

# Novità dal Meeting della Società Americana di Ematologia

Milano Teatro Dal Verme 2-3-4 Febbraio 2023

COORDINATOR

Angelo Michele Carella Pier Luigi Zinzani **BOARD SCIENTIFICO** 

Paolo Corradini Mauro Krampera Fabrizio Pane Adriano Venditti



Novità dal Meeting della Società Americana di Ematologia

Milano, 2-3-4 Febbraio 2023

#### **Programma Scientifico**

#### **GIOVEDÌ 2 FEBBRAIO 2023**

13.30 Registrazione dei partecipanti

13.40 Benvenuto A.M. CARELLA
P. CORRADINI

P.L. ZINZANI

P.L. ZINZANI

A. PINTO

M. MARTELLI

A.J.M. FERRERI

M. MARTELLI

M. LADETTO

L. RIGACCI

13.50 Introduzione alla lettura P. CORRADINI

14.00 Vexas syndrome N.S. YOUNG

1° SESSIONE - LINFOMA I

14.30 Stato dell'arte P.L. ZINZANI

14.40 Linfoma di Hodgkin C. RUSCONI 15.00 Linfoma mantellare C. VISCO

15.20 Linfomi di derivazione T linfocitaria

15.40 Discussione

2° SESSIONE - LINFOMA II

15.55 Stato dell'arte

16.05 Linfomi indolenti

16.25 Linfomi aggressivi di derivazione B linfocitaria

16.45 Terapie di salvataggio con anticorpi monoclonali

17.05 Discussione

## Linfomi Indolenti

Prof. Marco Ladetto, MD

AO SS Antonio e Biagio e Cesare Arrigo,

Alessandria Università degli Studi del Piemonte Orientale



Milano, 2-3-4 Febbraio 2023

### **DISCLOSURE INFORMATION**

#### Marco Ladetto

I declare in the last five years the following relationships in terms of consultancy, participation to advisory boards, invitation scientific meetings, institutional research support and contracts with: <a href="https://docs.ncbe.new.color.org/">AbbVie, Acerta, Amgen, ADC Therapeutics, BeiGene, BeiGene, BMS, Eusapharma, GSKI, Gentili, Gilead/Kite, Lilly, Novartis, Incyte J&J, Jazz, Regeneron, Roche, Sandoz.</a>

#### Non-financial interests:

PI or strategic investigator in studies supported by: Celgene, J&J, BeiGene, ADC Therapeutics

#### Leadership roles:

Vice-President/President elect of Fondazione italiana linfomi (FIL)

Member of the EHA Guideline Committee

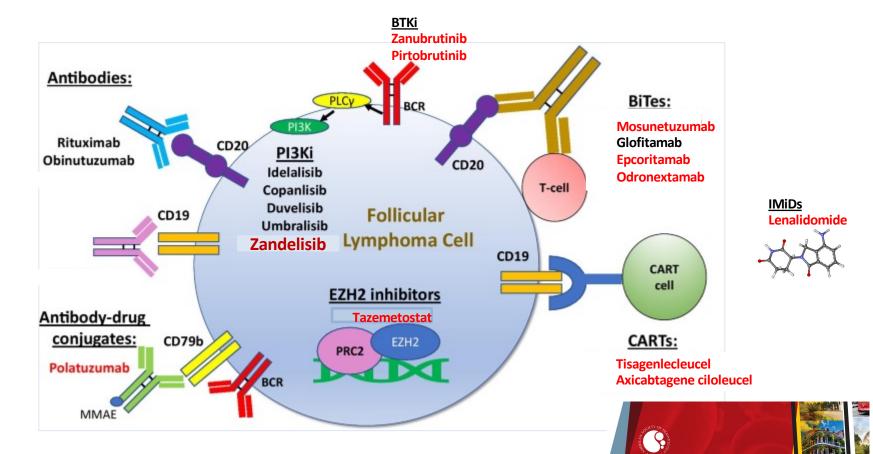
Member of the ESMO Guidelines Committee up to Dec 2018

Member of the ESMO Educational Committee

Vice President Associazione italiana leucemie (Alessandria section)

### INTRODUCTION

- FL, MZL and WM are forms of indolent non-Hodgkin lymphoma (iNHL) in which malignant tumors slowly grow but can become more aggressive over time. FL is largely the most common
- Therapeutic choices often difficult due to the prolonged natural history and lack of large studies in some settings
- The therapeutic paradigm is shifting from immunochemotherapy to biologicals and T-cell engaging treatments.
- ➤ ASH 2022 provided additional evidence on some established combinations (such as R2) as well as insight on novel drugs and combinations



64th ASH Annual Meeting

SAVE THE DATE!

