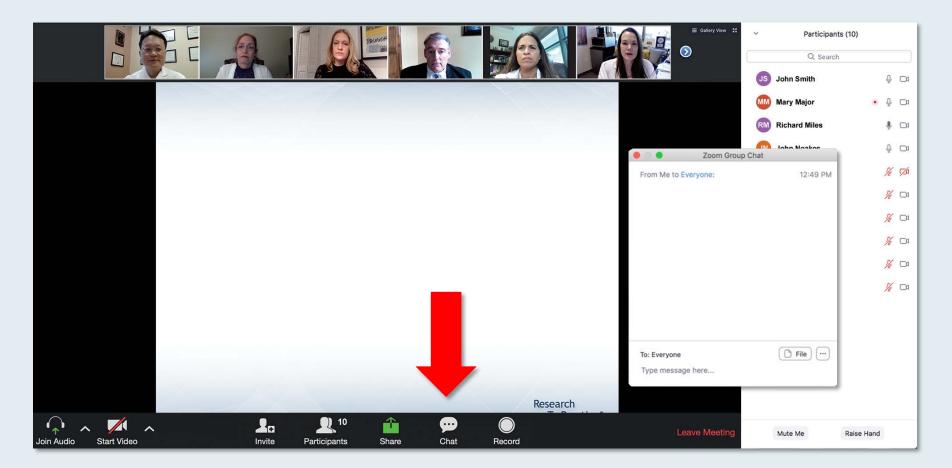


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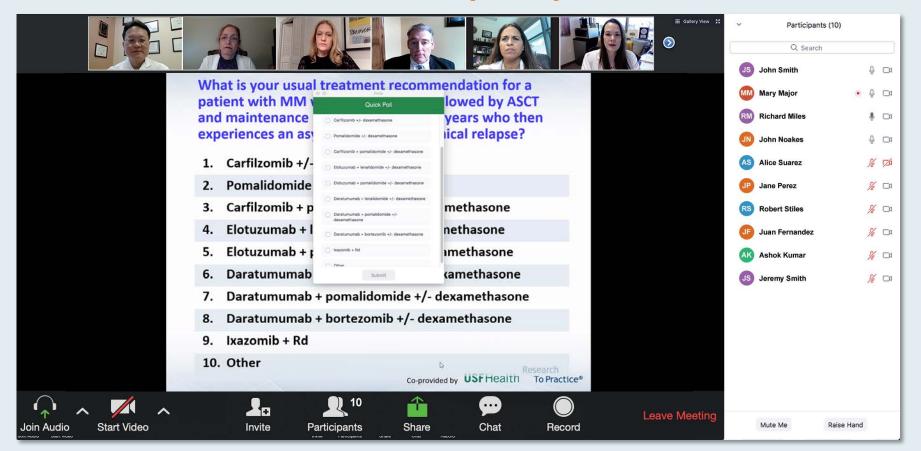
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ONCOLOGY TODAY WITH DR NEIL LOVE

FRONT-LINE TREATMENT OF CHRONIC LYMPHOCYTIC LEUKEMIA

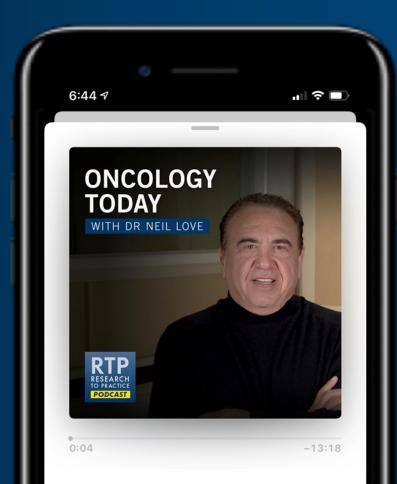


DR JOHN PAGEL SWEDISH CANCER INSTITUTE

SEATTLE, WASHINGTON







Dr John Pagel Front-Line Treatment of Oncology Today with Dr Neil Love —

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

Tuesday, January 19, 2021 5:00 PM – 6:00 PM ET

Faculty Matthew Gubens, MD, MS Suresh S Ramalingam, MD



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

Part 1 — Acute Myeloid Leukemia

Wednesday, January 20, 2021 5:00 PM – 6:00 PM ET

Faculty Daniel A Pollyea, MD, MS Eytan M Stein, MD Andrew H Wei, MBBS, PhD



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> Faculty Matthew S Davids, MD, MMSc Jennifer Woyach, MD



Meet The Professor Management of Ovarian Cancer

Friday, January 22, 2021 1:15 PM – 2:15 PM ET

Faculty Professor Jonathan A Ledermann, MD



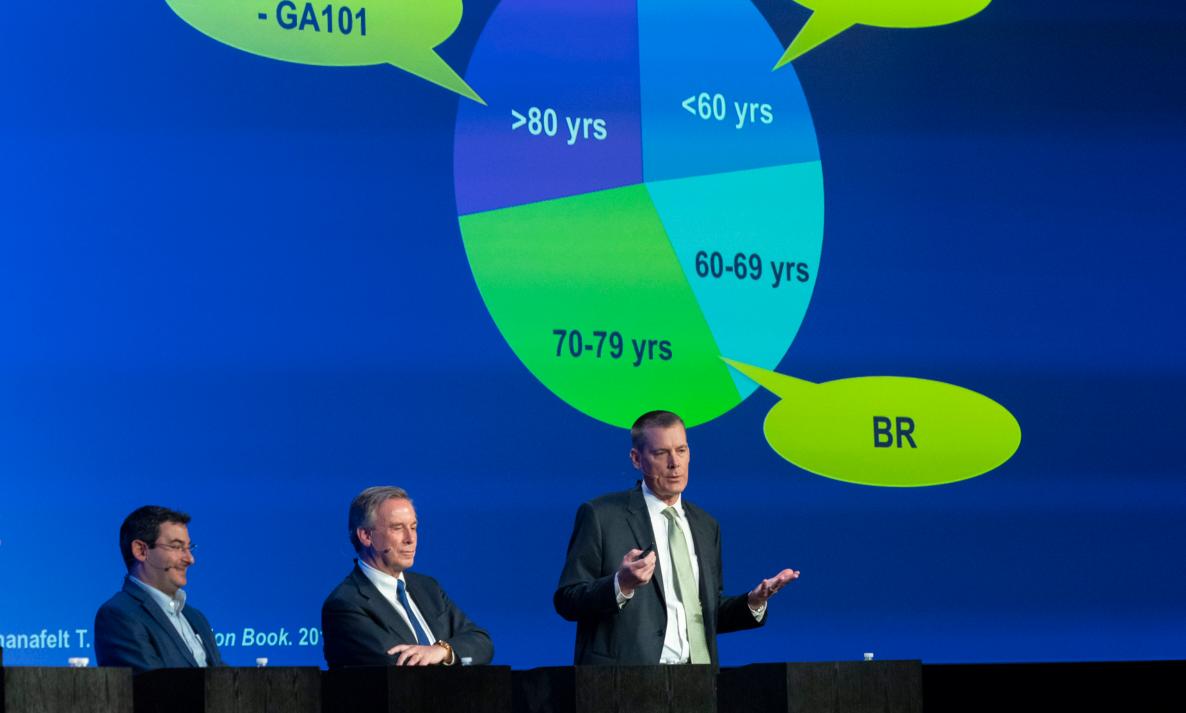
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CME and MOC credit information will be emailed to each participant within 5 business days.

