

# Lymphom Kompetenz KOMPAKT



**61. ASH Annual Meeting**  
**7. – 10. Dezember 2019**



**KML-Experten berichten vom ASH 2019 aus Orlando**



# Prof. Dr. med. Christian Buske

## Indolente Lymphome

Direktor, CCC Ulm - Institut für Experimentelle Tumorforschung,  
Universitätsklinikum Ulm | Präsident der German Lymphoma  
Alliance e.V. | Vorstandsmitglied im KML

# Offenlegung potentieller Interessenskonflikte

LymphomKompetenz KOMPAKT – ASH2019 wird in Kooperation mit vier unterstützenden Firmen durchgeführt. Diese Firmen haben keinen Einfluss auf die Inhalte dieses Vortrags. Meine weiteren Disclosures betreffen:

Anstellungsverhältnis, Führungsposition	--
Beratungs-/ Gutachtertätigkeit	Roche, AbbVie, Janssen, Celltrion, Hexal
Besitz von Geschäftsanteilen, Aktien oder Fonds	--
Patent, Urheberrecht, Verkaufslizenz	--
Honorare	Roche, Pfizer, AbbVie, Janssen
Finanzierung wissenschaftlicher Untersuchungen	Roche, Janssen, Bayer, MSD
Andere finanzielle Beziehungen	--
Immaterielle Interessenskonflikte	

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# Kapitel 1

## Indolente Lymphome Follikuläres Lymphom (FL)

*Ist IFRT ausreichend um MRD-Negativität beim lokalisierten FL zu erreichen?*

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#124

## EARLY STAGE FOLLICULAR LYMPHOMA: FIRST RESULTS OF THE FIL “MIRO” STUDY, A MULTICENTER PHASE II TRIAL COMBINING LOCAL RADIOTHERAPY AND MRD-DRIVEN IMMUNOTHERAPY

Saturday, December 7, 2019: 10:00 AM

Hall E2, Level 2 (Orange County Convention Center)

*Alessandro Pulsoni, MD<sup>1\*</sup>, Maria Elena Tosti, Statistician, Simone Ferrero, MD<sup>3</sup>,  
Stefano Luminari, MD<sup>4</sup>, Anna Marina Liberati<sup>5\*</sup> et al.*

<sup>1</sup>*Hematology Section, Department of Translational and Precision Medicine,  
Sapienza University of Rome, Italy, Rome, Italy*

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## Kapitel 2

# Indolente Lymphome Follikuläres Lymphom (FL)

*Ist der neue Ansatz der Blockade der EZH2 Mutation beim FL erfolgversprechend?*

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## PHASE 2 MULTICENTER STUDY OF TAZEMETOSTAT, AN EZH2 INHIBITOR, IN PATIENTS WITH RELAPSED OR REFRACTORY FOLLICULAR LYMPHOMA

Saturday, December 7, 2019: 10:00 AM

Hall E2, Level 2 (Orange County Convention Center)

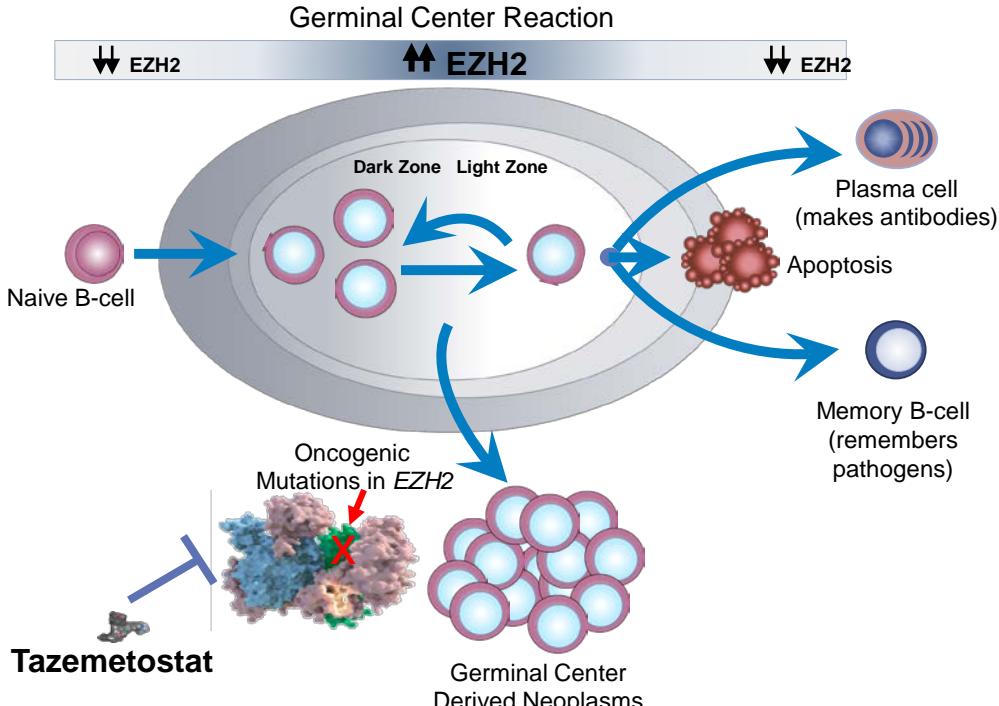
*Franck Morschhauser, MD, PhD<sup>1\*</sup>, Herve Tilly, MD, PhD<sup>2</sup>, Aristeidis Chaidos<sup>3\*</sup>, Tycel J. Phillips, MD<sup>4</sup>, Vincent Ribrag, MD<sup>5</sup>, Philip Campbell, MBBS, FRACP, FRCPA<sup>6</sup>, Damaj Gandhi Laurent, MD, PhD<sup>7\*</sup>, Wojciech Jurczak, MD, PhD<sup>8</sup>, Pamela McKay, MD<sup>9\*</sup>, Stephen Opat<sup>10\*</sup>, John Radford<sup>11\*</sup>, Jennifer Whalen<sup>12\*</sup>, Anand Rajarethinam<sup>12\*</sup>, Susan Benedict Navia<sup>13\*</sup>, Deyaa Adib<sup>14\*</sup> and Gilles A. Salles, MD, PhD<sup>15</sup>*

<sup>1</sup>*Department of Hematology, CHRU Lille, Lille, France*

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## Follicular Lymphoma and EZH2

- EZH2 is an epigenetic regulator of gene expression and cell fate decisions<sup>1</sup>
- EZH2 is required for normal B-cell biology and germinal center formation<sup>2</sup>
  - Oncogenic mutations in EZH2 suppress exit from germinal state and “lock” B cells in this state, thereby transforming into a cancer<sup>2</sup>
- EZH2 biology relevant in both mutant (MT) and wild-type (WT) EZH2 FL
  - ~20% of patients with FL have EZH2 gain of function mutations<sup>3</sup>



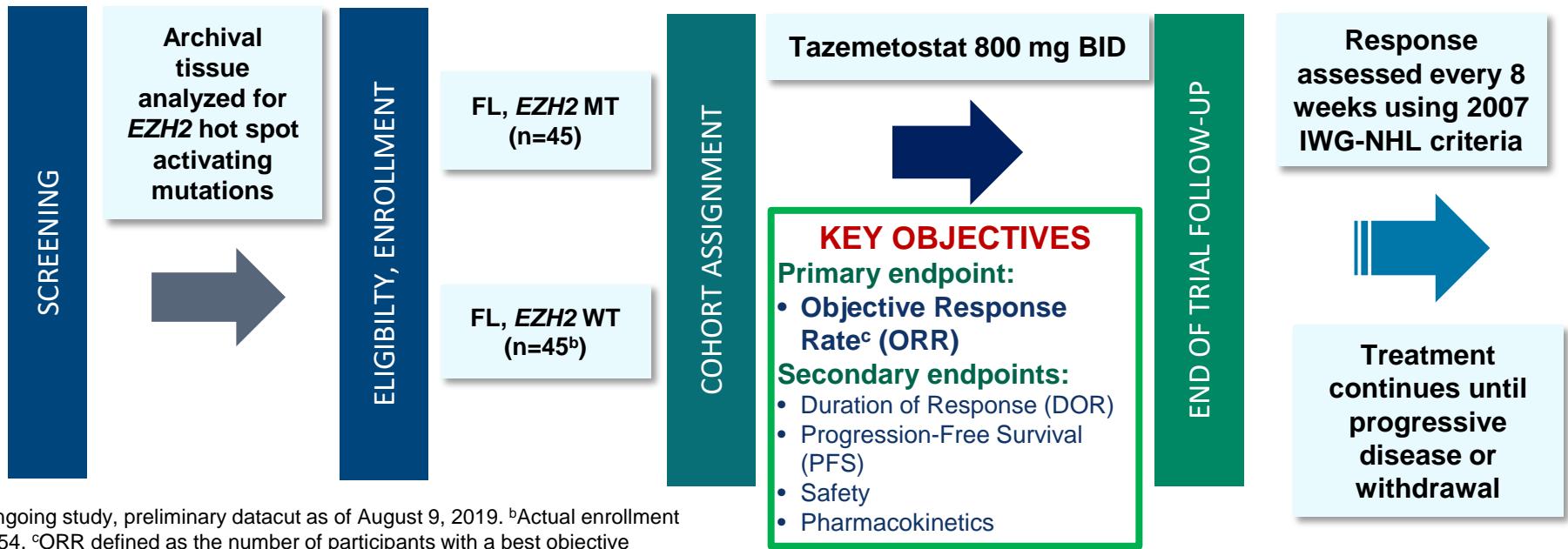
**Tazemetostat, an investigational, first-in-class, selective, oral inhibitor of EZH2 has shown antitumor activity in non-Hodgkin's lymphoma patients with either MT or WT EZH2<sup>4,5</sup>**

1. Gan L, et al. *Biomark Res.* 2018;6(1):10; 2. Béguin 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 Oncol.* 2017;35:24-5. EZH2, enhancer of zeste homolog 2; FL, follicular lymphoma.