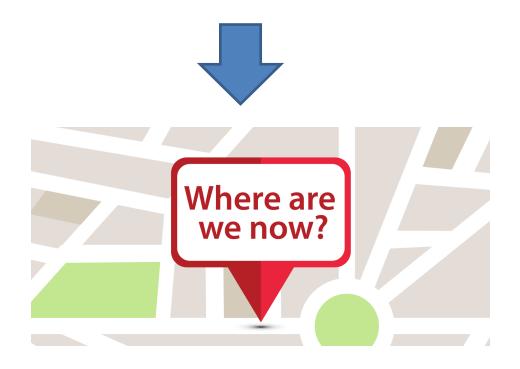
and Exposition

December 10 - 13, 2022 New Orleans, Louisiana

Hanel, W., Epperla, N. Evolving therapeutic landscape in follicular lymphoma: *a look at emerging and investigational therapies. J Hematol Oncol* **14**, 104 (2021).

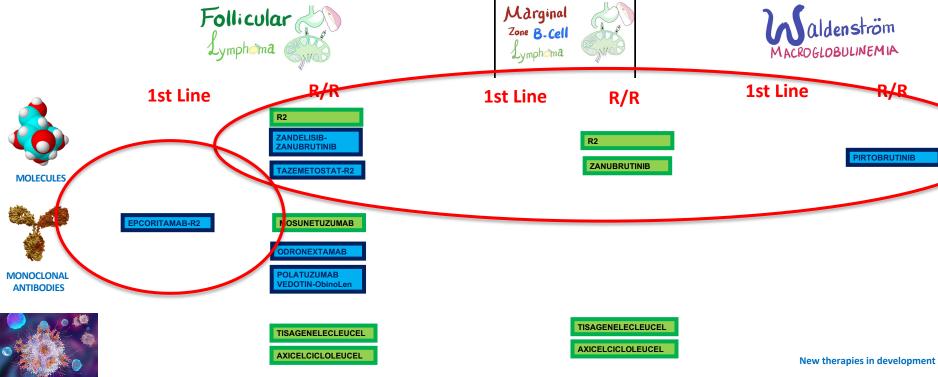












CAR-T

**Updated results** 



Subcutaneous Epcoritamab in Combination with Rituximab + Lenalidomide (R2) for First-Line Treatment of Follicular Lymphoma: Initial Results from Phase 1/2 Trial

Lorenzo Falchi<sup>1</sup>, Lori A. Leslie, David Belada, Katerina Kopeckova, Fritz Offner, Joshua Brody, Miguel Canales, Alejandro Martí, García-Sancho, Marcel Nijland, P-O Andersson, Farrukh T. Awan, Jacob Haaber Christensen, Kristina Drott, Mats Hellström, Catharina Lewerin, Mayur Narkhede, Sylvia Snauwaert, Björn E Wahlin, Ali Rana, Ageel Abbas, Liwei Wang, Minh Dinh, Joost S.P. Vermaat, Pau Abrisqueta

1.Lymphoma Service, Memorial Sloan Kettering Cancer Center, New York, NY

#### Study Design: EPCORE NHL-2, Arm 6



## Key Inclusion criteria Previously untreated CD20\* FL — Grade 1, 2, or 3A

- Need for treatment based on symptoms or disease burden, as determined by GELF criteria\*
- ECOG P8 0-2
- . Measurable disease by CT or MRI
- · Adequate organ function

Data cutoff: September 16, 3022 Median follow-up, mo (range)\*: 8.1 (1.4+ to 10.7)

#### Expansion, N=41

Epcoritamab (SC)
48 mg
OW C1-2, O4W C3+
Treatment up to 2 years

Rituximab (IV) 375 mg/m<sup>2</sup> QW C1, Q4W C2-6 Lensildomide (oral) 20 mg QD for 21 d in C1-12

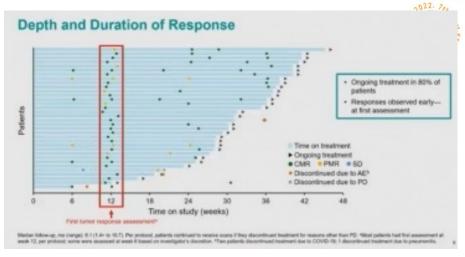
- Primary objective: Anthumor activity (CRRP and safety/folerability)
- · Key secondary endpoints: DOR

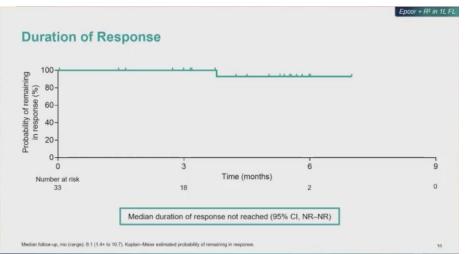
Epocritameti was administrand in 29-d cycles as shown. Dose exceletion (part of arm 2a, previously reported?) evaluated 24 and 48 mg spoortsmath = 97, in arm 2a, spoortsmath schedule was QM in C1-5, QM9 in C4-6, and QM9 in C1-5. (QM9 in C1-5. (QM9 in C4-6, and QM9 in C1-5. (QM9 in C1-5. (QM9

- Median age was 57 y (range, 39–78)
- ➤ Median time from initial diagnosis to first dose of epcoritamab was 12 wk (range, 2–352)
- > The majority (85%) had grade 2 or 3A FL
- > 39% and 51% had stage III and IV disease



#### 





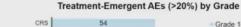
- efficacy-evaluable patients =29
- ➢ ORR 90% (26/29) with 69% (20/29) of complete metabolic response (CMR)