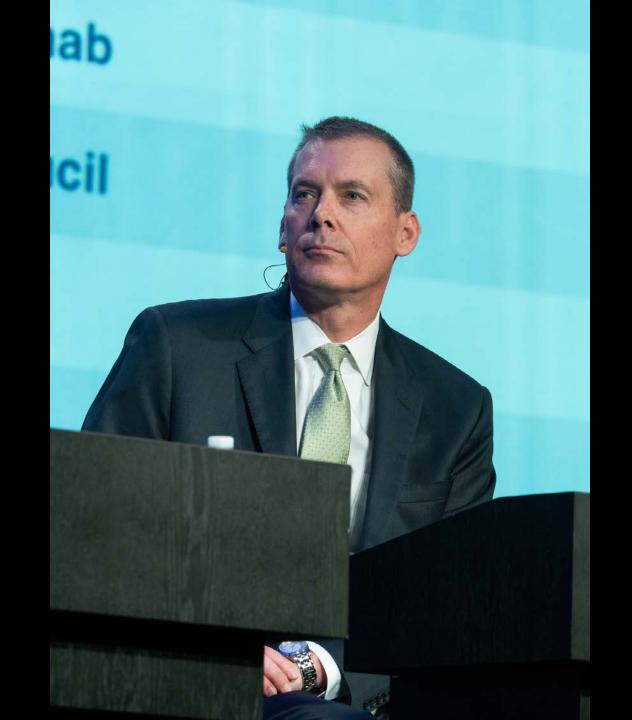












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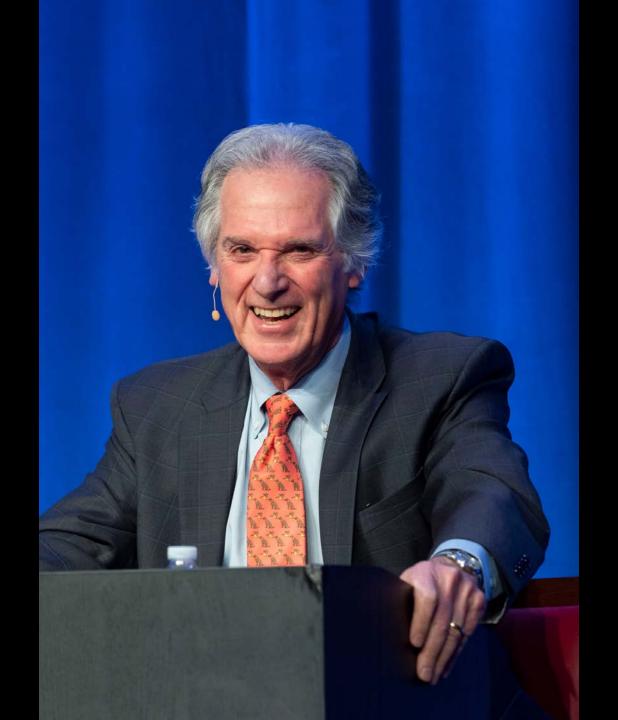
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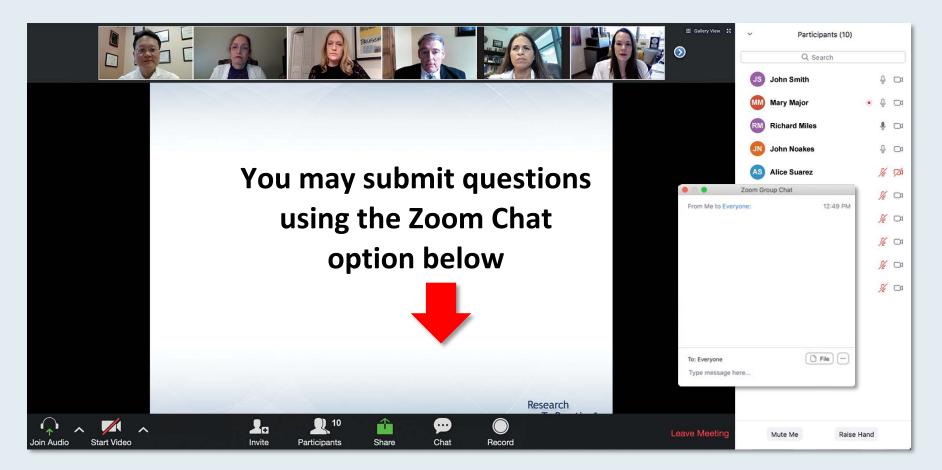


Sonali M Smith, MD

Elwood V Jensen Professor of Medicine Interim Chief, Section of Hematology/Oncology Co-Leader, Cancer Service Line Director, Lymphoma Program The University of Chicago Chicago, Illinois



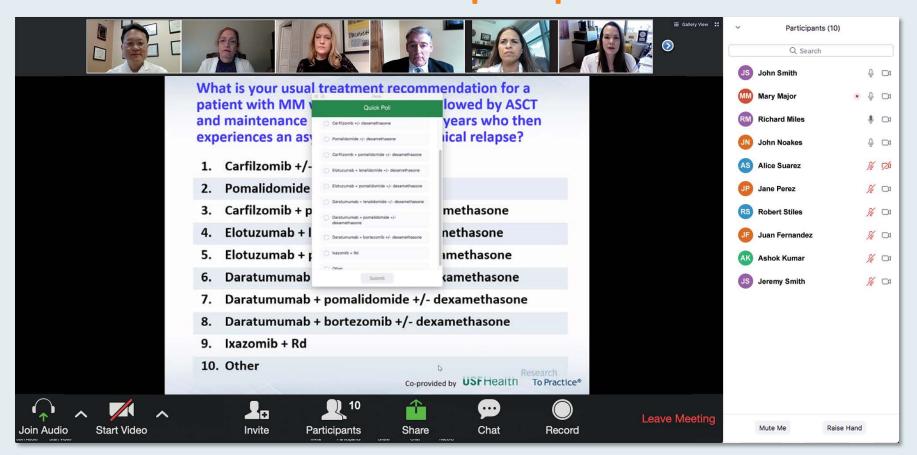
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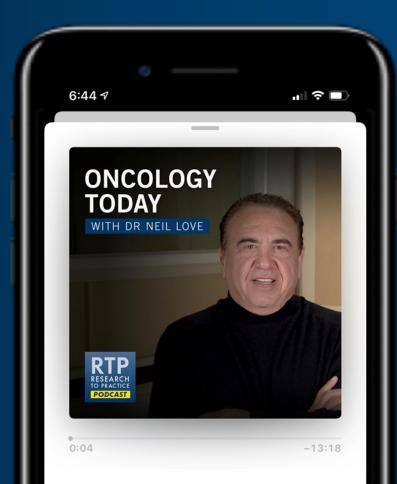


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Agenda

Module 1: Follicular lymphoma

Module 2: Mantle cell lymphoma

Module 3: Diffuse large B-cell lymphoma

Module 4: Hodgkin lymphoma

Module 5: CAR T-cell therapy in DLBCL and other lymphoma subtypes



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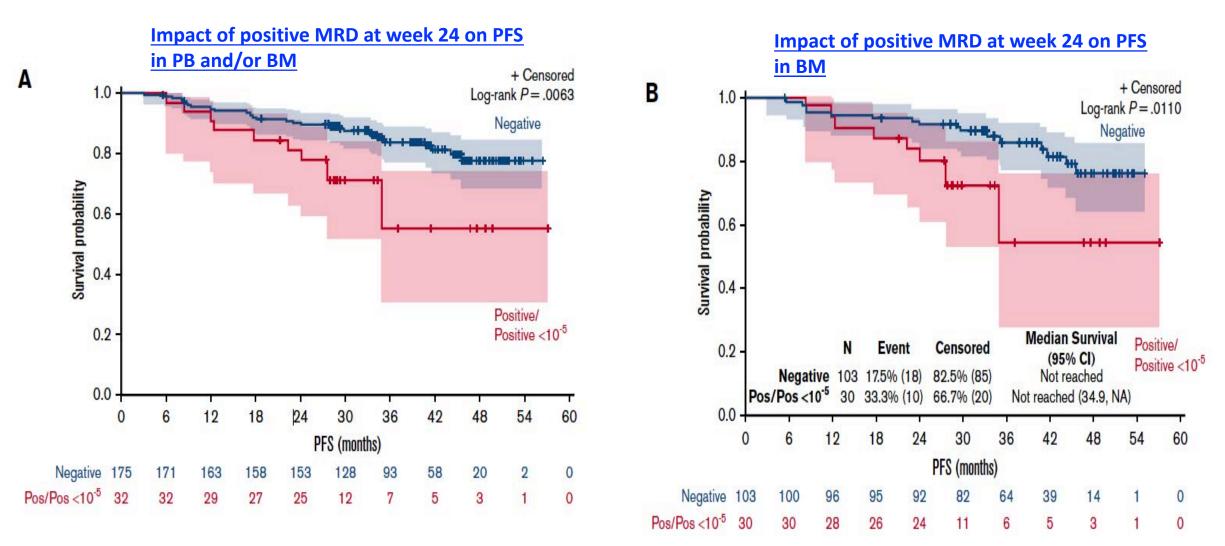
Module 1: Follicular lymphoma

Key Relevant Data Sets

- RELEVANCE: R² for untreated follicular lymphoma
- Tazemetostat +/- lenalidomide/rituximab
- CHRONOS: Copanlisib + rituximab for untreated and relapsed/refractory disease



RELEVANCE Trial: R² induces high molecular response in untreated FL



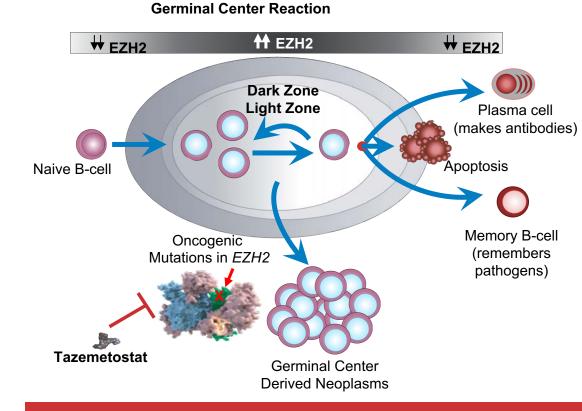
Delfau-Larue MH et al. *Blood Adv* 2020;4(14):3217-3223.

Courtesy of Christopher R Flowers, MD, MS

Follicular Lymphoma and EZH2

- EZH2 an epigenetic regulator of gene expression and cell fate decisions¹
- EZH2 is required for normal B-cell biology and germinal center formation²
 - Oncogenic mutations in *EZH2* suppress exit from germinal state and "lock" B cells in this state thereby transforming into a cancer²
- EZH2 biology relevant in both mutant (MT) and wild-type (WT) EZH2 FL
 - ~20% of patients with FL also have EZH2 gain of function mutations³

1. Gan L, et al. *Biomark Res.* 2018;6(1):10; 2. Béguelin W, et al. *Cancer Cell.* 2013;23(5)677-692. 3. Bödör C, et al. *Blood.* 2013;122:3165-3168. 4. Italiano A, et al. *Lancet Oncol.* 2018;19(5):649-59; 5. Morschhauser F, et al. *Hematol*



Tazemetostat, a selective, oral inhibitor of EZH2 has shown antitumor activity in non-Hodgkin's lymphoma patients with either MT or WT EZH2^{4,5}

On June 18, 2020, Tazemetostat was granted accelerated FDA approval for R/R FL with EZH2 mutations after at least 2 prior systemic therapies and for R/R FL with no satisfactory alternative treatment options Courtesy of John P Leonard, MD