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## ► Phase 2, Open-Label, Multicenter Study of Tazemetostat

- Enrollment initiated July 2015; last data cut for efficacy August 9, 2019<sup>a</sup>; for safety, May 24, 2019
- Conducted at 56 sites across North America, Europe, Asia, and Australia



<sup>a</sup>Ongoing study, preliminary data cut as of August 9, 2019. <sup>b</sup>Actual enrollment N=54. <sup>c</sup>ORR defined as the number of participants with a best objective response of complete response or partial response.

BID, twice-daily; EOT, end of treatment; FL, follicular lymphoma; IWG-NHL, International Working Group for non-Hodgkin's lymphoma; MT, mutant; WT, wild-type.

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## Tazemetostat is Well Tolerated in FL Patients Adverse Events in ≥10% Patients<sup>a</sup>

Category, n (%)	All TEAEs (N=99)		Treatment-related TEAEs (N=99)	
	All Grades <sup>b</sup>	Grade ≥3	All Grades	Grade ≥3
Nausea	23 (23)	0 (0)	19 (19)	0 (0)
Asthenia	19 (19)	3 (3)	15 (15)	1 (1)
Diarrhea	18 (18)	0 (0)	12 (12)	0 (0)
Fatigue	17 (17)	2 (2)	12 (12)	1 (1)
Alopecia	17 (17)	0 (0)	14 (14)	0 (0)
Cough	16 (16)	0 (0)	2 (2)	0 (0)
Upper respiratory tract infection	15 (15)	0 (0)	1 (1)	0 (0)
Bronchitis	15 (15)	0 (0)	3 (3)	0 (0)
Anemia	14 (14)	5 (5)	9 (9)	2 (2)
Abdominal pain	13 (13)	1 (1)	2 (2)	0 (0)
Headache	12 (12)	0 (0)	5 (5)	0 (0)
Vomiting	12 (12)	1 (1)	6 (6)	0 (0)
Back pain	11 (11)	0 (0)	0 (0)	0 (0)
Pyrexia	10 (10)	0 (0)	2 (2)	0 (0)
Thrombocytopenia	10 (10)	5 (5)	8 (8)	3 (3)

- Treatment with tazemetostat was generally well tolerated
  - 8% of patients discontinued treatment due to TEAEs
  - 9% of patients had a dose reduction due to TEAEs
  - 27% of patients had a dose interruption due to TEAEs
  - Low rate of grade ≥3 treatment-related TEAEs
- There were no treatment-related deaths

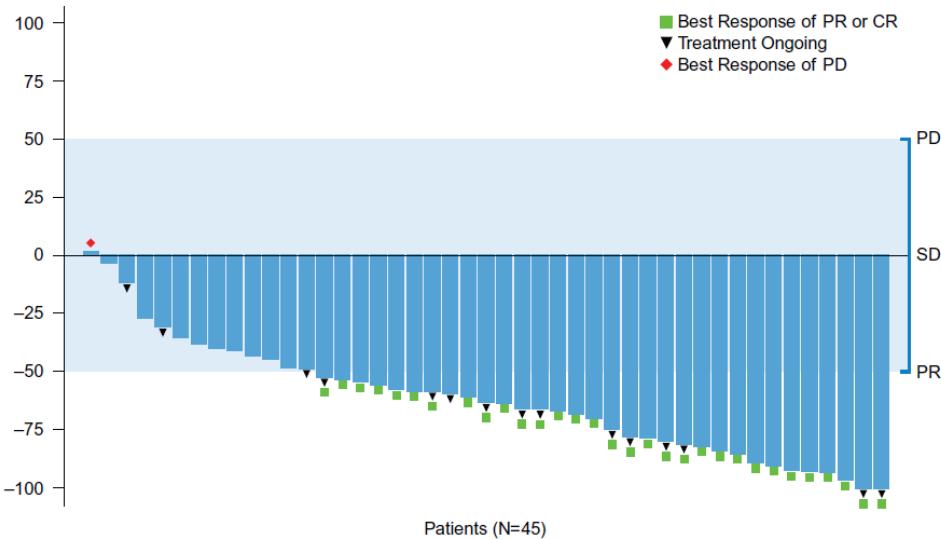
<sup>a</sup>As of May 24, 2019; <sup>b</sup>All grade TEAEs reported as occurring in ≥10% of patients.

MT, mutant; TEAEs, treatment-emergent adverse events; WT, wild-type.

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## ► Response in the MT EZH2 Cohort

Parameter	MT EZH2 (n=45)	
	Investigator	IRC
Objective response rate, n (%)	35 (78)	31 (69)
95% CI <sup>a</sup>	62.9–88.8	53.4–81.8
Complete response, n (%)	4 (9)	6 (13)
Partial response, n (%)	31 (69)	25 (56)
Stable disease, n (%)	10 (22)	13 (29)
Progressive disease, n (%)	0	1 (2) <sup>c</sup>



- 44 of 45<sup>b</sup> (98%) patients with evidence of tumor reduction by IRC

<sup>a</sup>By Brookmeyer and Crowley method; <sup>b</sup>Best overall response based on Cheson (2007) criteria for lymphomas.

### High Concordance Between IRC and Investigator Assessed Response

CI, confidence interval; DOR, duration of response; IRC, independent radiology committee; ITT, intent-to-treat; ORR, objective response rate; MT, mutant; NE, non-evaluable; WT, wild-type.

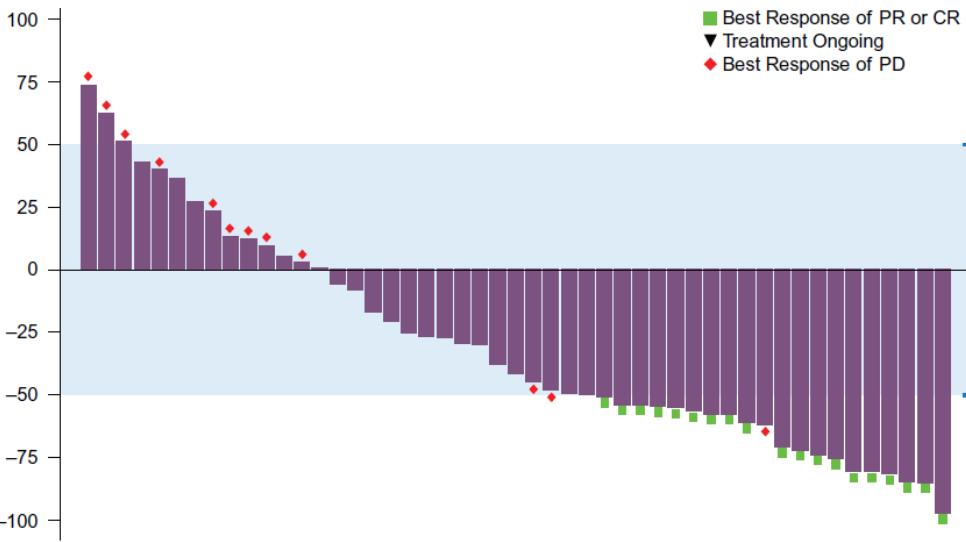
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# Indolente NHL

## ► Responses in the WT EZH2 Cohort

Parameter	WT EZH2 (n=54)	
	Investigator	IRC
Objective response rate, n (%)	18 (33)	19 (35)
95% CI <sup>a</sup>	21.1–47.5	22.7–49.4
Complete response, n (%)	3 (6)	2 (4)
Partial response, n (%)	15 (28)	17 (31)
Stable disease, n (%)	16 (30)	18 (33)
Progressive disease, n (%)	16 (30)	12 (22)
NE, missing, or unknown, <sup>b</sup> n (%)	4 (7)	5 (9)

**High Concordance Between  
IRC and Investigator Assessed Response**



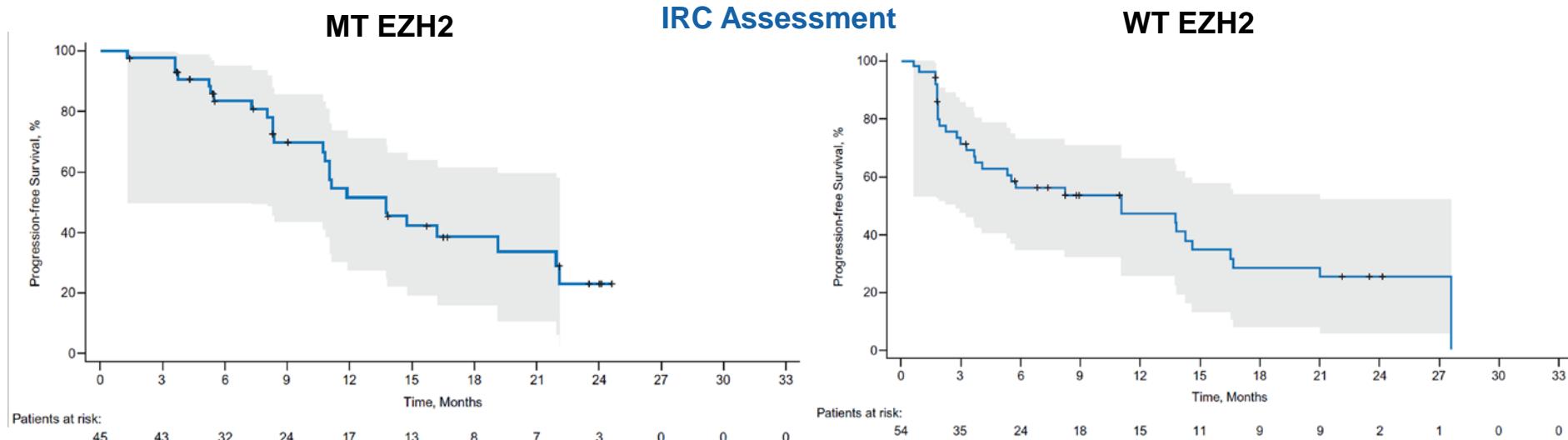
- 35 of 49<sup>c</sup> (71%) patients with evidence of tumor reduction by IRC

<sup>a</sup>By Brookmeyer and Crowley method. <sup>b</sup>4 subjects with missing post-baseline values and 1 subject with poor image <sup>c</sup>Best overall response based on Cheson (2007) criteria for lymphomas.

CI, confidence interval; DOR, duration of response; IRC, independent radiology committee; ITT, intent-to-treat; ORR, objective response rate; MT, mutant; NE, non-evaluable; WT, wild-type.