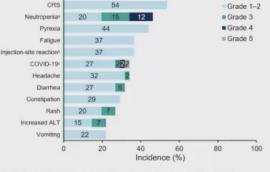
#### Epcor + R2 in 1L FL

#### Safety Profile

Patients, n (%)	Total N=41
Grade ≥3 TEAE	30 (73)
Related to epcoritamab	14 (34)
Fatal TEAE	2 (5) <sup>a</sup>
Epcoritamab dose delay due to TEAE	22 (54)
Related to epcoritamab	7 (17)
Epcoritamab discontinuation due to TEAE	4 (10)
Related to epcoritamab	3 (7)b

- · No clinical tumor lysis syndrome was
- · One patient (2%) experienced ICANS (grade 1), which resolved in 2 days





"Combined term includes neutropenia and neutrophil count decreased, "Combined term includes injection-site reaction, erythema, rash, and hypersensitivity, "Combined term includes COVID-19, COVID-19 pneumonia, and

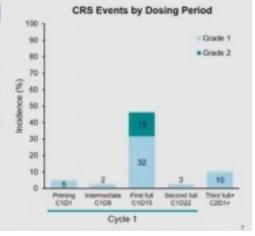
#### **CRS** Events

observed

(n=1 each).

	Total, N=41
CRS, n (%)*	22 (54)
Grade 1	16 (39)
Grade 2	6 (15)
Median time to onset after first full dose, d (range)	3 (1-6)
CRS resolution, n (%)	22 (100)
Median time to resolution, d (range)*	4 (1-10)
Treated with toolkournab, n (%)	4 (10)
Leading to treatment discontinuation, n (%)	0

- No grade ≥3 events.
- All CRS events resolved
- · Timing was predictable, with most cases occurring after the first full dose





- patients experienced treatment-emergent AE (TEAE)
- > Most CRS events occurred after the first full dose of epcoritamab, all resolved (median time to resolution, 4 d; tocilizumab given to 5 patients), and none led to treatment discontinuation.
- > 1 ICANS and no clinical tumor lysis syndrome.
- ➤ One fatal TEAE (COVID-19 pneumonia, not related to epcoritamab).



Five-Year Results and Overall Survival Update from the Phase 3 Randomized Study Augment: Lenalidomide Plus Rituximab (R2) Vs Rituximab Plus Placebo in Patients with Relapsed/Refractory Indolent Non-Hodgkin Lymphoma

john P. Leonard<sup>1</sup>, Marek Trneny, Fritz Offner, Jiri Mayer, Huilai Zhang, Grzegorz S. Nowakowski, Phillip Scheinberg, Argyrios Gkasiamis, Joanna Mikita-Geoffroy, Everton Rowe, John G. Gribben

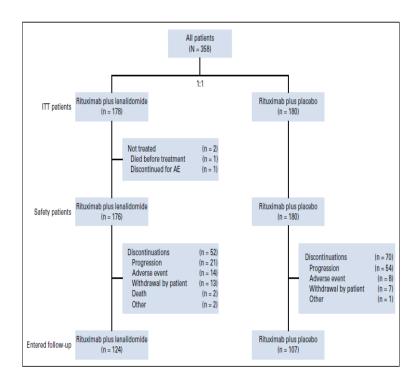
1. Weill Cornell Medicine and New York Presbyterian Hospital, New York, NY

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### AUGMENT: A Phase III Study of Lenalidomide Plus Rituximab Versus Placebo Plus Rituximab in Relapsed or Refractory Indolent Lymphoma

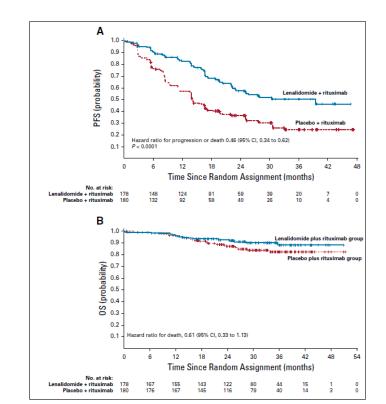
John P. Leonard, MD¹; Marek Trneny, MD²; Koji Izutsu, MD³; Nathan H. Fowler, MD⁴; Xiaonan Hong, MD⁵; Jun Zhu, PhD⁶; Huilai Zhang, MDˀ; Fritz Offner, MD, PhD⁶; Adriana Scheliga, MD⁶; Grzegorz S. Nowakowski, MD¹⁰; Antonio Pinto, MD¹¹; Francesca Re, MD¹²; Laura Maria Fogliatto, MD, PhD¹³; Phillip Scheinberg, MD¹⁴; Ian W. Filmn, MD, PhD¹⁵; Claudia Moreira, MD¹⁶; José Cabeçadas, MD¹³; David Liu, MD, PhD¹⁶; Stacey Kalambakas, MD¹⁶; Pierre Fustier, PhD¹⁰; Chengqing Wu, PhD¹⁶; and John G. Gribben, MD. DSc⁵⁰; for the AUGMENT Trial Investigators