- NewYork-Presbyterian

Phase II Trial of the Oral EZH2 Inhibitor Tazemetostat for R/R FL - Response

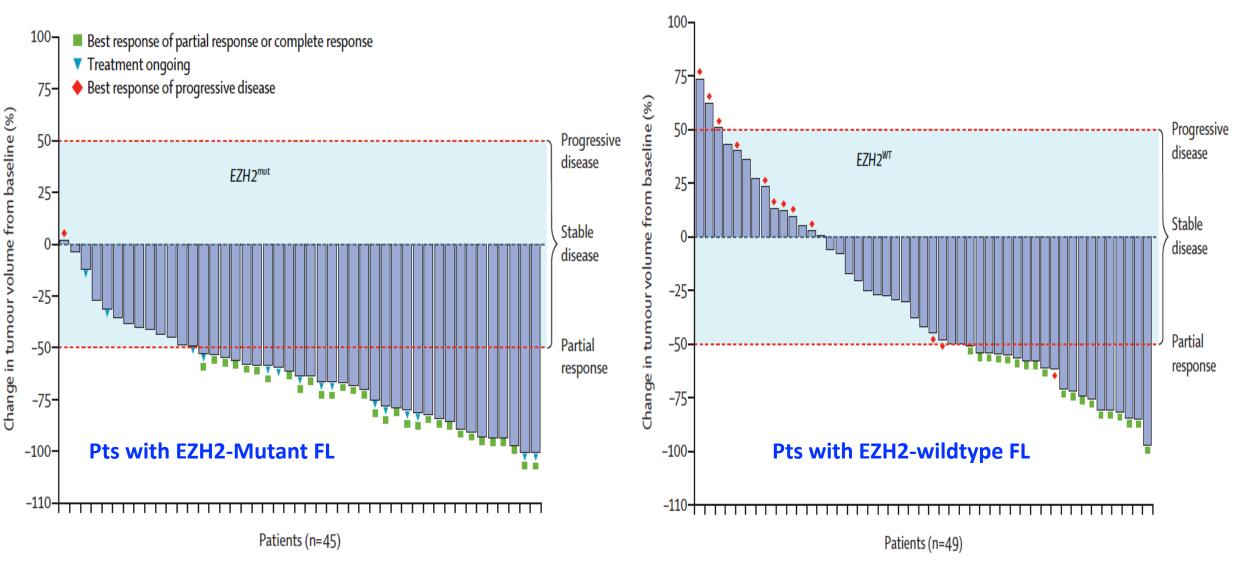
Tumor Response by EZH2 mutation status	EZH2 ^{mut} (n=45)		EZH2 ^{wr} (n=54)	
	IRC-assessed	Investigator- assessed	IRC-assessed	Investigator- assessed
Objective response rate*	31 (69%; 53-82)	35 (78%; 63-89)	19 (35%; 23-49)	18 (33%; 21–48)
Overall disease control rate†	44 (98%)	45 (100%)	37 (69%)	34 (63%)
Best overall response				
Complete response	6 (13%)	4 (9%)	2 (4%)	3 (6%)
Partial response	25 (56%)	31 (69%)	17 (31%)	15 (28%)
Stable disease	13 (29%)	10 (22%)	18 (33%)	16 (30%)
Progressive disease	1 (2%)	0	12 (22%)	16 (30%)
Not estimable or unknown	0	0	5 (9%)	4 (7%)

Data are n (%; 95% CI) or n (%). IRC=independent radiology committee. *Objective response rate includes patients with a complete or partial response. †Overall disease control rate includes patients with a complete response, partial response, or stable disease.

Morschhauser F et al. *Lancet Oncol* 2020;21(11):1433-1442.

Courtesy of Christopher R Flowers, MD, MS

Phase II Trial of Tazemetostat in R/R FL – Change in Tumor Volume from Baseline



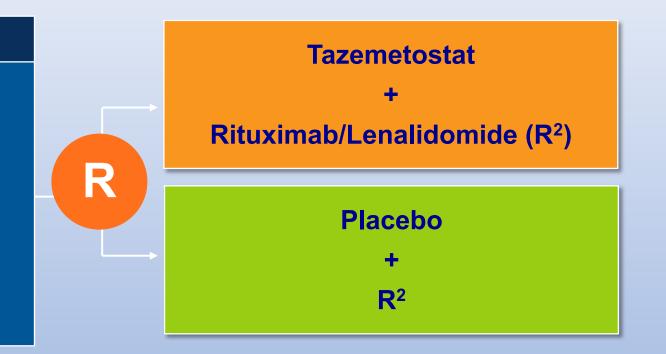
Morschhauser F et al. *Lancet Oncol* 2020;21(11):1433-1442.

Courtesy of Christopher R Flowers, MD, MS

Ongoing Phase Ib/III Trial of Tazemetostat + Len/Rituximab in R/R FL

Target accrual (N = 518)

- Must have Grade 1 to 3A FL
- Received at least 1 prior line of therapy
- No prior EZH2 inhibitor
- No prior lenalidomide for FL



- Primary endpoint:
 - Stage 1: RP3D of tazemetostat in combination with R²
 - Stage 2: PFS

Batlevi CL et al. ASH 2020; Abstract 2052; Clinicaltrials.gov; NCT04224493 (Accessed January 2021).

Courtesy of Christopher R Flowers, MD, MS

CHRONOS-3 Trial: Copanlisib + Rituximab Meets Primary Endpoint in Relapsed iNHL Press Release: October 14, 2020

- The Phase III study CHRONOS-3 evaluating copanlisib in combination with rituximab in indolent Non-Hodgkin's Lymphoma (iNHL) patients (n=458) who have relapsed after one or more prior lines of rituximab-containing therapy has met its primary endpoint of prolonged progression-free survival (PFS). The study predominantly included patients with follicular lymphoma (FL) and marginal zone lymphoma, as well as patients with small lymphocytic lymphoma and lymphoplasmacytoid lymphoma/Waldenström macroglobulinemia.
- Safety observed in the trial was generally consistent with previously published data on the individual components of the combination and no new safety signals were identified.

https://bayer2019tf.q4web.com/news/news-details/2020/Aliqopa-copanlisib-in-Combination-With-Rituximab-Meets-Primary-Endpoint-in-Patients-With-Relapsed-Indolent-Non-Hodgkins-Lymphoma/default.aspx. Courtesy of Christopher R Flowers, MD, MS If you were to administer rituximab/lenalidomide as first-line treatment for a patient with FL, what would be the duration of treatment, including maintenance therapy if used?

- 1. 1 year
- 2. 18 months
- 3. 2 years
- 4. 2.5 years
- 5. Other



Have you used or would you use obinutuzumab/lenalidomide to treat FL?

- 1. Yes, as first line treatment and beyond
- 2. Yes, as second line treatment and beyond
- 3. No



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 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 \rightarrow autologous stem cell transplant
- 8. Other



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

- 1. Idelalisib
- 2. Copanlisib
- 3. Duvelisib
- 4. Tazemetostat
- 5. R-CHOP
- 6. Radioimmunotherapy
- 7. Obinutuzumab
- 8. Obinutuzumab + chemotherapy
- 9. Other



Agenda

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Module 2: Mantle cell lymphoma

Module 3: Diffuse large B-cell lymphoma

Module 4: Hodgkin lymphoma

Module 5: CAR T-cell therapy in DLBCL and other lymphoma subtypes



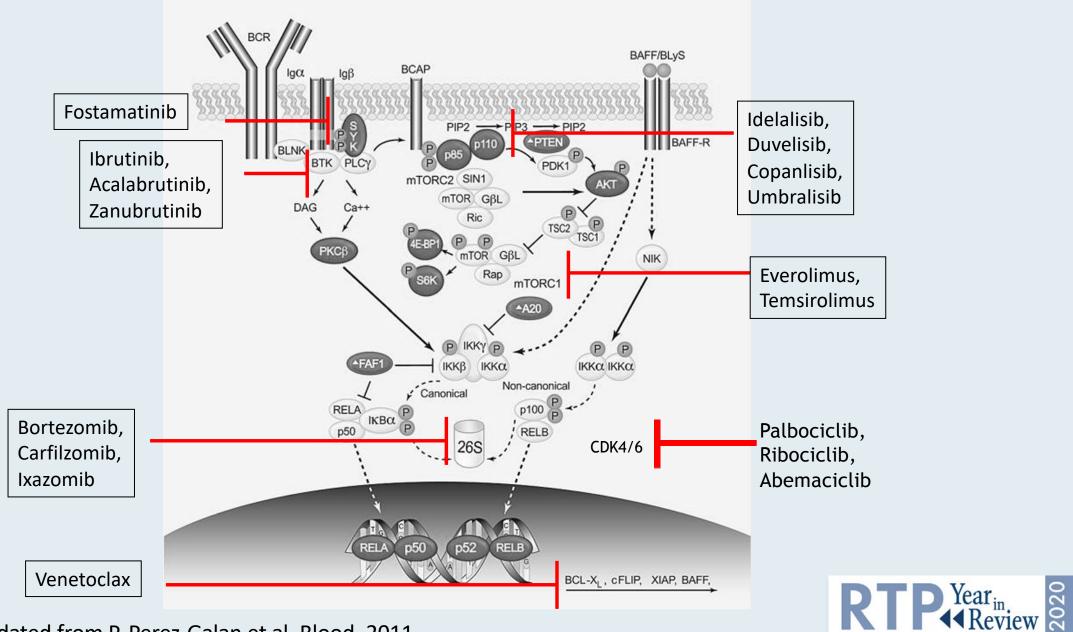
Module 2: Mantle cell lymphoma

Key Relevant Data Sets

- FDA-approved BTK inhibitors for mantle cell lymphoma (MCL)
- BRUIN: LOXO-305 for previously treated MCL, Waldenström macroglobulinemia
- ZUMA-2: Brexucabtagene autoleucel for R/R MCL



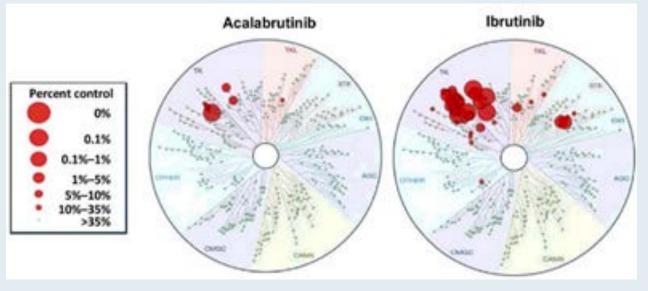
The B-cell receptor pathway: Selected inhibitors



Modified and updated from P. Perez-Galan et al. Blood. 2011

Overview of FDA-Approved BTK Inhibitors for MCL: Ibrutinib, Acalabrutinib and Zanubrutinib

- Similar overall response rates, ~70-80%
 - Better when used earlier (2nd or 3rd line)
- Improved toxicity profile for acala and zanu
 - More specific BTKi inhibition (Zanu similar to Acala)
 - Less Afib, bruising/bleeding, arthralgia
 - Prefer over ibrutinib if concurrent anticoagulation and/or anti-platelet therapy