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## ► Median PFS of 13.8 and 11.1 months was Observed in MT and WT EZH2 Cohorts



Endpoint	MT EZH2 Investigator (n=45)	MT EZH2 IRC (n=45)	WT EZH2 Investigator (n=54)	WT EZH2 IRC (n=54)
Median (95% CI) PFS, months,	13.8 (8.4, 16.4)	13.8 (10.7, 22.0)	5.6 (3.3, 11.1)	11.1 (3.7, 14.6)
K-M estimate of PFS (95% CI) at 6 months, %	83.3 (68.0, 91.7)	83.6 (68.6, 91.8)	46.4 (32.2, 59.4)	55.9 (40.7, 68.7)
K-M estimate of PFS (95% CI) at 12 months, %	53.2 (36.2, 67.6)	51.7 (34.4, 66.6)	35.8 (22.8, 49.0)	47.1 (31.6, 61.1)
K-M estimate of PFS (95% CI) at 18 months, %	31.0 (16.4, 46.8)	38.8 (22.7, 54.7)	22.5 (11.8, 35.)	28.3 (14.8, 43.4)

+, censored; CI, confidence interval; IRC, independent radiology committee; ITT, intent-to-treat; MT, mutant; NE, non-estimable; PFS, progression-free survival; WT, wild-type.

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## ► Treatment with Tazemetostat Demonstrated Clinical Activity in High-Risk Subgroups IRC Assessment

Parameter	MT EZH2			WT EZH2		
	Refractory to rituximab (n=22)	POD24 (n=19)	Refractory to prior treatment (n=33)	Refractory to rituximab (n=32)	POD24 (n=32)	Refractory to prior treatment (n=42)
<b>Objective response rate, n (%)</b>	<b>13 (59)</b>	<b>12 (63)</b>	<b>21 (64)</b>	<b>10 (31)</b>	<b>8 (25)</b>	<b>12 (29)</b>
95% CI <sup>a</sup>	36.4–79.3	38.4–83.7	45.1–79.6	16.1–50.0	11.5–43.4	15.7–44.6
Complete response, n (%)	2 (9)	2 (11)	5 (15)	1 (3)	1 (3)	1 (2)
Partial response, n (%)	11 (50)	10 (53)	16 (49)	9 (28)	7 (22)	11 (26)
Stable disease, n (%)	8 (36)	7 (37)	11 (33)	8 (25)	11 (34)	13 (31)
Progressive disease, n (%)	1 (5)	0	1 (3)	10 (31)	9 (28)	12 (29)
NE, missing, or unknown, n (%)	0	0	0	4 (13)	4 (13)	5 (12)
Median DOR (95% CI), months	7.3 (2.9–12.0)	6.6 (2.1– NE)	8.3 (3.7–NE)	7.4 (1.0–NE)	13.0 (0.5–NE)	7.4 (3.4–19.3)

CI, confidence interval; CR, complete response; IRC, independent radiology committee; MT, mutant; NE, non-evaluable; POD24, progression of disease within 24 months of prior therapy; WT, wild-type.

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## ► Summary

Tazemetostat, an investigational EZH2 inhibitor, demonstrated single agent, antitumor activity in patients with relapsed/refractory follicular lymphoma, with data from IRC indicating

- An ORR of 69% and 35% in MT and WT EZH2 cohorts, respectively
- Durable clinical activity across both MT and WT EZH2 cohorts, with patients on therapy up to 24 months, and responses continuing to deepen over time.
- A median PFS of 13.8 and 11.1 months in MT and WT EZH2 cohorts, respectively

Clinically meaningful responses were observed in high-risk subgroups particularly in MT EZH2 cohort

Tazemetostat was associated with a low frequency of treatment-related grade  $\geq 3$  TEAEs, and a low frequency of dose reduction or discontinuation due to AEs

Tazemetostat represents a potential therapeutic option for patients with relapsed/refractory follicular lymphoma

AE, adverse event; DOR, duration of response; FL, follicular lymphoma; IRC, independent radiology committee; MT, mutant; ORR, objective response rate; PFS, progression-free survival; POD24, progression of disease within 24 months of prior therapy; TEAE, treatment emergent adverse event; WT, wild-type

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## Kapitel 3

# Indolente Lymphome Follikuläres Lymphom (FL)

*Können auch ältere Patienten mit FL von der Kombination Rituximab/Lenalidomid profitieren?*

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## SUBGROUP ANALYSES OF ELDERLY PATIENTS AGED $\geq 70$ YEARS IN AUGMENT: A PHASE III RANDOMIZED STUDY OF LENALIDOMIDE PLUS RITUXIMAB (R2) VS RITUXIMAB PLUS PLACEBO (R-PLACEBO) IN PATIENTS WITH RELAPSED/REFRACTORY (R/R) INDOLENT NON-HODGKIN LYMPHOMA (INHL)

Sunday, December 8, 2019: 8:30 AM

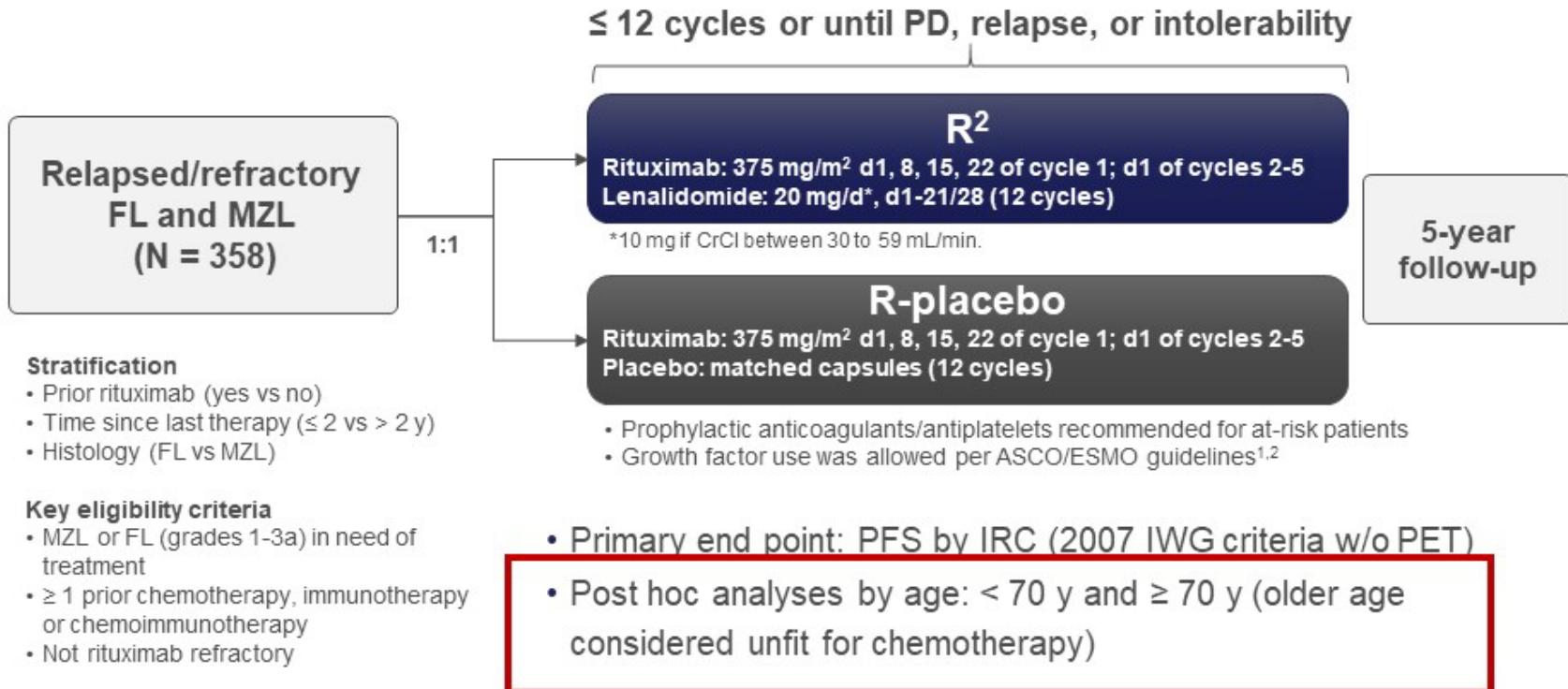
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**Marek Trněný, MD<sup>1</sup>, John P. Leonard, MD<sup>2</sup>, Huilai Zhang<sup>3\*</sup>, Grzegorz Nowakowski, MD<sup>4</sup>, Koji Izutsu, MD, PhD<sup>5\*</sup>, Nathan H. Fowler, MD<sup>6</sup>, Catherine Thieblemont, MD PhD<sup>7</sup>, Pier Luigi Zinzani, MD, PhD<sup>8</sup>, Stacey Kalambakas, MD<sup>9\*</sup>, Myron Czuczman<sup>9\*</sup>, Pierre Fustier, PhD<sup>10\*</sup>, Chengqing Wu, PhD<sup>9\*</sup> and John G. Gribben, MD, DSc<sup>11</sup>**

<sup>1</sup>Charles University General Hospital, Prague, Czech Republic

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## STUDY DESIGN: RANDOMIZED DOUBLE-BLIND PHASE III TRIAL



NCT01938001, EudraCT 2013-001245-14.

ASCO, American Society of Clinical Oncology; d, day; ESMO, European Society for Medical Oncology; FL, follicular lymphoma; IRC, independent review committee; IWG, International Working Group; MZL, marginal zone lymphoma; PD, progressive disease; PET, positron emission tomography; PFS, progression-free survival; R<sup>2</sup>, lenalidomide plus rituximab; R-placebo, rituximab plus placebo.