J Clin Oncol 37:1188-1199. @ 2019



#### ➤ Median follow-up : 28.3 months





#### Baseline characteristics

R <sup>2</sup> (n = 178)	R-placebo (n = 180)	Total (N = 358)
64 (26-86)	62 (35-88)	63 (26-88)
75 (42)	97 (54)	172 (48)
65/34/1	71/28/1	68/31/1
33 (19)	31 (17)	64 (18)
72 (40)	69 (38)	141 (39)
23/77	31/69	27/73
45 (25)	49 (27)	94 (26)
83/17	82/18	82/18
29/31/39	37/32/30	33/32/34
	(n = 178) 64 (26-86) 75 (42) 65/34/1 33 (19) 72 (40) 23/77 45 (25) 83/17 29/31/39	(n = 178) (n = 180) 64 (26-86) 62 (35-88) 75 (42) 97 (54) 65/34/1 71/28/1 33 (19) 31 (17) 72 (40) 69 (38) 23/77 31/69 45 (25) 49 (27) 83/17 82/18

Table adapted by permission of Wolfers Numer from Leonard JR, et al. ALEXENT: a phase III south of breakdomide plus intuitinab versus placebo plus intuitinab in relapand or refractory indobest lymphoma. J Clin Grout 2011;13(1):188-1199. https://accepubs.org/doi/hib/10.1006.XCb.1100010.

· Baseline characteristics were generally similar between treatment arms

Full Political Languages Statement Programs, roles (section) Political Color (SER, Printle Color

Lemant JP, et al. 459 (522 (Answert 252)

- 5

#### Patient disposition (ITT population)

Disposition, n (%)	R <sup>2</sup> (n = 178)	R-placebo (n = 180)	Total (N = 358)
Patients treated, n	176	180	356
Completed treatment*	124 (70)	110 (61)	234 (66)
Discontinued treatments b	52 (30)	70 (39)	122 (34)
Discontinued study <sup>c,d</sup>	65 (37)	77 (43)	142 (40)
Withdrew consent	33 (19)	22 (12)	55 (15)
Death	27 (15)	47 (26)	74 (21)
Lost to follow-up	4 (2)	7 (4)	11 (3)
AEs	0	0	0
Other	1 (1)	1 (1)	2 (1)

At the final data cutoff (January 26, 2022), median (range) follow-up was 65.9 (0.1-95.2) months

The contage, were advanced using the unital paparation (F. + 1 Th. F planets, + 1 MD). Technical are partied who dissectioned it advanced within 12 years and executed as few their same planets, e 1 MD, The patient in the F arm not recording advanced on puly contentions.

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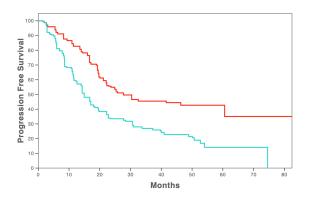
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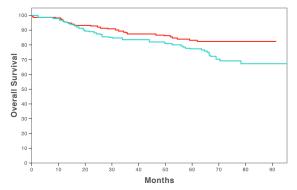


- > 358 pts were randomized (n = 178 R2; n = 180 control)
- Baseline characteristics were similar in both groups.



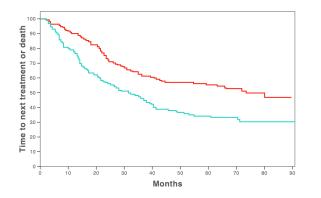


Curves	N	Median (95% CI)
Lenalidomide + Rituximab	178	27.6 (22-60.5)
Rituximab + Placebo	180	14.3 (12.4-17.7)
	HR (95%	CI)
Lenalidomide + Rituximab vs Rituximab + Placebo	0.5 (0.38 - 0.66)	



Curves	N	
Lenalidomide + Rituximab	178	
Rituximab + Placebo	180	
	HR (95% CI)	P-value

- median follow-up of 65.9 m
- ➤ Median OS was not reached for either group, there was an improvement in OS for R2



Curves	N	Median (95% CI)
Lenalidomide + Rituximab	178	73.1 (43-0)
Rituximab + Placebo	180	31.8 (22.2-39.4)
	HR (95%	CI)
Lenalidomide + Rituximab vs Rituximab +	0.53 (0.39 - 0.71)	

- > SPMs occurred in 13 (7%) R2-treated and 21 (12%) control pts
- > 9 pts died of SPM (n = 3 R2, n = 6 R-placebo)
- The incidence rate of SPMs per 100 y was 1.62 (95% CI, 0.94-2.78) in the R2 group vs 2.66 (95% CI, 1.73-4.07) in the control group.
- Fewer histological transformations occurred in the R2 arm than in the control group (n = 10 vs n = 15, respectively)

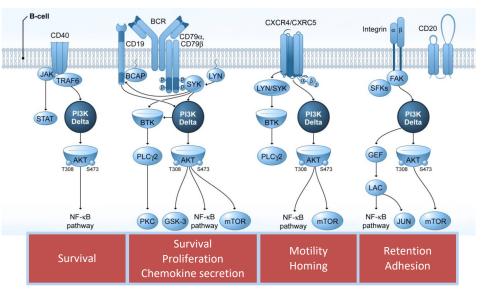


Safety and Efficacy of the PI3Kδ Inhibitor Zandelisib in Combination with the BTK Inhibitor Zanubrutinib in Patients with Relapsed/Refractory (R/R) Follicular Lymphoma (FL) or Mantle Cell Lymphoma (MCL)