Herman et al, Clin Ca Res 2017

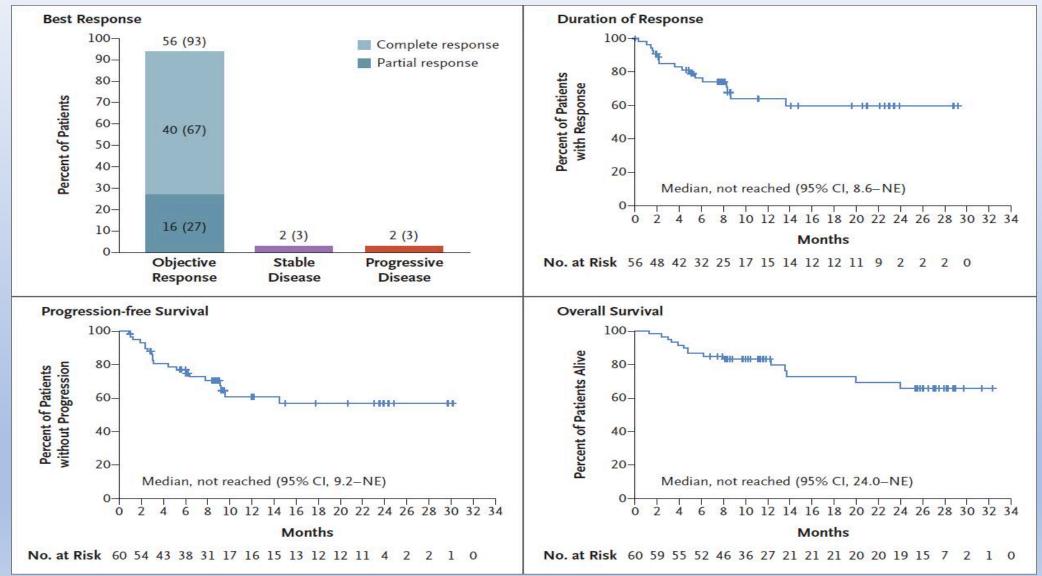
Courtesy of Michael E Williams, MD, ScM

Phase I/II BRUIN Trial of LOXO-305 in Previously Treated MCL, Waldenström's Macroglobulinemia, and Other Non-Hodgkin Lymphomas

- LOXO-305 is a highly selective, non-covalent BTK inhibitor that inhibits both wild type and C481-mutated BTK with equal low nanomolar potency
- Median number of prior lines of therapy was 2 for MCL (range 2-8)
- Responses were observed at the first dose level of 25 mg QD.
- RP2D of 200 mg QD was selected for future studies.
- Among 35 evaluable pts with MCL
 - ORR = 51%
 - CR = 9 (25.7%)
 - Among the 20 efficacy evaluable pts who started at RP2D, ORR was 65% with 7 CRs
- Responses in MCL were observed in pts who received prior cell therapy, including 3 of 7 patents with prior SCT, and 1 of 2 with prior CAR-T
- There were no DLTs or dose reductions.
- The only TEAEs regardless of attribution or grade seen in ≥10% of pts (n=186) were fatigue (n=29, 16%) and diarrhea (n=28, 15%).

Wang M et al. ASH 2020; Abstract 117.

Results from the ZUMA-2 Trial of KTE-X19 CAR T-Cell Therapy in R/R MCL (7-Month Follow-Up)



Wang M et al. *N Engl J Med* 2020;382(14):1331-1342.

Courtesy of Christopher R Flowers, MD, MS

ZUMA-2: One-Year Follow-Up Results for 60 Pts

- The ORR = 92%
 - CR rate = 67%
- Of all efficacy-evaluable patients, 48% had ongoing responses at the data cutoff. Median DoR, PFS and OS = Not reached
 - 15-month PFS = 59.2%
 - 15-month OS = 76.0%

ZUMA-2: One-Year Follow-Up Results for 60 Pts

- Common grade ≥ 3 AEs: Neutropenia (85%), thrombocytopenia (53%), anemia (53%), and infections (34%).
- Grade \geq 3 cytopenias were reported in 60% of patients \geq 30 days post-infusion.
- Grade ≥ 3 CRS occurred in 15% of patients; 59% received tocilizumab
- Grade ≥ 3 neurologic events (NEs) were reported in 31% of patients;
 8% received steroids
- All CRS events and most NEs (37/43) resolved, as previously reported.
- There were no Grade 5 CRS events or NEs, and no new Grade 5 events occurred with additional follow-up.

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

- 1. Ibrutinib
- 2. Acalabrutinib
- 3. Zanubrutinib
- 4. Lenalidomide
- 5. Lenalidomide + rituximab
- 6. Venetoclax
- 7. Venetoclax + rituximab
- 8. 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 tumor progression?

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



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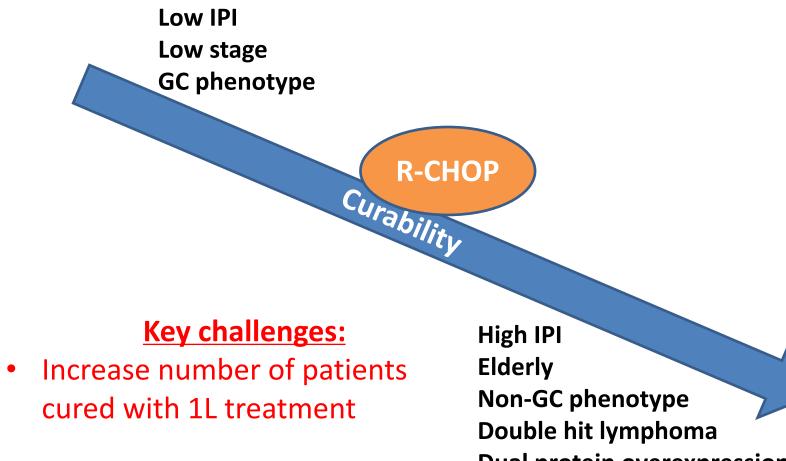
Module 3: Diffuse large B-cell lymphoma

Key Relevant Data Sets

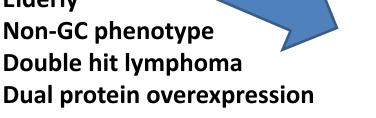
- SADAL: Selinexor for relapsed/refractory DLBCL
- L-MIND: Tafasitamab + lenalidomide
- Investigational bispecific agents



Many subsets of DLBCL are not cured with R-CHOP

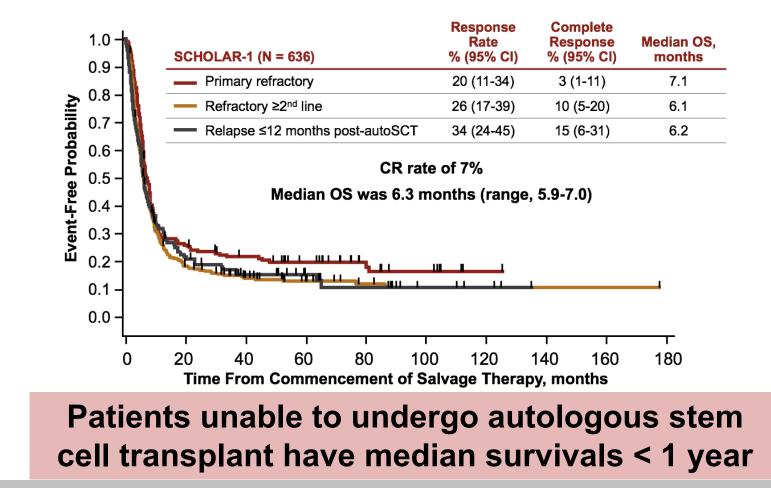


Improve options for patients 2L+ •





Expected Survival for R/R DLBCL Treated with Salvage Chemotherapy

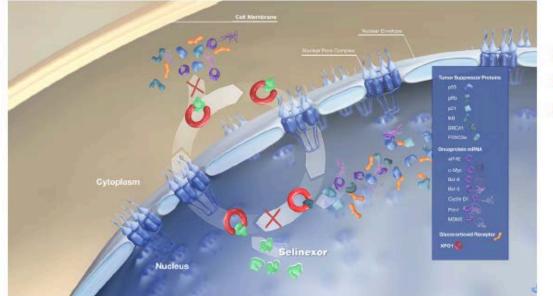




Crump M, et al. Blood. 2017;130:1800-1808

Selinexor: oral XPO1 inhibitor

Selinexor: Mechanism of Action



Exportin I (XPOI or CRMI) mediates the nuclear export of proteins, mRNAs, rRNAs, snRNAs and impacts

- Tumor suppressor proteins (p53, lkB, FOXO etc.)
- eIF4E (Translational initiation factor) bound oncogenic mRNAs (c-Myc, Bcl-xL, cyclins etc.)

Selinexor is an oral selective XPOI inhibitor; preclinical data support that XPOI inhibition:

- Reactivates multiple TSPs relevant to NHL, (p53, p21, IκB, FOXO etc.)
- Disrupts localization of eIF4e (overexpressed in most B-cell lymphomas¹
- Reduces c-Myc, Bcl-2, and Bcl-6 levels²⁻³



SADAL: phase 2 trial of selinexor monotherapy in R/R DLBCL

Patient characteristics:

N=127 with med age 67y 45% of pts ≥ 70y 72% refractory to last regimen

Results:

ORR 28% CR 12% Med DR 9.3m --med DR for CR pts 23m --med DR for PR pts 4.4m No impact of COO

	n/N	75	Overall response rate (%)	95% CI
DLBCL Subtype				
GCB	20/59	· · · · · · · · · · · · · · · · · · ·	34%	(22.1-47.4)
Non-GCB	13/63		21%	(11.5-32.7)
De novo or transform	ed			
De novo	23/94		24%	(16-2-34-4)
Transformed	12/31		39%	(21-8-57-8)
Refractory to last line			0.00	
Yes	25/91		27%	(18-6-37-8)
No	11/30		37%	(19-9-56-1)
Previous ASCT therap	У			
Yes	16/38		42%	(26-3-59-2)
No	20/89		22%	(14-3-32-6)
Gender				
Female	17/52		33%	(20.3-47.1)
Male	19/75		25%	(16-0-36-7)
Age	A19030		1.10	
≥70	14/57		25%	(14.1-37.8)
<70	22/70		31%	(20.9-43.6
Number of previous I	ines			
>2	16/52		31%	(18.7-45.1)
2	20/75		27%	(17-1-38-1)
Creatine clearance				
30-60 mL/min	10/32	3 8	31%	(16-1-50-0)
>60 mL/min	26/93		28%	(19.1-38.2)
Overall	36/127		28%	(20.7-37.0
	6	20 40 60	80 100	



Kalakonda N et al. Lancet Haematol 2020;7(7):e511-22.