1. Crawford et al. Ann Oncol. 2010;21(suppl 5):248-251. 2. Smith et al. J Clin Oncol. 2015;33:3199-3212.

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## TREATMENT ADMINISTRATION AND MODIFICATIONS (SAFETY POPULATION)

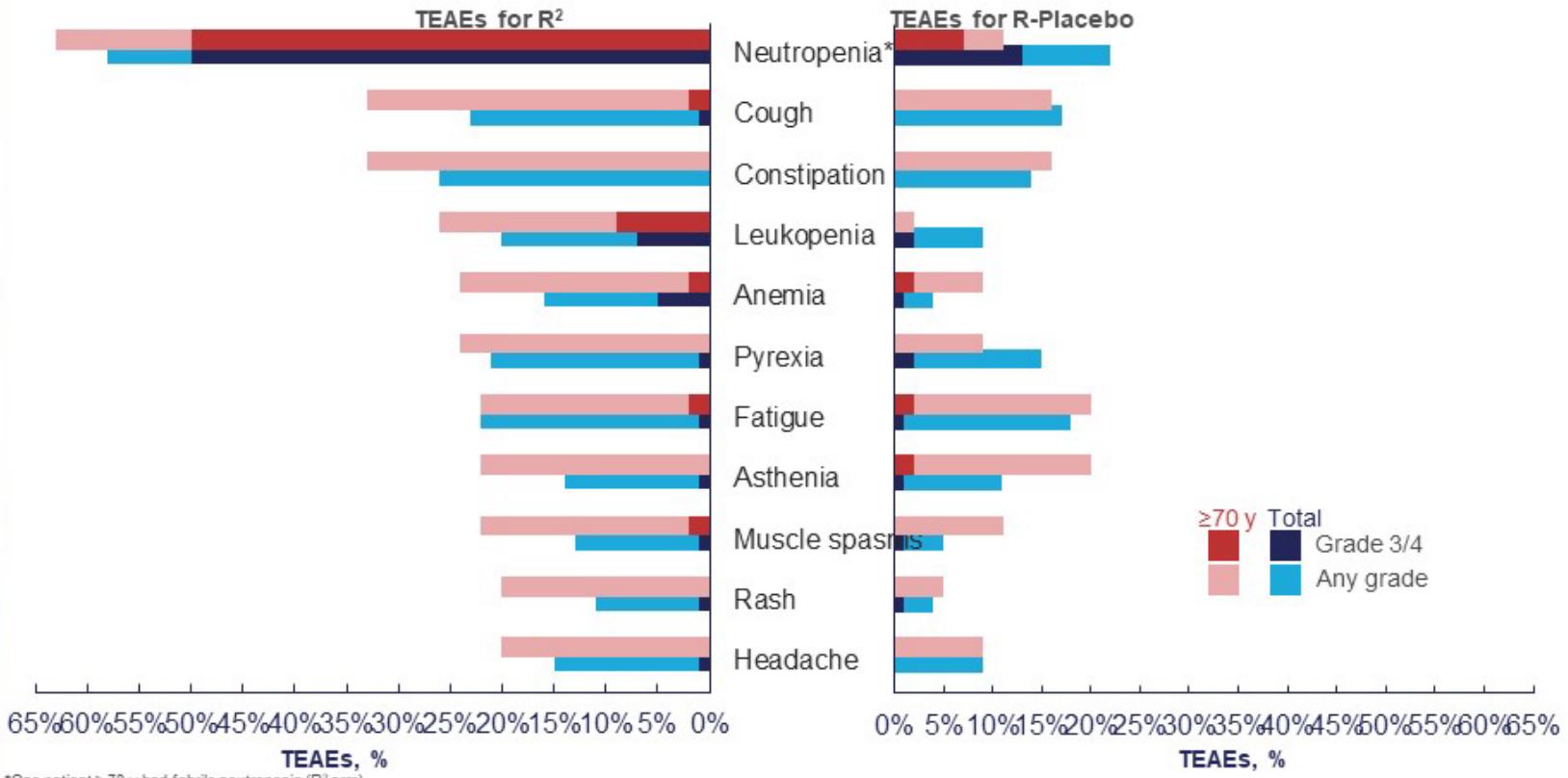
Treatment administration	$\geq 70$ y		Total	
	R <sup>2</sup> (n = 46)	R-Placebo (n = 44)	R <sup>2</sup> (n = 176)	R-Placebo (n = 180)
Completed 12 cycles of lenalidomide/placebo, n (%)	26 (57)	29 (66)	125 (71)	111 (62)
Median no. of cycles of lenalidomide/placebo (min, max)	12 (1, 12)	12 (2, 12)	12 (1, 12)	12 (1,12)
Patients with lenalidomide/placebo dose modifications due to TEAE, n (%)	R <sup>2</sup> (n = 46)	R-Placebo (n = 44)	R <sup>2</sup> (n = 176)	R-Placebo (n = 180)
Dose reduction	16 (35)	1 (2)	63 (35)	13 (7)
Dose interruption	32 (70)	9 (20)	116 (66)	53 (29)
Discontinuation	9 (20)	5 (11)	15 (9)	9 (5)

- In the R<sup>2</sup> arm, the median number of treatment cycles was 12 for both  $\geq 70$  y subgroup and the total population; however:
  - Fewer patients aged  $\geq 70$  y completed 12 cycles of lenalidomide (57% vs 71%)
  - More patients aged  $\geq 70$  y started lenalidomide at the lower dose of 10 mg (35% vs 14%) because of low creatinine clearance
- In the R<sup>2</sup>  $\geq 70$  y subgroup vs total population, the average daily dose of lenalidomide was 14.4 mg/d (SD, 5.4) vs 17.0 mg/d (SD, 4.2), and median relative dose intensity was 86% vs 95%, respectively

Data cutoff June 22, 2018.  
 R<sup>2</sup>, lenalidomide plus rituximab; R-placebo, rituximab plus placebo; SD, standard deviation; TEAE, treatment-emergent adverse event.

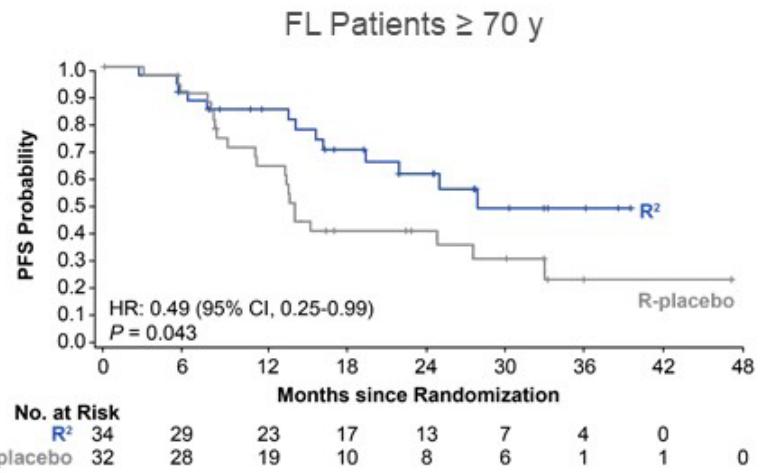
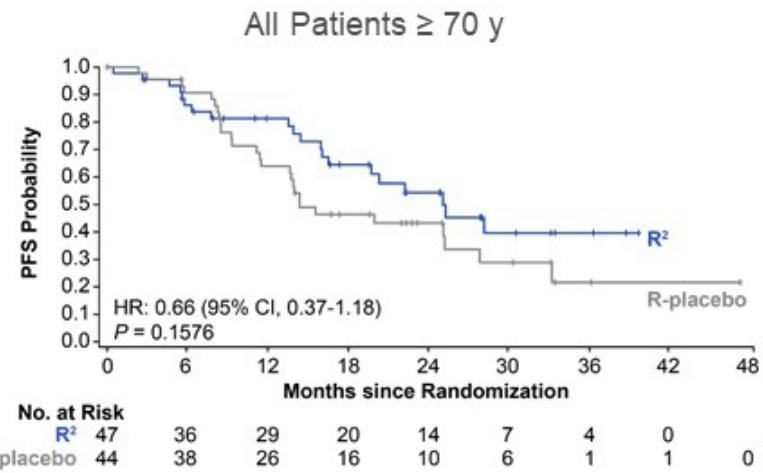
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## TEAEs IN $\geq 20\%$ OF PATIENTS FOR EITHER GROUP (SAFETY POPULATION)



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## PRIMARY END POINT: PROGRESSION-FREE SURVIVAL (ITT, IRC\*)



	All $\geq 70$ y		FL $\geq 70$ y		Total	
	R <sup>2</sup> (n = 47)	R-Placebo (n = 44)	R <sup>2</sup> (n = 34)	R-Placebo (n = 32)	R <sup>2</sup> (n = 178)	R-Placebo (n = 180)
	PFS, median (95% CI), mo	24.9 (16.4-NR)	14.3 (11.3- 27.7)	28.0 (16.4-NR)	14.3 (11.3- 27.7)	39.4 (22.9-NR)
HR (95% CI)	0.66 (0.37-1.18)		0.49 (0.25-0.99)		0.46 (0.34-0.62)	

Data cutoff June 22, 2018.

FDA, Food and Drug administration; FL, follicular lymphoma; CI, confidence interval; HR, hazard ratio; IRC, independent review committee; ITT, intention-to-treat; NR, not reached; PFS, progression-free survival; R<sup>2</sup>, lenalidomide plus rituximab; R-placebo, rituximab plus placebo.

\*Censoring rules based on FDA guidance.

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## CONCLUSIONS

- Similar to the results in the overall population,<sup>1</sup>
  - Median PFS in the ≥ 70 y vs overall population R<sup>2</sup> arms was 24.9 vs 39.4 months
  - R<sup>2</sup> showed trend to superior PFS vs R-placebo in ITT older patients aged ≥ 70 y (HR, 0.66,  $P = 0.1576$ )
  - R<sup>2</sup> showed superior PFS vs R-placebo in FL older patients aged ≥ 70 y (HR, 0.49,  $P=0.043$ )
- The safety profiles of R<sup>2</sup> and R-placebo in patients aged ≥ 70 y were similar to those reported in the overall population
- These data show that R<sup>2</sup> maintained efficacy improvements vs R-placebo in patients aged ≥ 70 y, despite higher unfit status and lower overall lenalidomide treatment/exposure (compared to the overall population)
- R<sup>2</sup> is an effective and available treatment option for patients with iNHL, including those with advanced age

CR, complete response; FDA, Food and Drug administration; FL, follicular lymphoma; iNHL, indolent non-Hodgkin lymphoma; MZL, marginal zone lymphoma; ORR, objective response rate; PFS, progression-free survival; R<sup>2</sup>, lenalidomide plus rituximab; R-placebo, rituximab plus placebo; R/R, relapsed/refractory.