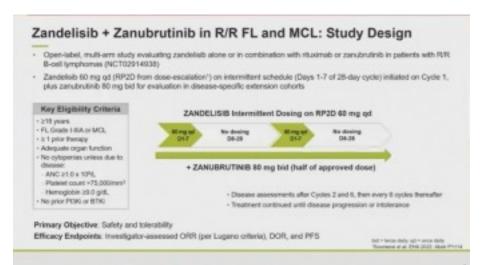
Jacob D. Soumerai, MD1, Catherine S. Diefenbach, MD, Felipe Samaniego, MD, Abhijeet Kumar, Michaela L. Tsai, Adam S. Asch, MD, Deepa Jagadeesh, MD, Vaishalee P. Kenkre, MD, Izidore S. Lossos, MD, Huda Salman, MD, PhD, Farrukh T. Awan, M.D., Lu Miao, Richard G. Ghalie, MD and Andrew D. Zelenetz, MD, PhD

1. Center for Lymphoma, Massachusetts General Hospital, Boston, MA

# PI3K inhibition impacts multiple critical pathways in B-cell malignancies



BCAP: B-cell adaptor for PI3K; BCR: B-cell receptor; BTK: Bruton's tyrosine kinase; GEF: guanine nucleotide exchange factor; mTOR: mammalian target of rapamycin; PI3K: phosphatidylinositol-3-kinase; PKC: protein kinase C; SFK: Src family kinase; SYK: spleen tyrosine kinase



- 50 pts were treated
- > 31 with FL and 19 with MCL
- Median age of 67 years (range 40-83)
- Median number of prior therapies was 2 (range 1-5)
- > 15 pts (30%) were refractory to last therapy
- > 14 pts (28%) had a lesion ≥5 cm
- 22 of 31 FL pts (71%) had POD24

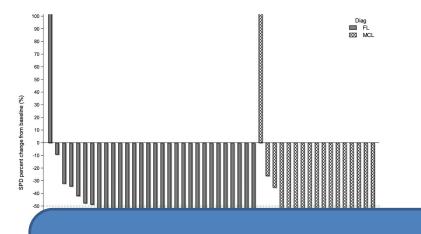


Table 1: Response Rates by Histology

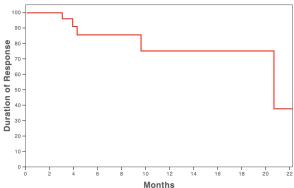
	FL (N = 31)	MCL (N = 19)
ORR, n (%, 95% CI) *	24/30 (80%, 61.4-92.3)	13/17 (76%, 50.1-93.2)
CRR. n (%, 95% CI) *	6/30 (20%, 7.8-38.6)	6/17 (35%, 14.2-61.7)

<sup>\*3</sup> pts were not evaluable for response: 1 FL pt discontinued in cycle 1 due to a DRESS syndrome and 2 ongoing MCL pts have not yet reached the end of cycle 2 disease assessment

Figure 1: Maximum Change in SPD from Baseline

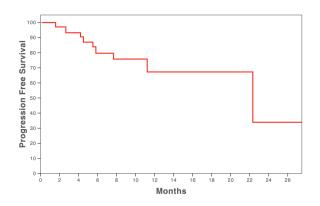


- > Zandelisib plus zanubrutinib was well tolerated with no increase in the rate or severity of classrelated AEs compared to either agent alone.
- > Few pts (4%) have discontinued due to an AE.



ı			

Curves	N	Median (95% CI)
Zanubrutinib	26	20.6 (9.6-0)



Curves	N	Median (95% CI)
Zanubrutinib	31	22.4 (11.4-0)

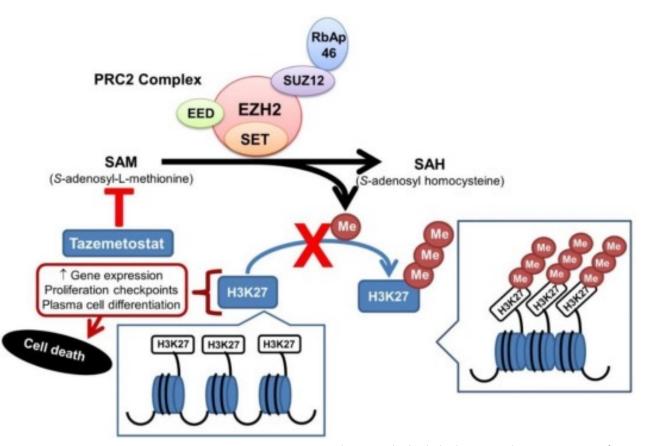


# Tazemetostat in Combination with Lenalidomide and Rituximab in Patients with Relapsed/Refractory Follicular Lymphoma: Phase 1b Results of Symphony-1