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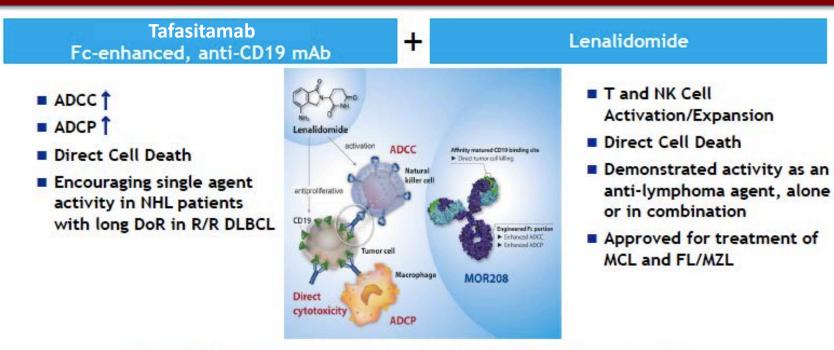
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Tafasitamab MOA



Potentiation of activity by combining Tafasitamab & LEN in vivo and in vitro

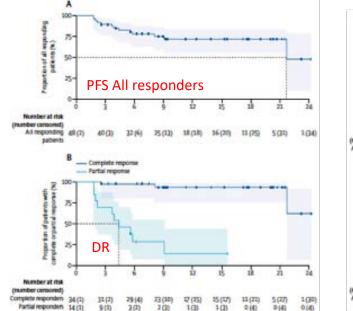
L-MIND trial: phase 2 trial of tafa-len x 12 cycles in R/R DLBCL

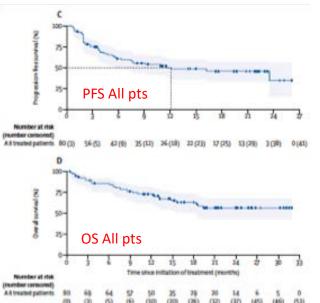
Salles et al. ICML 2019. #124.

Hortonet al., 2008; Awanet al., 2010; Richter et al., 2013; MorphoSys data on file; Wu et al., 2008; Lapalombella et al., 2008; Zhang et al., 2013, Wiernik et al., 2008; Witzig et al., 2011; Czuczman et al., 2017; Jurczak et al, 2018



L-MIND Results: very long response duration for CR pts





Patient characteristics:

N=81 with med age 72y 50% of pts 2L 42% R-ref, 44% ref

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<u>Results:</u>

ORR 60%, CR 43% Med DR 22m but NR for CR pts

Salles G et al. Lancet Oncol. 2020 Jul;21(7):978-988

L-MIND Results: very long response duration for CR pts

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Results:

ORR 60%, CR 43% Med DR 22m but NR for CR pts



Salles G et al. Lancet Oncol. 2020 Jul;21(7):978-988

ASH 2020: Advent of Bispecifics in Lymphoma

• CD20 x CD3

- REGN1979 Bannerji ASH 2020 #400
- Mosunetuzumab Olszewski ASH 2020 #401
- Epcoritamab Hutchings ASH 2020 #402
- Glofitamab Hutchings ASH 2020 #403

• CD19 x CD3

• MB-CART2019.1 — Borchman ASH 2020 #404



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

- 1. Polatuzumab vedotin/BR
- 2. Tafasitamab/lenalidomide
- 3. Selinexor
- 4. CAR T-cell therapy
- 5. I don't know



Agenda

Module 1: Follicular lymphoma

Module 2: Mantle cell lymphoma

Module 3: Diffuse large B-cell lymphoma

Module 4: Hodgkin lymphoma

Module 5: CAR T-cell therapy in DLBCL and other lymphoma subtypes



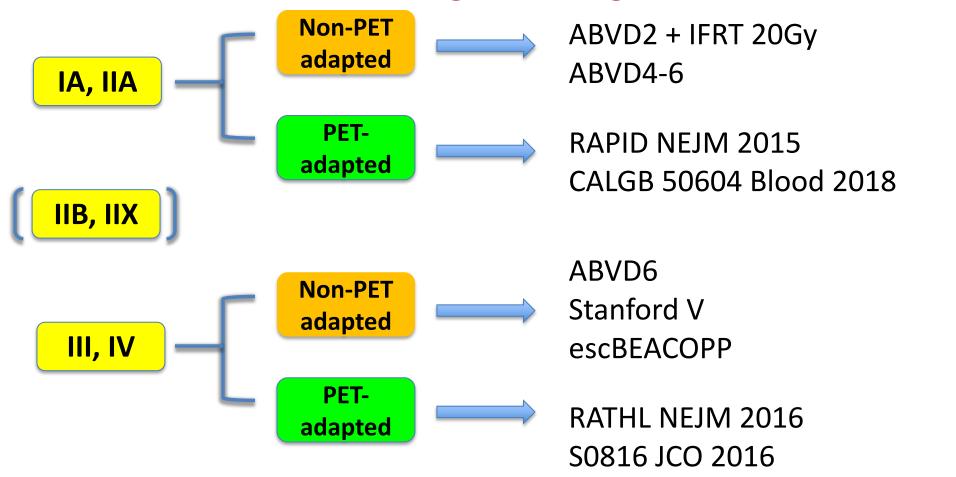
Module 4: Hodgkin lymphoma

Key Relevant Data Sets

- ECHELON-1: Five-year update
- AETHERA: Five-year follow-up
- Brentuximab vedotin (BV) + nivolumab as first-line therapy
- KEYNOTE-204: Pembrolizumab versus BV for R/R classical HL

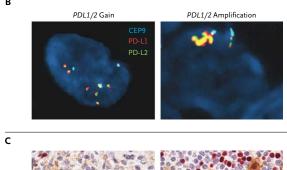


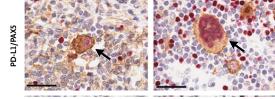
Snapshot of frontline standard treatment approach prior to targeted agents





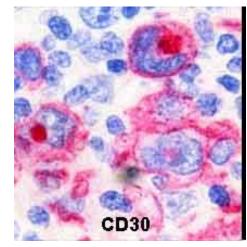
Evolution of care: two "new" targets



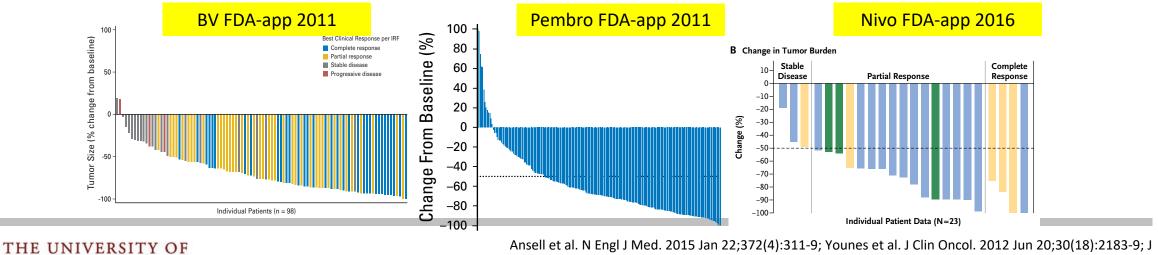


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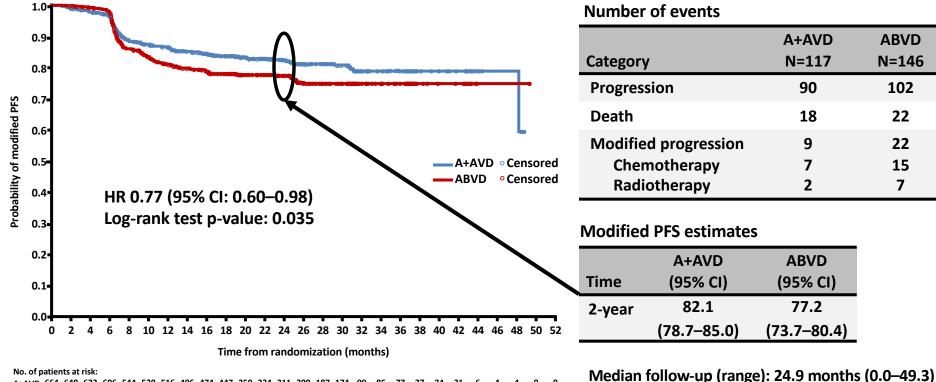


http://pleiad.umdnj.edu/~dweiss/hd_types/hdlmmuno_img.html



Ansell et al. N Engl J Med. 2015 Jan 22;372(4):311-9; Younes et al. J Clin Oncol. 2012 Jun 20;30(18):2183-9; J Clin Oncol. 2017 Jul 1;35(19):2125-2132

Integration of targeted agents into frontline management of advanced stage cHL: ECHELON-1

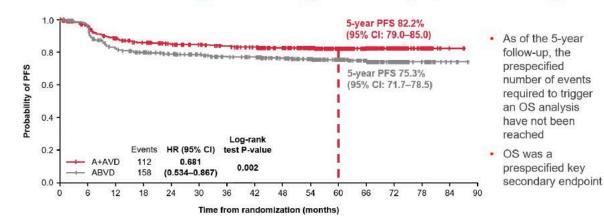


A+AVD 664 640 623 606 544 530 516 496 474 447 350 334 311 200 187 174 99 85 77 27 ABVD 670 644 626 613 522 496 476 459 439 415 328 308 294 179 168 153 78 68 62 16 13 12



Connors et al. NEJM online 2017; slide courtesy of Alex Herrera

ASH 2020: 5-year follow up of ECHELON-1



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

- At 5 years A+AVD continues to demonstrate a robust and durable treatment benefit independent of disease stage, risk factor score, and PET2 status, without requiring change of therapy based on interim PET assessment and without exposure to bleomycin.
- The sustained PFS benefit with A+AVD is coupled with:
 - A manageable long-term safety profile
 - A low rate of secondary malignancies