1. Leonard et al. J Clin Oncol. 2019;37:1188-1199.

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## Kapitel 4

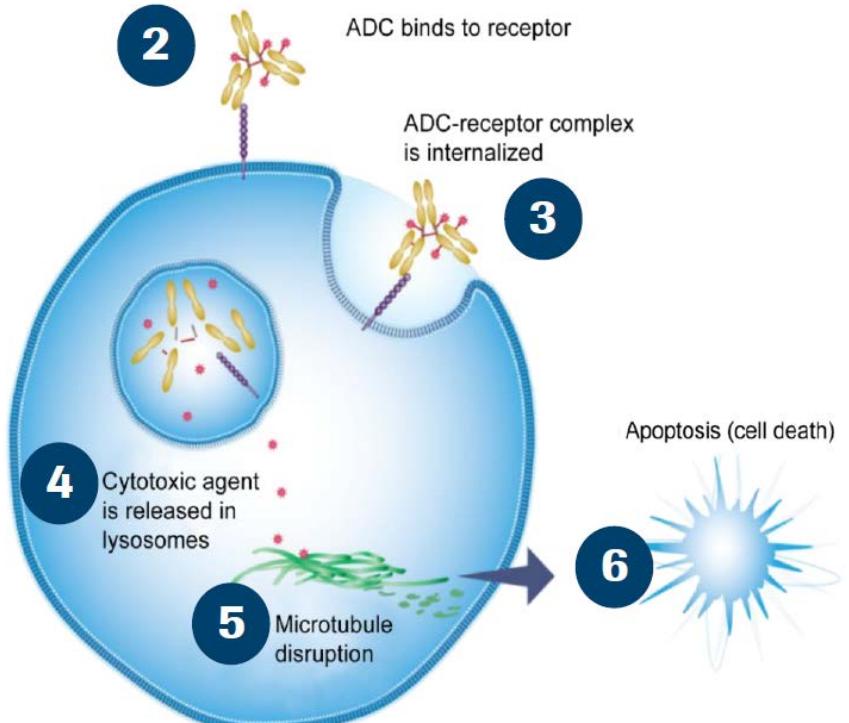
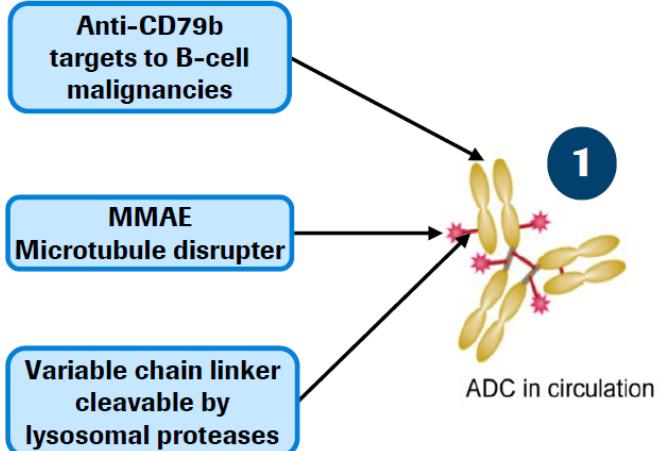
# Indolente Lymphome Follikuläres Lymphom (FL)

*Wie sicher und effektiv ist eine Triple – Therapie,  
bestehend aus Obinutuzumab, Lenalidomid und  
Polatuzumab?*

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## Polatuzumab Vedotin:

*anti-CD79b Antibody drug conjugate*



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## POLATUZUMAB VEDOTIN PLUS OBINUTUZUMAB AND LENALIDOMIDE IN PATIENTS WITH RELAPSED/REFRACTORY FOLLICULAR LYMPHOMA: PRIMARY ANALYSIS OF THE FULL EFFICACY POPULATION IN A PHASE IB/II TRIAL

Saturday, December 7, 2019: 10:45 AM

Hall E2, Level 2 (Orange County Convention Center)

*Catherine Diefenbach, MD<sup>1</sup>, Brad S. Kahl, MD<sup>2</sup>, Lalita Banerjee, FRCPATH<sup>3\*</sup>, Andrew K McMillan, FRCP<sup>4</sup>, Fiona Miall, MD, FRCPATH, MRCP, BMBS<sup>5\*</sup>, Javier Briones, MD, PhD<sup>6\*</sup>, Raul Cordoba, MD, PhD<sup>7</sup>, Jamie Hirata, PharmD<sup>8</sup>, Yimeng Chang, MSc<sup>9\*</sup>, Lisa Musick, PharmD<sup>8\*</sup> and Pau Abrisqueta, MD, PhD<sup>10\*</sup>*

<sup>1</sup>Perlmutter Cancer Center at NYU Langone Health, New York, NY

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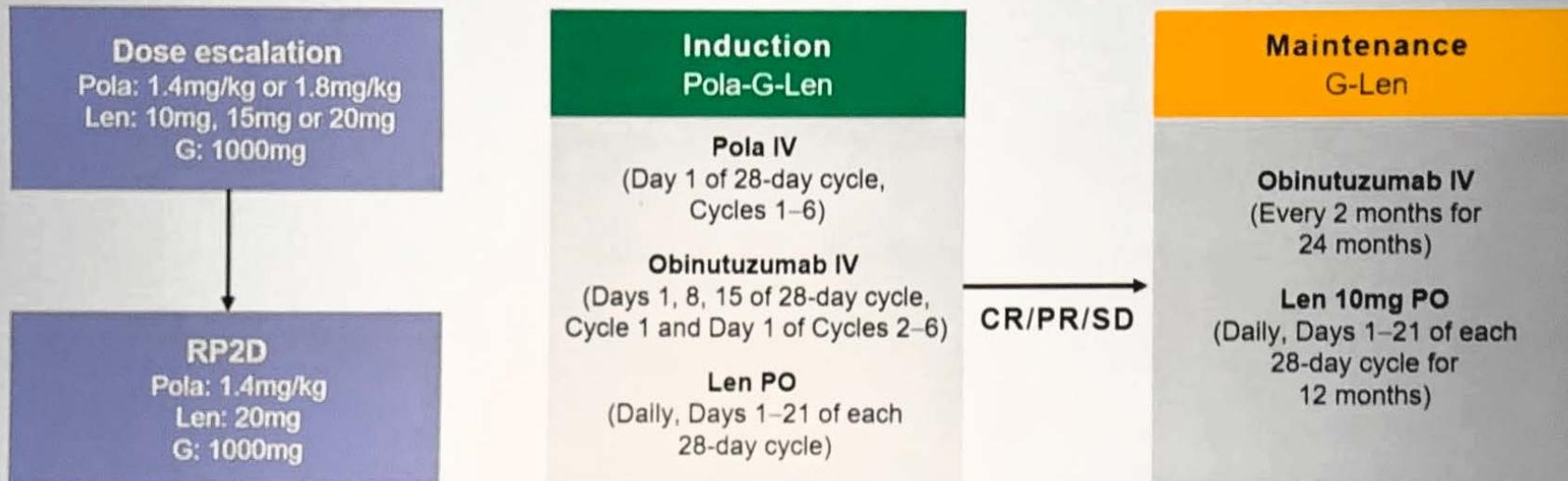
## Hintergrund

- Polatuzumab-Vedotin (Pola) in Kombination mit Obinutuzumab (G)
  - Aktivität und Verträglichkeit in einer Phase-Ib/II-Studie bei Pts mit R/R follikulärem Lymphom
- Dublettkombination aus G plus Lenalidomid (Len): Günstige Aktivität und akzeptables Sicherheitsprofil
  - Phase-II-Studie an Patienten mit R/R FL
- Studienziel: Weitere Verbesserung des Antitumoransprechens bei R/R FL mit Pola-G-Len
- Präsentation der vollständigen Primäranalyse der Wirksamkeits- und Sicherheitsdaten aus einer Phase Ib/II-Studie von Pola-G-Len bei Patienten mit R/R FL

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## Studiendesign

### Open-label, single-arm, Phase Ib/II study in patients with R/R FL



#### Primary efficacy endpoint:

CR at EOI, as determined by the IRC, on the basis of PET-CT scans (by Modified Lugano 2014 criteria)

CR, complete response; EOI, end of induction; G, obinutuzumab; IRC, independent review committee; IV, intravenous; Len, lenalidomide; PO, by mouth; PR, partial response; RP2D, recommended Phase II dose; SD, stable disease. Clinicaltrials.gov: NCT02600897

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## Studiendesign

### Safety summary

#### Grade 3–4 AEs and AESIs

<i>n</i> (%)	<i>N</i> =56
Grade 3–4 AEs ( $\geq 2$ patients)	47 (84)
Hematologic AEs	
Neutropenia	31 (55)
Thrombocytopenia	15 (27)
Anemia	8 (14)
Febrile neutropenia	6 (11)
Non-hematologic AEs	
Infections and infestations <sup>1</sup>	11 (20)
Hypokalemia	3 (5)
Diarrhea	2 (4)
Lipase increased	2 (4)
Laboratory tumor lysis syndrome	2 (4)
ALT increased	2 (4)
Syncope	2 (4)

- Filgrastim (GCSF) use:
  - 31 (55%) during induction
  - 20 (36%) during maintenance
- Platelet transfusions:
  - 1 (2%) during induction
  - 1 (2%) during maintenance

<i>n</i> (%)	<i>N</i> =56
AESIs	6 (11)
Neoplasms, benign, malignant, and unspecified	
Tumor flare	4 (7)
Myelodysplastic syndrome	1 (2)
Lung neoplasm malignant	1 (2)

AESI, adverse event of special interest; GCSF, granulocyte colony stimulating factor

Clinical cut-off date: 12 August 2019

<sup>1</sup>Presented as Systems Organ Class term – all other AEs are reported by 'preferred terms'

## Ergebnisse

### Efficacy summary

Primary analysis efficacy-evaluable population (N=46)