Connie Lee Batlevi<sup>1</sup>, Gilles Salles, Steven I. Park, Tycel J. Phillips, Jennifer E. Amengual, David Andorsky, Philip Campbell, Pamela McKay, John P. Leonard, Manu Sondhi, Yingxue Chen, Pamela L. Slatcher, Richard Lin, Attila Szanto, Sara Abbadi, Franck Morschhauser

1. Lymphoma Service, Cellular Therapy Service, Department of Medicine, Memorial Sloan Kettering Cancer Center, NEW YORK, NY

## **EZH2** inhibition

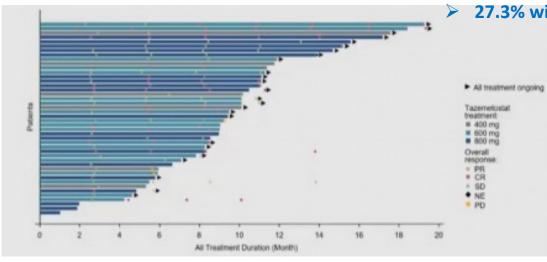


Christian MichaelHedrich. Chapter 21 - Pharmacoepigenetics of Systemic Lupus Erythematosus. Pharmacoepigenetics. Volume 10 in Translational Epigenetics. 2019, Pages 597-608

#### Results – patient characteristics and baseline demographics

Parameter	TAZ + R <sup>2</sup> (N=44)	Parameter	
Age (range), median, years	67 (38-83)	Time from last therapy (range), median, months	15.7* (0.6-193.6)
Male, n (%)	26 (59.1)	Prior lines of systemic anticancer therapy,5 n (%)	
Age a65 years, n (%)	26 (59.1)	1	30 (98.2)
ECOG P8. n (%)		2	7 (15.9)
0	33 (75.0)	3	2 (4.5)
1	11 (25.0)	4	5 (11.4)
Grade at diagnosis, n (%)		Median (range)	1 (1-4)
1	11 (25.0)	Prior classes of treatment, ir (%)	
2	20 (45.5)	Prior anti-CD20 antibody + chereotherapy <sup>()</sup>	33 (75)
36	12 (27.3)	Prior anti-CD20 antibody as only therapy	11 (25)
Unknown/not reported	1 (2.3)	Refractory to rituximatif at baseline, n (%)	15 (34.1)
LDH-ULN, n (%)	7 (15.9)	P0024, n (%)	12 (27.3)
B symptoms, n (%)	6 (13.6)	MT 62H2; n (%)	7/42+(16.7)
Transformed from DLBCL to FL	4 (9.1)	WT EZH2, n (%)	35/42*(83.3)

tale not evaluable for one patient. Mounteer patients received illustrate represents which was not counted as a requirable of freedomini. Wo bendamentine, MO-O-O-Council Serger, We response to eith description of the property of



- 44 patients were enrolled and receiving TAZ R2 (400 [n=6], 600 [n=19], and 800 mg [n=19]).
- Median age was 67 years
- ➤ 31.8% of patients had received >1 prior therapy
- > 35/42 patients (83.3%) had wild-type (WT) EZH2 FL
- 34.1% with rituximab-refractory disease
- 27.3% with POD24 disease

Of 41 patients evaluable: 21 (51.2%) had a complete response, 19 (46.3%) had a partial response, and 1 (2.4%) had stable disease.

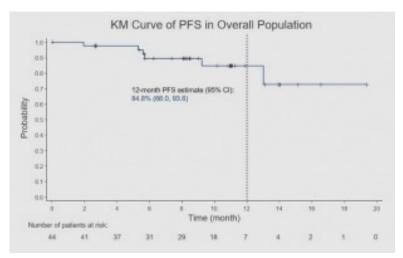
#### Results – efficacy by mutation status

Best Overall Response,* % (n)	WT (n=33)	MT (m=7) 100 (7)	
ORR	97.0 (32)		
Complete response	45.5 (15)	71.4 (5)	
Partial response	51.5 (17)	28.6 (2)	
Stable disease	3.0 (1)	0	

- ORR was 97.0% in patients with WT EZH2 (n=32).
- ORR was 100% in patients with MT EZH2 (n=7)
- · mPFS and mDOR were not reached

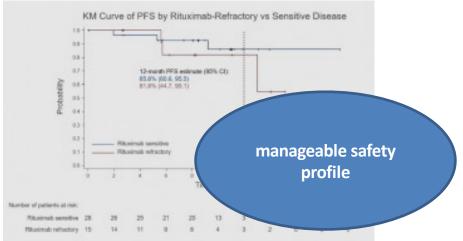
NEXT status for 1 patient with tean overall supposes was unknown.

15th Staglard Milest: 9000PC mediciny disorders of registers in NPTS, mileston progression-free summod. MT. multimit, NS. mill evaluation. CRM. objective response sales, PT. mild thyse.





Durable responses were seen in patients with high-risk disease, including those with rituximab-refractory and POD24 disease.