Conclusions

Author

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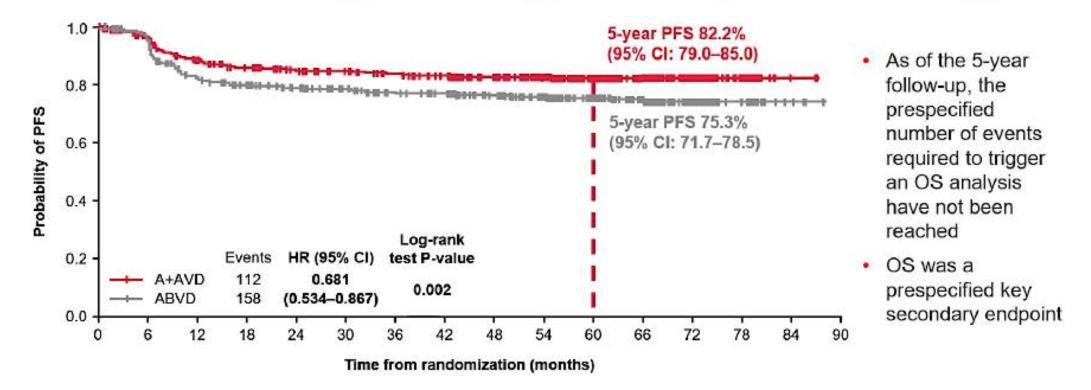
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- No observed impact on the rate of successful pregnancies compared with ABVD
- A high rate of resolution and improvement of PN, with symptoms of PN resolving or improving over time.
- As most relapses in cHL occur within 5 years of frontline treatment, these long-term PFS data suggest that more patients may have been cured of their disease with A+AVD versus ABVD.
- A+AVD should be considered a preferred treatment option for all patients with previously untreated Stage III or IV cHL.

Strauss DJ et al. Brentuximab Vedotin with Chemotherapy for Patients with Previously Untreated, Stage III/IV Classical Hodgkin Lymphoma: 5-Year Update of the ECHELON-1 Study. ASH 2020; Abstract 2973. Poster

ASH 2020: 5-year follow up of ECHELON-1

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



THE UNIVERSITY OF CHICAGO MEDICINE & BIOLOGICAL SCIENCES Strauss DJ et al. Brentuximab Vedotin with Chemotherapy for Patients with Previously Untreated, Stage III/IV Classical Hodgkin Lymphoma: 5-Year Update of the ECHELON-1 Study. ASH 2020; Abstract 2973. Poster

ASH 2020: 5-year follow up of ECHELON-1

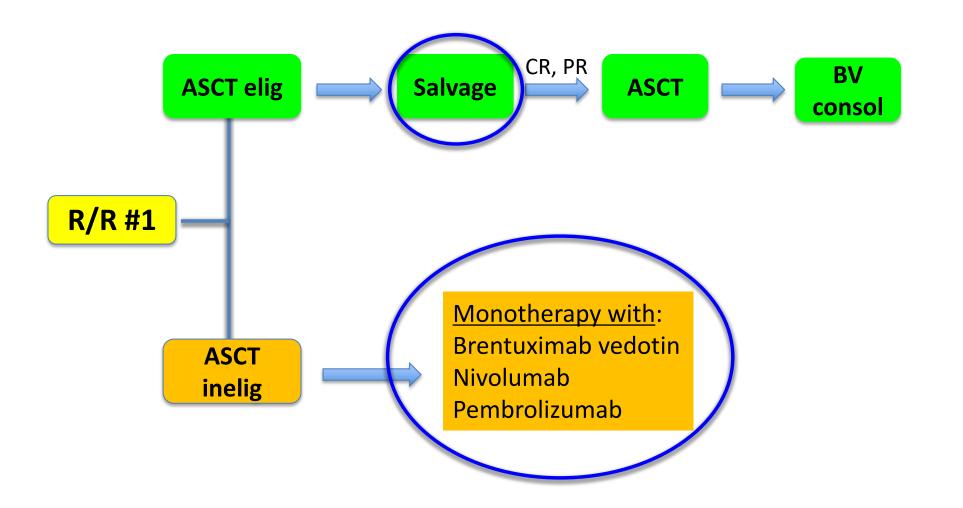
Author Conclusions

- At 5 years A+AVD continues to demonstrate a robust and durable treatment benefit independent of disease stage, risk factor score, and PET2 status, without requiring change of therapy based on interim PET assessment and without exposure to bleomycin.
- · The sustained PFS benefit with A+AVD is coupled with:
 - A manageable long-term safety profile
 - A low rate of secondary malignancies
 - No observed impact on the rate of successful pregnancies compared with ABVD
 - A high rate of resolution and improvement of PN, with symptoms of PN resolving or improving over time.
- As most relapses in cHL occur within 5 years of frontline treatment, these long-term PFS data suggest that more patients may have been cured of their disease with A+AVD versus ABVD.
- A+AVD should be considered a preferred treatment option for all patients with previously untreated Stage III or IV cHL.



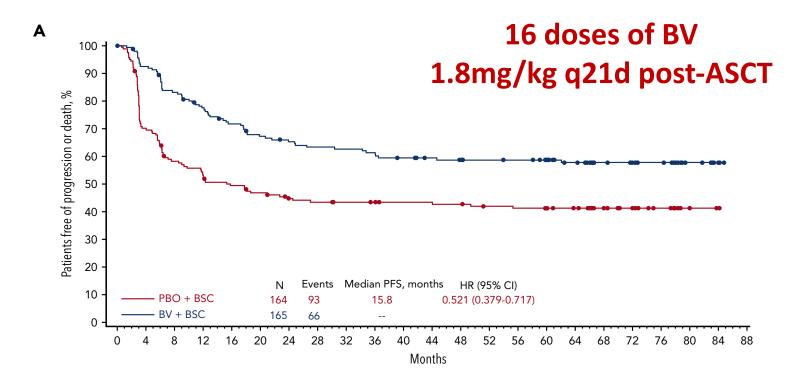
Strauss DJ et al. Brentuximab Vedotin with Chemotherapy for Patients with Previously Untreated, Stage III/IV Classical Hodgkin Lymphoma: 5-Year Update of the ECHELON-1 Study. ASH 2020; Abstract 2973. Poster

Treatment approach for relapsed cHL





5-year follow up of post-ASCT BV (AETHERA TRIAL)



Moskowitz et al. Blood. 2018 Dec 20;132(25):2639-2642.

Is there a shorter, less toxic post-transplant option?

Treatment:

30-75 days post AHCT

1.8mg/kg BV and 3mg/kg nivo q21d x 8 doses

Primary endpoint 18m PFS

Patients:

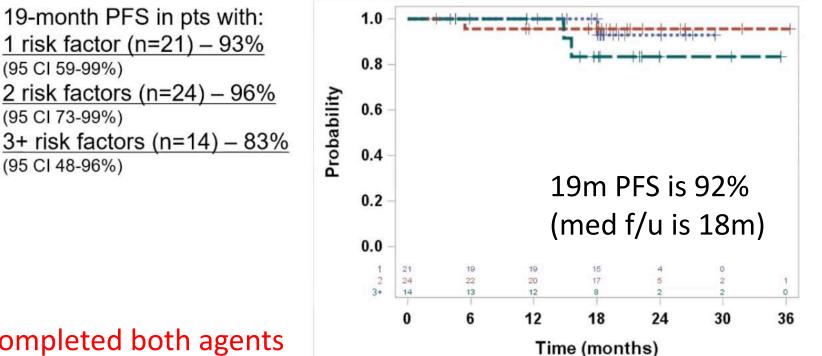
N=59
Med age 30 (18-72y)
32% primary refractory disease
39% EN disease
51% prior BV
42% prior PD-1 inhibitors



Herrera AF et al. ASH 2020; Abstract 472

Post-autologous stem cell transplant BV + nivo

PFS according to number of risk factors



(95 CI 48-96%)

Only 49% completed both agents

Most common AEs were neuropathy, neutropenia

27% had immune-related AE's requiring steroids



Herrera AF et al. ASH 2020; Abstract 472

KEYNOTE-204: Pembro vs. BV in R/R cHL

Primary End Point: Progression-Free Survival Per Blinded Independent Central Review Including Clinical and Imaging Data Following Auto-SCT or Allo-SCT Events HR P value 90 % n (%) (95% CI) 53.9% Survival, 80 81 (53.6) 0.65 0.00271 35.6% Pembro 70 (0.48 - 0.88)BV 60 · sion-Free 50 · **Progression-Free Survival in Key Subgroups** 40 30 No. of Events/N Progr 20 Overall 169/304 0.65 (0.48-0.88 **---**Prior auto-SCT 10 Yes 57/112 0.72 (0.42-1.23) 112/192 0.61 (0.42-0.89) No ----Disease status after frontline therapy 12 15 18 21 24 Primary refractory 72/123 0.52 (0.33-0.83) Months -----No at Risk Relapsed <12 months 46/84 0.82 (0.45-1.48) -----Relapsed ≥12 months 51/97 0.72 (0.41-1.25) -----Data cutoff: January 16, 202 Female 81/130 0.49 (0.31-0.78) -----Male 88/174 0.75 (0.49-1.14) -Aae <65 years 132/255 0.59 (0.42-0.84) ≥65 years 37/49 0.64 (0.32-1.30) ECOG PS 91/186 0.54 (0.35-0.83) 0 77/117 0.76 (0.48-1.21) Geographic region 9/24 0.89 (0.16-4.98) Med PFS 13.2 vs. 8.3m Ex-US 160/280 0.66 (0.48-0.91) ----Prior BV Yes 7/15 0.34 (0.04-3.10) 162/289 0.67 (0.49-0.92) No favoring pembro Pembro Better BV Better Estimated Hazard Ratio Data cutoff: January 16, 2020