EOI response, n (%)	Modified Lugano 2014 <sup>1</sup>		Lugano 2014	
	INV	IRC	INV	IRC
Objective response	38 (83)	35 (76)	38 (83)	35 (76)
Complete response	28 (61) <sup>2</sup>	29 (63) <sup>2</sup>	34 (74)	33 (72)
Partial response	10 (22)	6 (13)	4 (9)	2 (4)
Stable disease	3 (7)	4 (9)	3 (7)	4 (9)
Disease progression	3 (7)	1 (2)	3 (7)	1 (2)
Missing/not evaluable/not available	2 (4)	6 (13) <sup>3</sup>	2 (4)	6 (13) <sup>3</sup>

INV, Investigator assessed; IRC, independent review committee assessed

Clinical cut-off date: 12 Aug 2019

<sup>1</sup>Modified Lugano requires a negative bone marrow biopsy to confirm PET-CR and PET-PR must also meet CT-PR criteria

<sup>2</sup>CR downgraded to PR due to missing bone marrow biopsy in 6 patients by INV and 4 patients by IRC

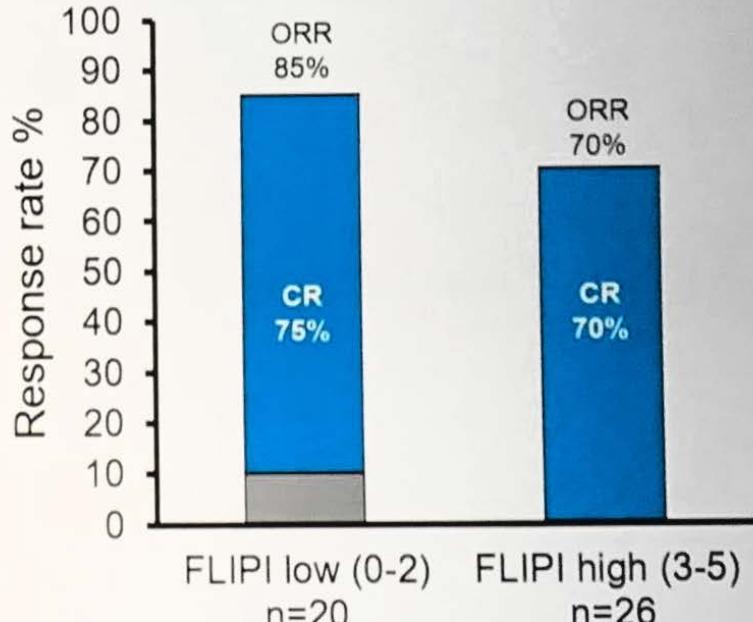
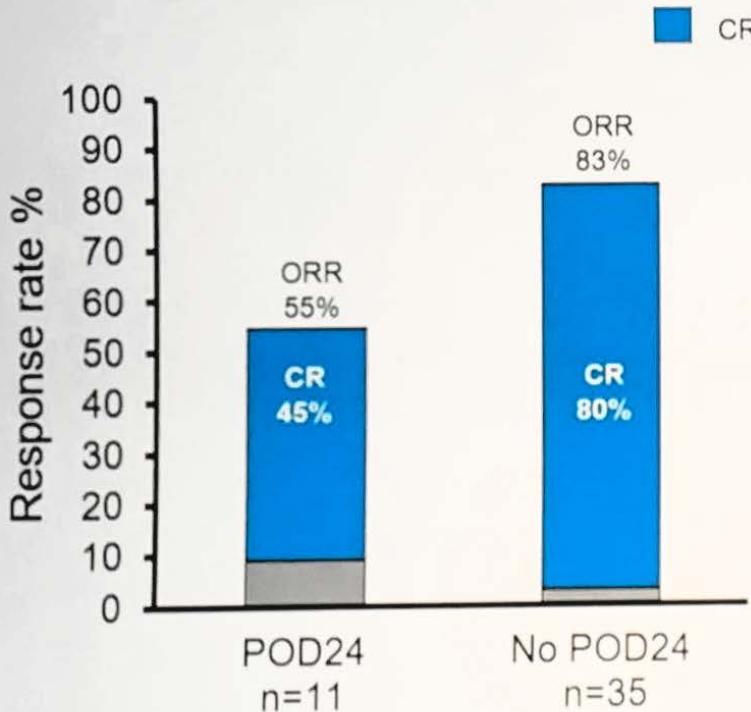
<sup>3</sup>Three patients experienced early PD, scans were not sent to IRC and therefore were classified as missing

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## Ergebnisse

### Subgroup analysis

POD24 and FLIPI high



ORR, overall response rate; Lugano (IRC), efficacy-evaluable population

Clinical cut-off date: 12 August 2019

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Orlando, 7.-10. Dezember 2019

ASH 2019, Catherine Diefenbach et al., 126: Polatuzumab Vedotin Plus Obinutuzumab and Lenalidomide in Patients With Relapsed/Refractory Follicular Lymphoma:

Direktor, CCC Ulm - Institut für Experimentelle Tumorforschung, Universitätsklinikum Ulm

Seite 40

## Schlussfolgerungen

- Diese Studie: Neuartige Triplettkombination Pola-G-Len zeigt ein Sicherheitsprofil, das mit den bekannten Profilen der einzelnen Arzneimittel übereinstimmt
- Bericht über die vollständige Wirksamkeit der Population:
  - Hohe CR-Raten bei EOI in einer stark vorbehandelten und refraktären Population, was im Vergleich zu derzeit verfügbaren R/R-FL-Therapien günstig ist
- Überzeugende Ergebnisse → Weitere Untersuchung dieser Triplet-Kombination in einer größeren Pt-Population
- Um das mediane PFS zu bestimmen, wird ein längerer Zeitraum der Nachsorge über die Erhaltungstherapie hinaus durchgeführt

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## Kapitel 4

# Indolente Lymphome Morbus Waldenström

*Sollte beim Morbus Waldenström einer Rituximab Erhaltungstherapie durchgeführt werden?*

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#343

## TWO YEARS RITUXIMAB MAINTENANCE VS. OBSERVATION AFTER FIRST LINE TREATMENT WITH BENDAMUSTINE PLUS RITUXIMAB (B-R) IN PATIENTS WITH WALDENSTRÖM'S MACROGLOBULINEMIA (MW): RESULTS OF A PROSPECTIVE, RANDOMIZED, MULTICENTER PHASE 3 STUDY (THE STIL NHL7-2008 MAINTAIN TRIAL)

Sunday, December 8, 2019: 7:30 AM

Tangerine 3 (WF3-4), Level 2 (Orange County Convention Center)

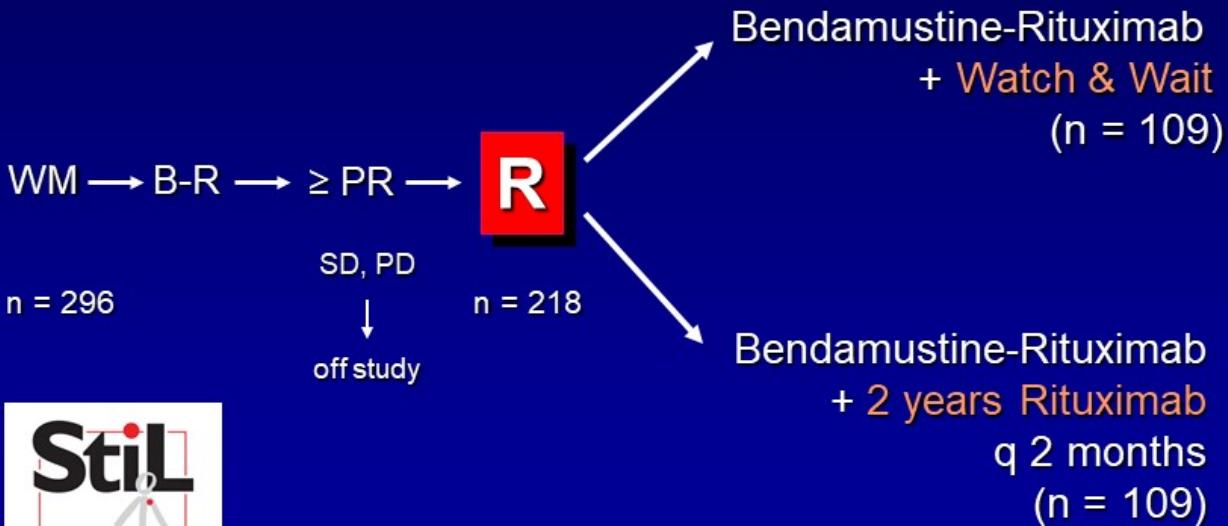
***Mathias J Rummel, MD, PhD1\*, Christian Lerchenmüller, MD2\*, Manfred Hensel, MD3\*, Martin Goerner, MD4\*, Christian Buske, MD, PhD5, Holger Schulz6\*, Burkhard Schmidt, MD7\*, Georgi Kojouharoff, MD8\*, Elisabeth Lange, MD9\*, Wolfgang Willenbacher, MD, PhD10, Jan Dürig11\*, Erik Engel12\*, Frank Kauff1\*, Jürgen Barth1\*, Alexander Christoph Burchardt, MD1\*, Axel Hinke, PhD13\*, Jasmin Wupperfeld1\* and Richard Greil, MD14***

<sup>1</sup>Med. Clinic IV, Hematology, Justus Liebig University, Giessen, Germany

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## B-R + Watch & Wait vs. B-R + 2 years Rituximab