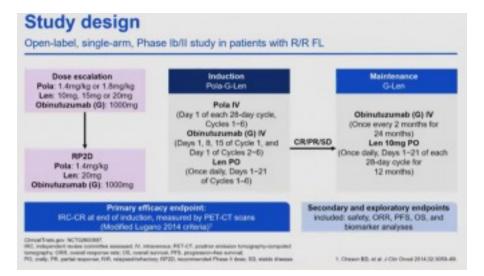




# A Phase Ib/II Study of Polatuzumab Vedotin Plus Obinutuzumab and Lenalidomide in Patients with Relapsed/Refractory Follicular Lymphoma: Final Analysis and Progression-Free Survival Update

Catherine S. Diefenbach<sup>1</sup>, Brad S. Kahl, Lalita Banerjee, Andrew K. McMillan, Fiona Miall, Javier Briones, Raul Cordoba, John M. Burke, Jamie Hirata, Sunil Sharma, Lisa Musick, Pau Abrisqueta Costa

1. Perlmutter Cancer Center at NYU Langone Health, New York, NY



- Median age, 62 years
- Male 59%
- Ann Arbor Stage III-IV, 88%
- Follicular Lymphoma International Prognostic Index 1 high-risk (≥3), 55%
- Bulky disease (≥7cm), 16%
- Median prior lines of treatment, 3 (range: 1-7); ≥2 prior lines of therapy, 77%
- Refractory to last line of prior regimen, 59% (Refractory to last line of anti-CD20 treatment, 55%)
- POD24 (defined as disease progression within 24 months of initiation of first anti-lymphoma treatment with chemoimmunotherapy), 27%

#### Efficacy

#### EOI response analysis

EOI response, n (%)	Efficacy-evaluable population (N=46)			
	Modified Lugano 2014**		Lugano 2014	
	INV	IRC	INV	IRC
Objective response	38 (83)	35 (76)	38 (83)	35 (76)
Complete response	28 (61)*	28 (61)*	34 (74)	33 (72)
Partial response	10 (22)	7 (15)	4 (9)	2 (4)
Stable disease	3 (7)	4 (9)	3 (7)	4 (9)
Disease progression	2 (4)	1(2)	2 (4)	1 (2)
Missing/not evaluable/not available	3 (7)	6 (13)4	3 (7)	6 (13)

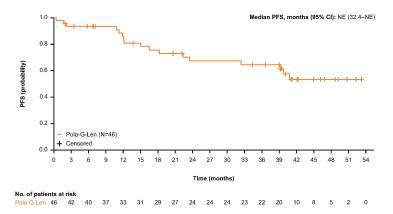
Circuit out off date March 53, 2022.

\*Modified countries requires a recognition force reservoir tecture yill contribute PTL-CR and PTL-PR. USB documentated to PPL-plus in recognition to execute because in a fundament by plus. There preserved interest because in the desirents by plus the of posterests by plus in a fundament by plus in the particular state or appropriate conducting by plus and PSCL but the particular state or appropriate conducting by plus and PSCL but the particular state or appropriate conduction or accordance to the particular and accordance to the particular and or accordance to the particular and accordance to

1. Cheson BO, et al. J Clin Oncel 2014;32:5659-68.

#### Figure. Investigator-assessed PFS

EDI, and of induction; REV, investigator assessed



CI, confidence interval; NE, not estimable; No., number; PFS, progression-free survival; Pola-G-Len, polatuzumab vedotin plus obinutuzumab and lenalidomide



- High CR rates in a heavily pre-treated and refractory population
- median PFS and OS were not reached
- more than half of the patients treated with Pola-G-Len had not experienced disease progression after 4 years



# Long-Term Efficacy and Safety of Zanubrutinib in Patients with Relapsed/Refractory (R/R) Marginal Zone Lymphoma (MZL): Final Analysis of the Magnolia (BGB-3111-214) Trial

Stephen Opat¹, Alessandra Tedeschi, Bei Hu, Kim M. Linton, Pamela McKay, Henry Chan, Jie Jin, Mingyuan Sun, Magdalena Sobieraj-Teague, Pier Luigi Zinzani, Peter J. Browett, Xiaoyan Ke, Craig A. Portell, Catherine Thieblemont, Kirit Ardeshna, Fontanet Bijou, Patricia Walker, Eliza Hawkes, Shir-Jing Ho, Keshu Zhou, Zhiyu Liang, Jianfeng Xu, Chris Tankersley, Richard Delarue, Melannie Co, Judith Trotman

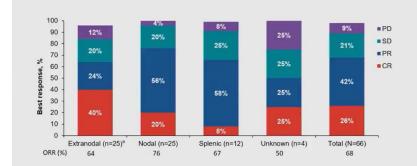
1. Monash Health and Monash University, Clayton, Victoria, Australia

R/R MZL (N=68) <sup>a</sup>
36 (52.9)
63 (92.7)
29 (42.6)
53 (77.9)
59 (86.8)



- > 68 pts were enrolled
- The median age was 70 years
- MZL subtypes included extranodal (mucosaassociated lymphoid tissue) in 38.2%, nodal in 38.2%, splenic in 17.6%, and unknown in 5.9% of pts.
- Median number of prior therapies was 2 (range 1-6)
- > 32.4% of pts had disease refractory to last therapy
- Most (89.7%) pts received prior chemoimmunotherapy
- > 7 (10.3%) received rituximab monotherapy as their only prior treatment