• Most pts BV-naive

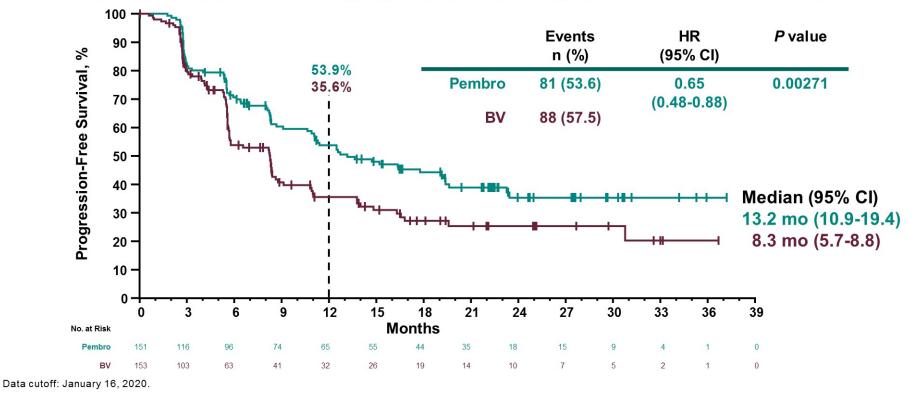
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Kuruvilla J et al. ASCO 2020; Abstract 8005. Oral, HoD Zinzani P et al. EHA 2020; Abstract LB2600. Late Breaking Kuruvilla J et al.. ASH 2020; Abstract 1158. Poster

KEYNOTE-204: Pembro vs. BV in R/R cHL

Primary End Point: Progression-Free Survival Per Blinded Independent Central Review

Including Clinical and Imaging Data Following Auto-SCT or Allo-SCT

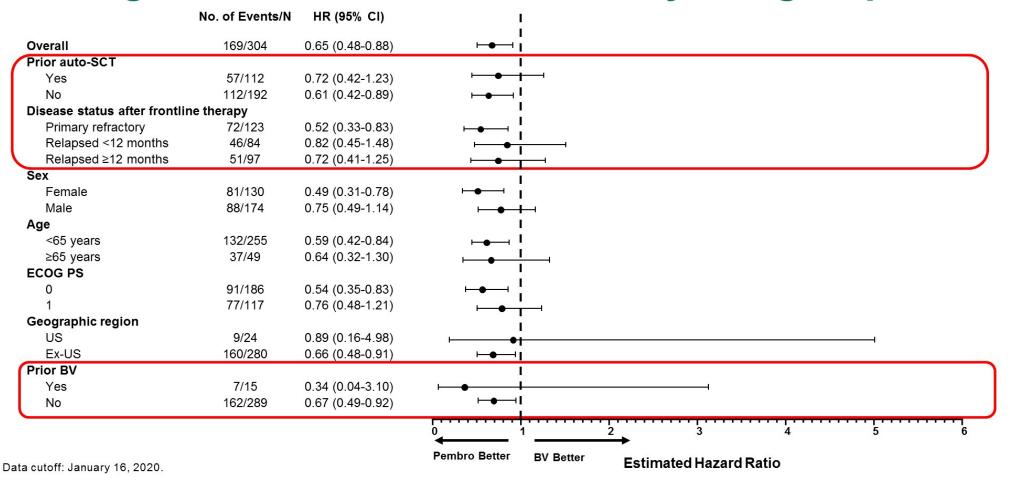




Kuruvilla J et al. ASCO 2020; Abstract 8005. Oral, HoD Zinzani P et al. EHA 2020; Abstract LB2600. Late Breaking Kuruvilla J et al.. ASH 2020; Abstract 1158. Poster

KEYNOTE-204: Pembro vs. BV in R/R cHL

Progression-Free Survival in Key Subgroups





Kuruvilla J et al. ASCO 2020; Abstract 8005. Oral, HoD Zinzani P et al. EHA 2020; Abstract LB2600. Late Breaking Kuruvilla J et al.. ASH 2020; Abstract 1158. Poster

Combination targeted therapy in R/R cHL



Grade 3-4 AE's seen in all groups slightly higher in Ipi-groups (43% ipi vs. 50% in triplet vs. 16% in nivo groups)

Grade 5 toxicity 2 deaths from pneumonitis (nivo group and triplet group)



Houot R, Merryman RW, Morschhauser F. Lancet Haematol. 2020 Sep;7(9):e629-e630 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?

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



Agenda

Module 1: Follicular lymphoma

Module 2: Mantle cell lymphoma

Module 3: Diffuse large B-cell lymphoma

Module 4: Hodgkin lymphoma

Module 5: CAR T-cell therapy in DLBCL and other lymphoma subtypes



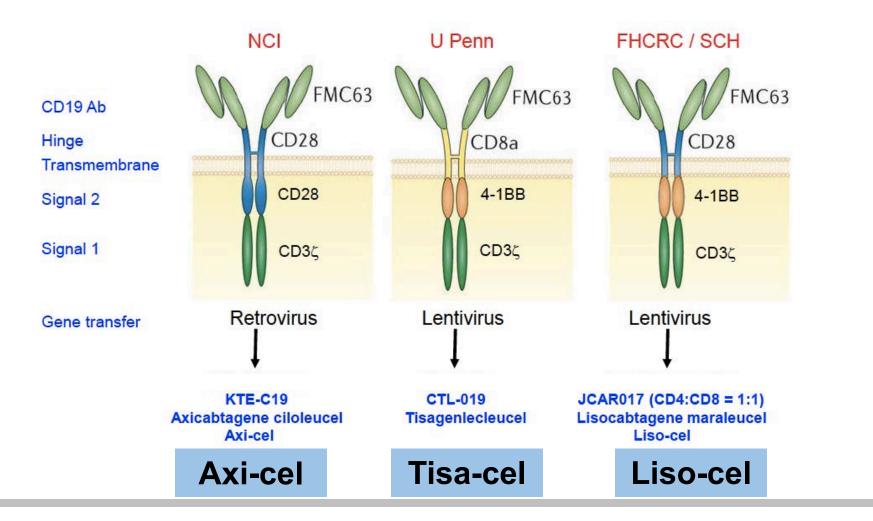
Module 5: CAR T-cell therapy

Key Relevant Data Sets

- Lisocabtagene maraleucel versus axicabtagene ciloleucel (axi-cel) + tisagenlecleucel for R/R large B-cell lymphoma (LBCL)
- ZUMA-12: First-line axi-cel for high-risk LBCL
- TRANSCEND NHL 001: Lisocabtagene maraleucel for R/R LBCL
- JULIET: Tisagenlecleucel for R/R DLBCL
- ELARA: Tisagenlecleucel for R/R FL
- ZUMA-5: Axi-cel for R/R indolent non-Hodgkin lymphoma

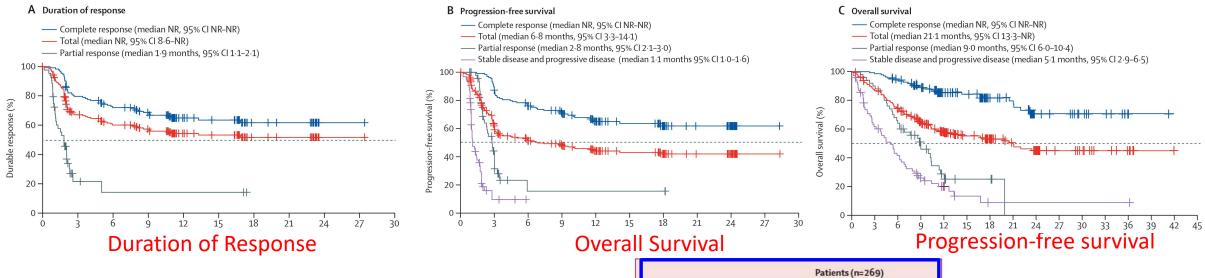


CD19 Directed CAR T Cell Products in Clinical Development





Adapted from van der Steegan et al. Nat Rev Drug Discov, 2015



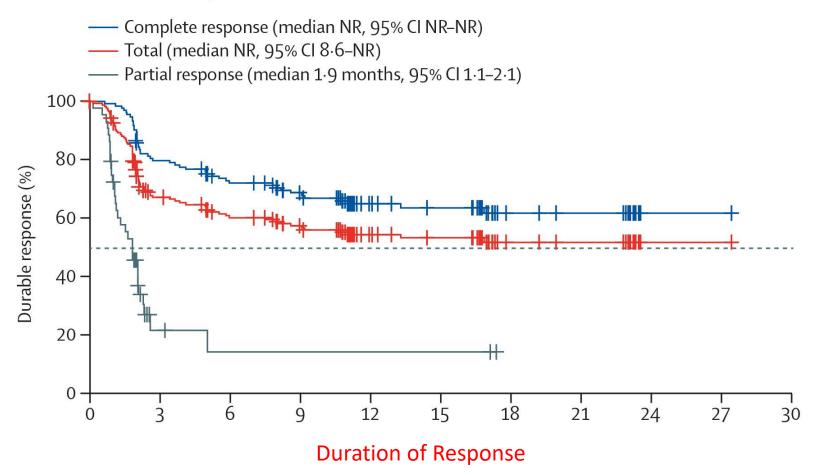
Key patient features:

269 of 344 pts received product42% over age 65y67% chemo-refractory7 pts with secondary CNSL

	Patients (n=269)
Cytokine release syndrome, neurological events, or both	127 (47%)
Cytokine release syndrome*	
Any grade	113 (42%)
Grade 3	4 (1%)
Grade 4	2 (1%)
Time to onset, days	5 (1-14)
Time to resolution, days	5 (1-17)
Neurological events†	
Any grade	80 (30%)
Grade 3	23 (9%)
Grade 4	4 (1%)
Time to onset, days	9 (1-66)
Time to resolution, days	11 (1-86)