### StiL NHL 7-2008 - MAINTAIN



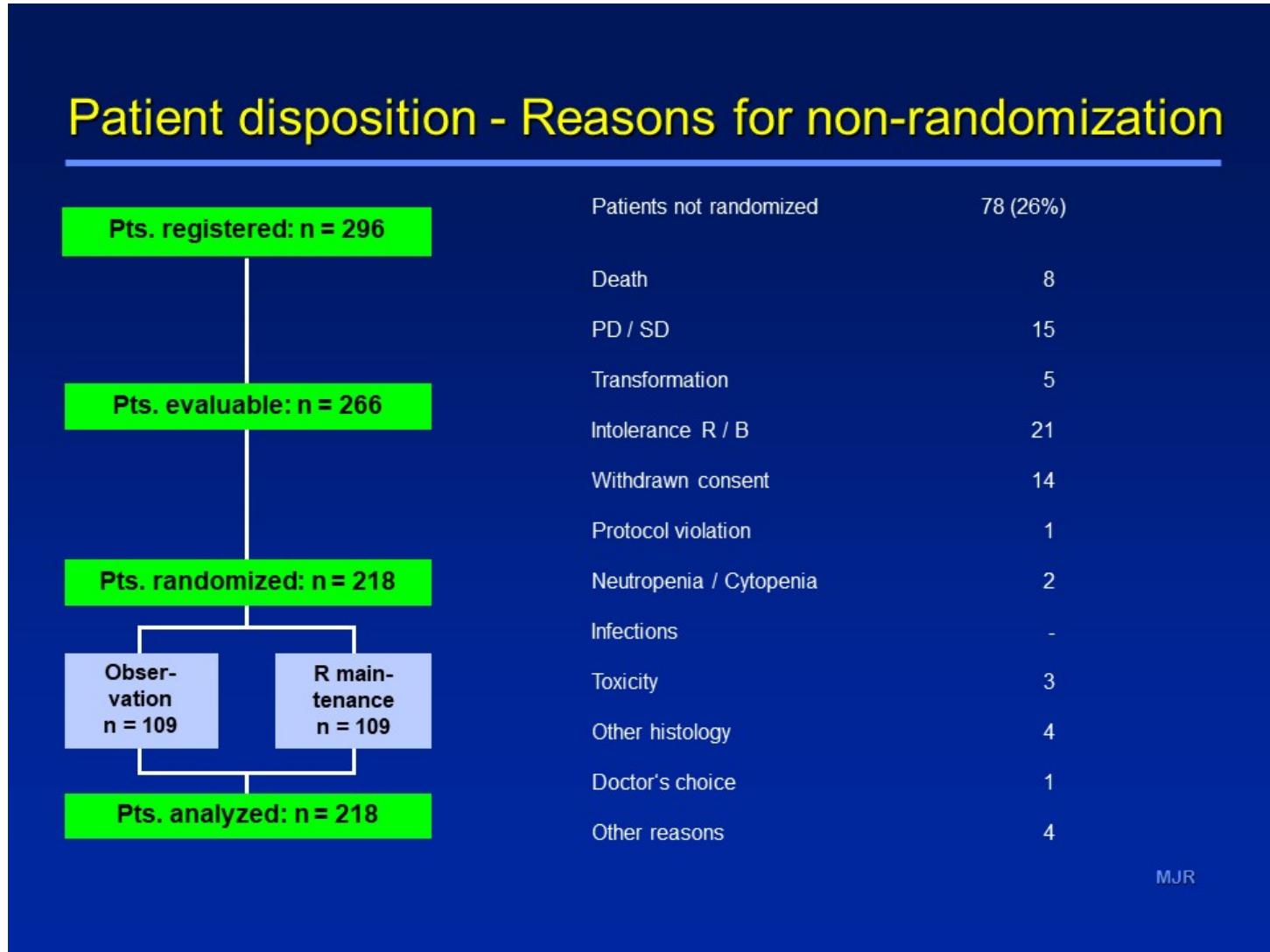
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## Inclusion criteria

- ⦿ Patients with histological proven WM in need of treatment
- ⦿ Previously untreated patients
- ⦿ Histology not older than 6 months
- ⦿ Stage III or IV
- ⦿ Patients age 18 - 80 years
- ⦿ ECOG 0-2
- ⦿ Written informed consent of the patient

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## Response rates following B-R induction

266 patients evaluable for response evaluation

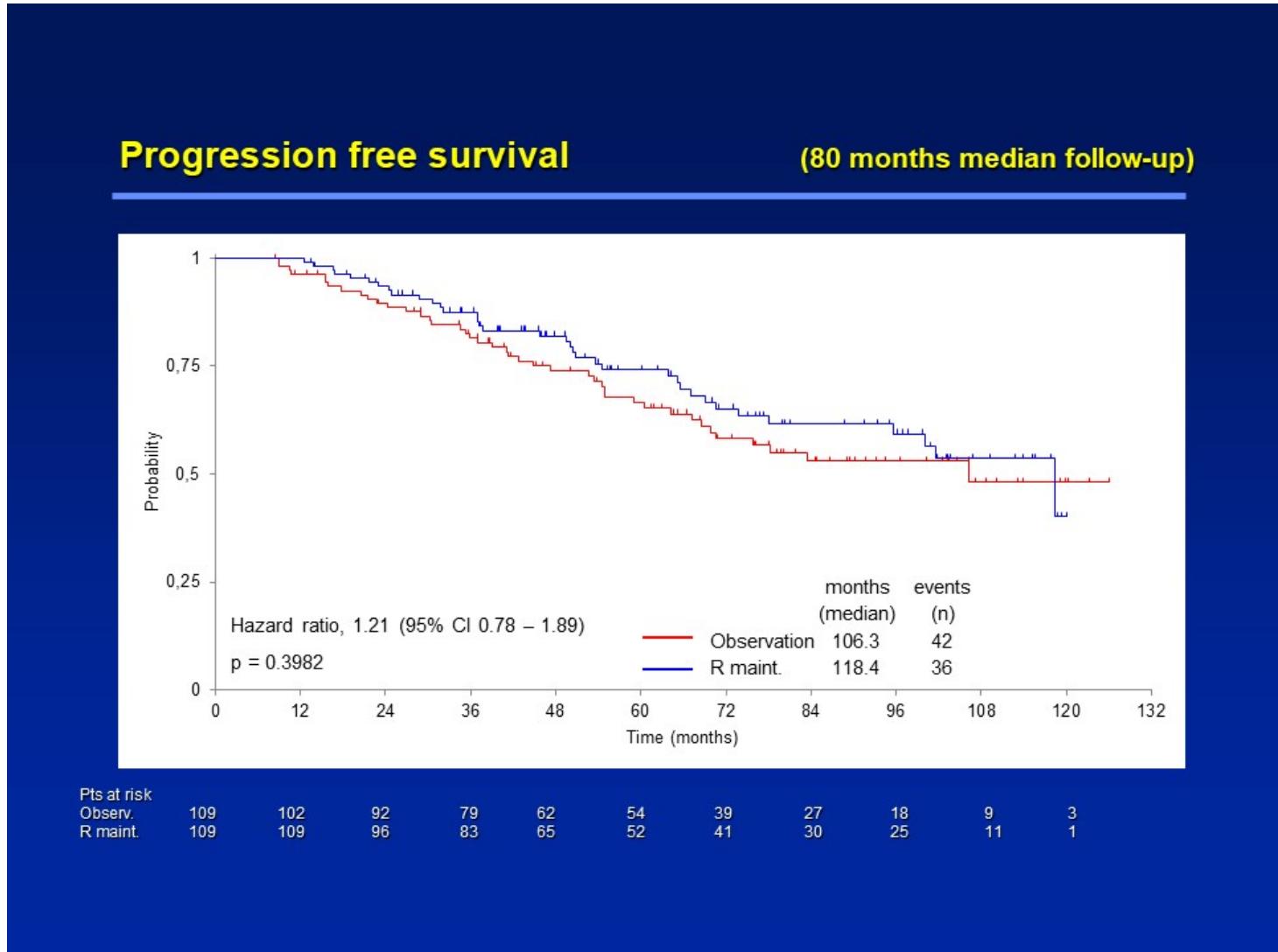
ORR	247 (93%)
MRR	235 (88%)

CR	3 (1%)
VGPR	65 (24%)
PR	167 (63%)
MR	12 (5%)
SD	3 (1%)
PD	11 (4%)
Early death *	5 (2%)

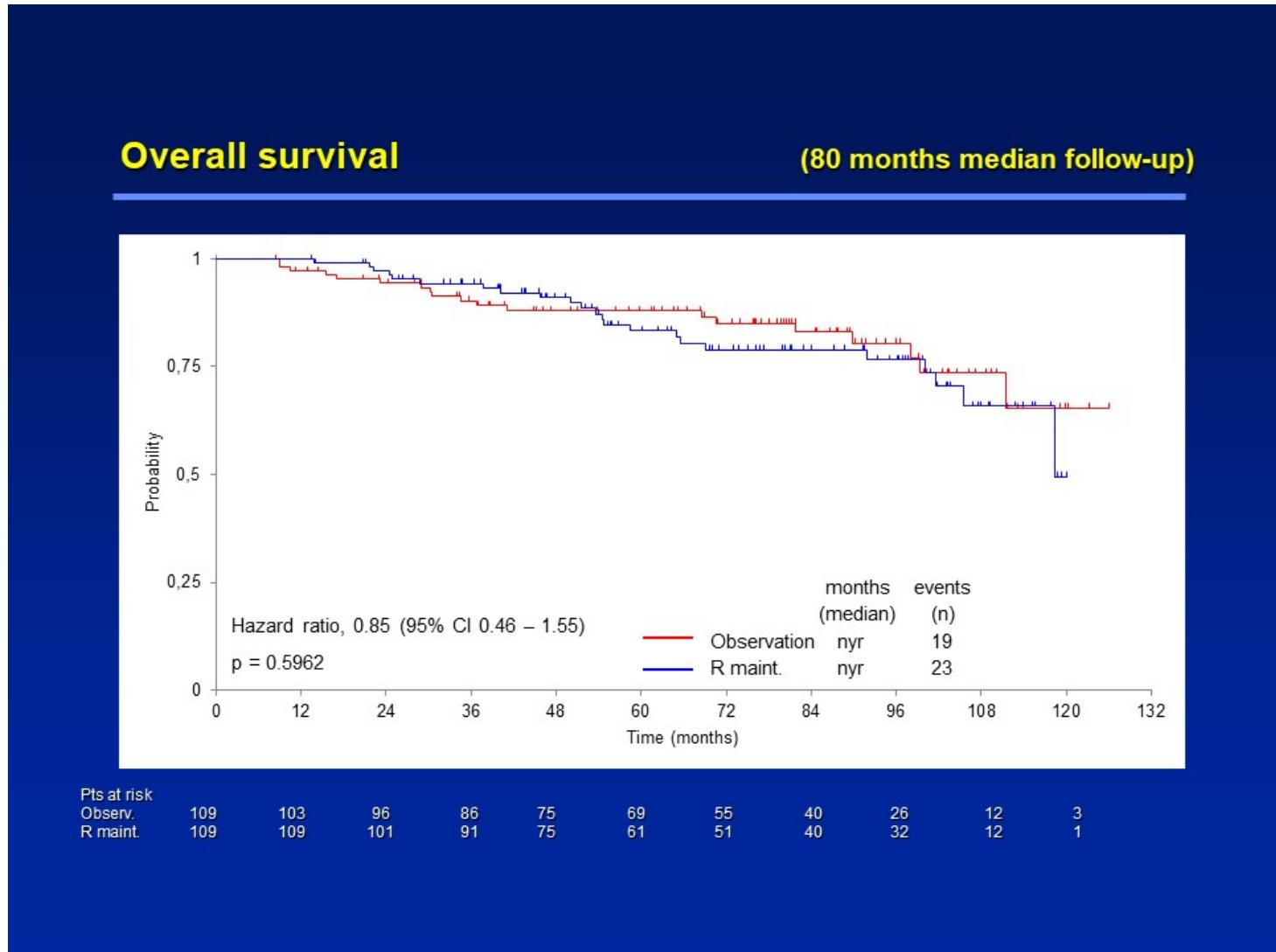
\* Age of pts dying early: 65, 73, 74, 79, 79