#### Best Overall Response by IRC and MZL Subtypes

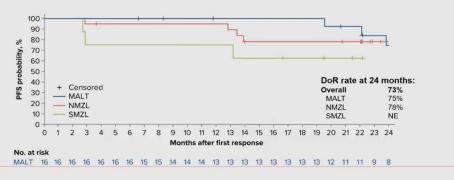


\*One patient (extranodal MZL) who withdrew consent prior to the first disease assessment was not shown in the graph



American Society of Hematology

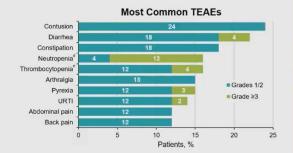
#### DOR by MZL Subtypes by IRC Assessment



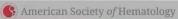
#### **TEAEs in All Patients**

#### Safety Summary

TEAEs, n (%)	N=68
Patients with ≥1 TEAE	68 (100)
Grade ≥3 TEAE	33 (48)
Serious TEAE	30 (44)
Leading to death	5 (7)a
Leading to dose interruption	25 (37)b
Leading to study drug discontinuation	5 (7)c
Leading to dose reduction	0



\*Five patients died owing to AEs: COVID-19 pneumonia (n=2); myocardial infarction in a patient with processing cardiovascular disease (n=1); acute myeloid fluckemia in a patient with prior exposure to an alkylating agent (n=1); explication of processing patient of the processing patient patien





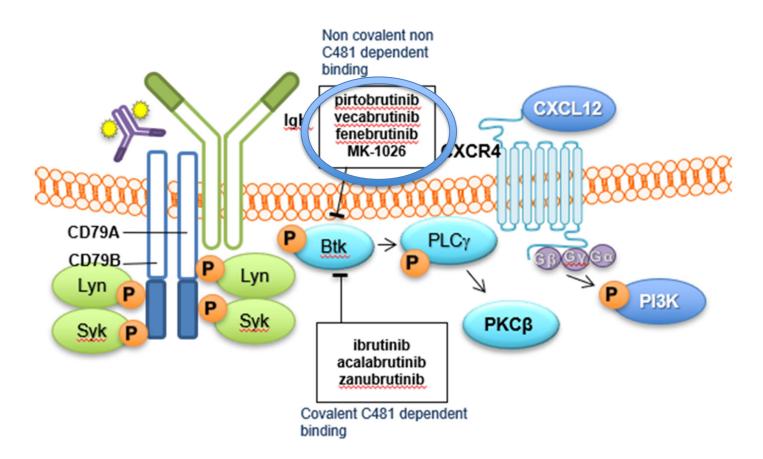
- High response rates and durable disease control
- well tolerated, with no new safety signals



# Efficacy of Pirtobrutinib, a Highly Selective, Non-Covalent (Reversible) BTK Inhibitor in Relapsed / Refractory Waldenström Macroglobulinemia: Results from the Phase 1/2 BRUIN Study

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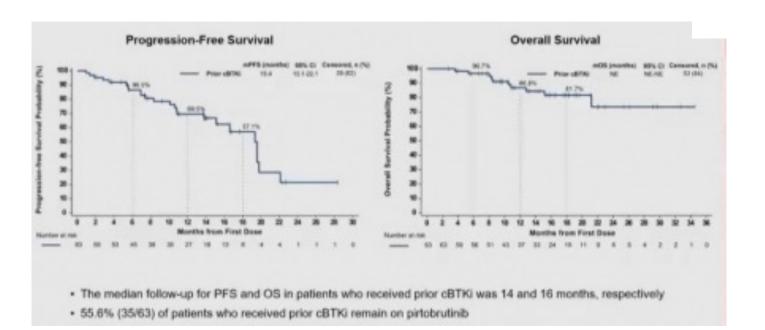
Lewis KL, Cheah CY. Non-Covalent BTK Inhibitors-The New BTKids on the Block for B-Cell Malignancies. J Pers Med. 2021 Aug 3;11(8):764.





- ➤ Median age was 68 (range, 42-84) years
- Median number of prior therapies was 3 (range, 1-11).
- ▶ 66 (85%) pts had received chemotherapy+ anti-CD20 antibody
- 61 (78%) pts had received ≥1 prior BTKi
   (≥2 BTKi in 13/61, 21%)
- ➤ 40 (66%) discontinued prior BTKi therapy due to disease progression
- ➤ 50 (64%) pts had received chemotherapy + anti-CD20 antibody + BTKi





➤ Pirtobrutinib was well-tolerated with low-rates of discontinuation due to drug-related toxicity.





- ASH 2022 confirmed the strong shift toward chemo-free treatments in indolent lymphoma.
- Several different approaches proved effective, crowding the therapeutic armamentarium especially in R/R disease.
- ➤ Apart for efficacy, growing importance will be acquired by:
  - Safety profile
  - Duration of treatment
  - Costs and complexity
  - Patient choice