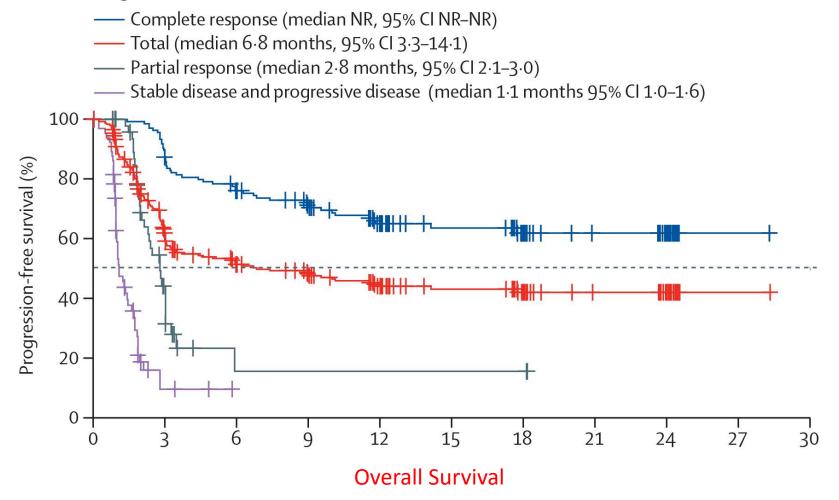
A Duration of response





Abramson JS et al. Lancet. 2020 Sep 19;396(10254):839-852

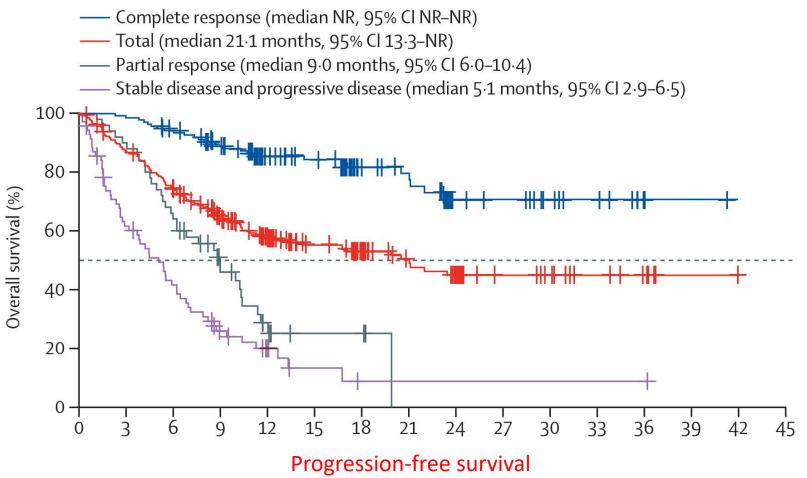
B Progression-free survival





Abramson JS et al. Lancet. 2020 Sep 19;396(10254):839-852

C Overall survival





Abramson JS et al. Lancet. 2020 Sep 19;396(10254):839-852

Key patient features:

269 of 344 pts received product

42% over age 65y

67% chemo-refractory

7 pts with secondary CNSL



	Patients (n=269)
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ytokine release syndrome	2020
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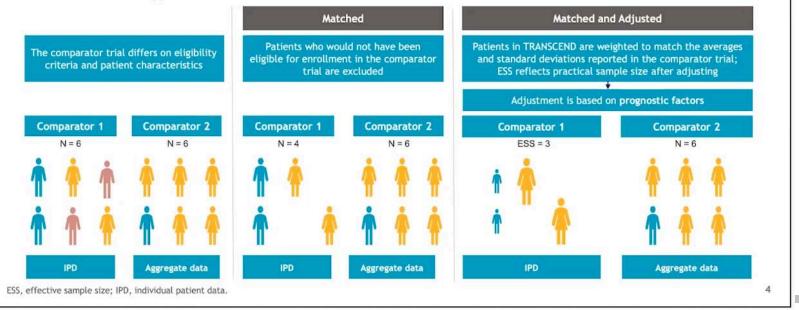


Matching-Adjusted Indirect Comparison (MAIC) of Liso-cel vs Axi-cel and Tisagenlecleucel in R/R Large B-Cell Lymphoma Is there a "best-in-class" CAR-T product?

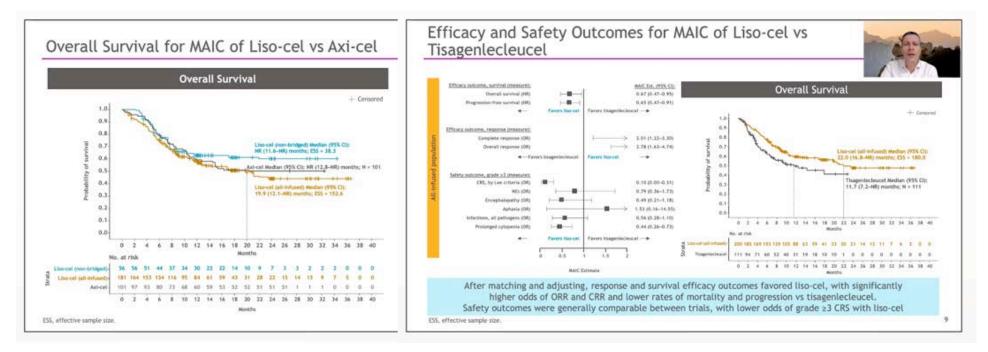
MAICs to Estimate Population-Adjusted Relative Treatment Effects



 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



Liso-cel vs. Axi-cel and Liso-cel vs. Tisa-cel



- Pairwise matching-adjusted comparison study with matching and then adjustment of ZUMA-1, TRANSCEND, JULIET
- Better safety and comparable efficacy: liso-cel versus axi-cel
- Better efficacy and comparable safety: liso-cel versus tisa-cel

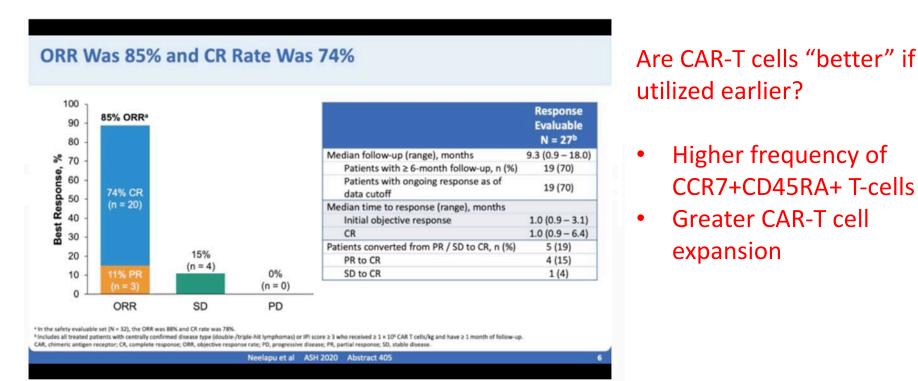


Liso-cel vs. Axi-cel and Liso-cel vs. Tisa-cel

- Pairwise matching-adjusted comparison study with matching and then adjustment of ZUMA-1, TRANSCEND, JULIET
- Better safety and comparable efficacy: liso-cel versus axi-cel
- Better efficacy and comparable safety: liso-cel versus tisa-cel



Interim Analysis of ZUMA-12 Trial of Axi-cel as First-Line Therapy for Patients with High-Risk Large B-Cell Lymphoma Moving CAR T-cell therapy earlier: high-risk DLBCL



Med f/u 9.5m



Neelapu SS et al. ASH 2020; Abstract 405

Courtesy of Sonali M Smith, MD

Higher frequency of

Greater CAR-T cell

expansion

CCR7+CD45RA+ T-cells

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

Fowler NH et al. ASH 2020;Abstract 1149.



Phase II ZUMA-5 Trial of Axicabtagene Ciloleucel





Key eligibility criteria

- R/R FL (Grade 1 Grade 3a) or MZL (nodal or extranodal)^a
- ≥ 2 prior lines of therapy—must have included an anti-CD20 mAb combined with an alkylating agent

Conditioning regimen

 Fludarabine 30 mg/m² IV and cyclophosphamide 500 mg/m² IV on Days -5, -4, -3
 <u>Axi-cel</u>: 2 × 10⁶ CAR+ cells/kg

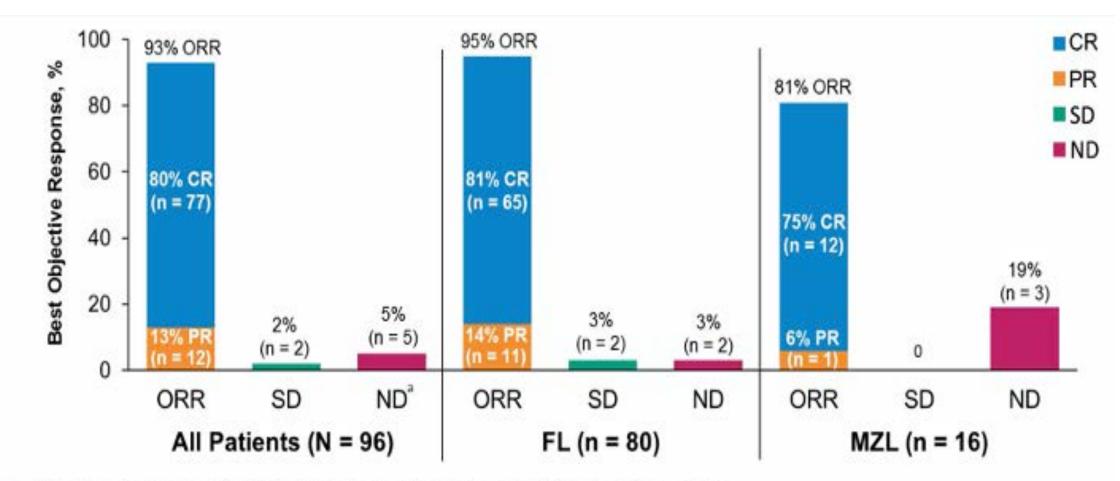
Primary endpoint

 ORR (IRRC-assessed per the Lugano classification¹)

Key secondary endpoints

- CR rate (IRRC-assessed)
- DOR, PFS, OS
- AEs
- CAR T cell and cytokine levels

ZUMA-5: Response



- The median time to first response was 1 month (range, 0.8 3.1)
- Of the 80 patients with FL, 10 (13%) had an initial response of PR at Week 4 and later converted to CR

Jacobson CA et al. ASCO 2020; Abstract 8008.

Courtesy of Christopher R Flowers, MD, MS

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

Tuesday, January 19, 2021 5:00 PM – 6:00 PM ET

Faculty Matthew Gubens, MD, MS Suresh S Ramalingam, MD

> Moderator Neil Love, MD



Thank you for joining us!

CME and MOC credit information will be emailed to each participant within 5 business days.