MJR

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## Kapitel 5

# Indolente Lymphome Morbus Waldenström

*Welche Ergebnisse lassen sich mit neuen  
chemotherapiefreien Ansätzen beim Morbus  
Waldenström erzielen?*

Prof. Dr. med. Christian Buske

#344

## IXAZOMIB, RITUXIMAB AND DEXAMETHASONE (IRD) IN PATIENTS WITH RELAPSED OR PROGRESSIVE WALDENSTROM'S MACROBLOBULINEMIA: RESULTS OF THE PROSPECTIVE PHASE I/II HOVON 124/ECWM-R2 TRIAL

Sunday, December 8, 2019: 7:45 AM

Tangerine 3 (WF3-4), Level 2 (Orange County Convention Center)

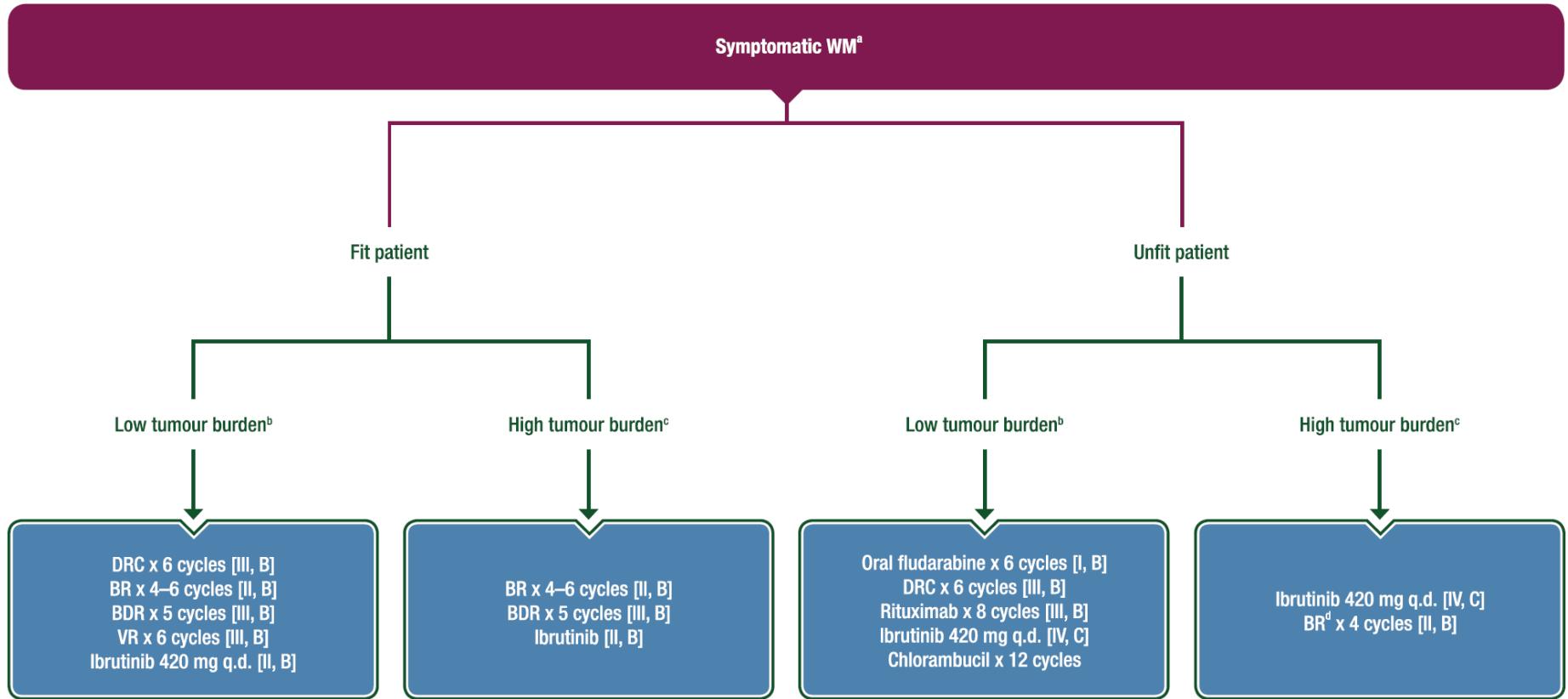
*Marie José Kersten, MD, PhD<sup>1</sup>, Monique C. Minnema<sup>2</sup>, Josephine M. Vos, MD, PhD<sup>3,4\*</sup>, Kazem Nasserinejad<sup>5\*</sup>, Marcel Kap, BSc<sup>6\*</sup>, Eftathios Kastritis<sup>7\*</sup>, Maria Gavriatopoulou, MD<sup>8\*</sup>, Martine E.D. Chamuleau<sup>9</sup>, Dries Deeren, MD, PhD<sup>10</sup>, Lidwine Winnifred Tick, MD, PhD<sup>11</sup>, Jeanette K. Doorduijn, MD, PhD<sup>12</sup>, Fritz Offner, MD<sup>13</sup>, Lara H Bohmer, MD<sup>14\*</sup>, Karima Amaador, MD<sup>3\*</sup>, Roberto D Liu, BSc<sup>3\*</sup>, Steven T Pals, MD, PhD<sup>15\*</sup> and Meletios A. Dimopoulos, MD<sup>16</sup>*

<sup>1</sup>*Dept. of Hematology, Cancer Center, Amsterdam UMC, University of Amsterdam, Amsterdam, Netherlands*

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## ESMO Guidelines Waldenström



*Kastritis .... Buske 2018*

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## Treatment schedule

**Induction:**  
**8 cycles q28 days**

> SD

**Maintenance:**  
**2 years q3months**

- Ixazomib citrate 4 mg d1,8,15
- Rituximab 1400 mg sc d1  
*cycle 3-8 (1<sup>st</sup> dose iv)*
- Dexamethasone 20 mg  
d1,8,15,22

- Rituximab 1400 mg sc d1

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## Eligibility

### Main inclusion criteria

- Relapsed/progressed WM
- Need for treatment (consensus criteria)
- Measurable disease ( $IgM > 1 \text{ g/dl}$ )
- Prior bortezomib and/or rituximab allowed, *unless refractory* (PD during treatment or  $< 6$  months after last administration)
- Plt  $>80$ ; ANC  $>1.0$

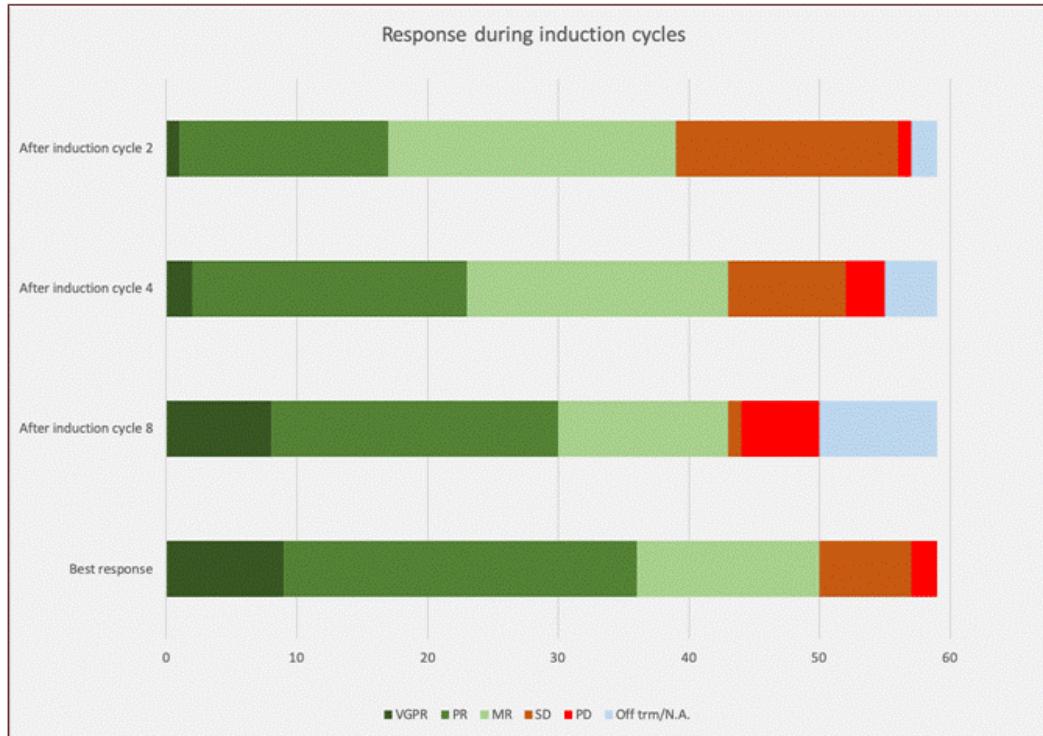
### Main exclusion criteria

- Amyloidosis
- Bing-Neel syndrome
- Known intolerance of rituximab and/or boron
- Other standard exclusion criteria

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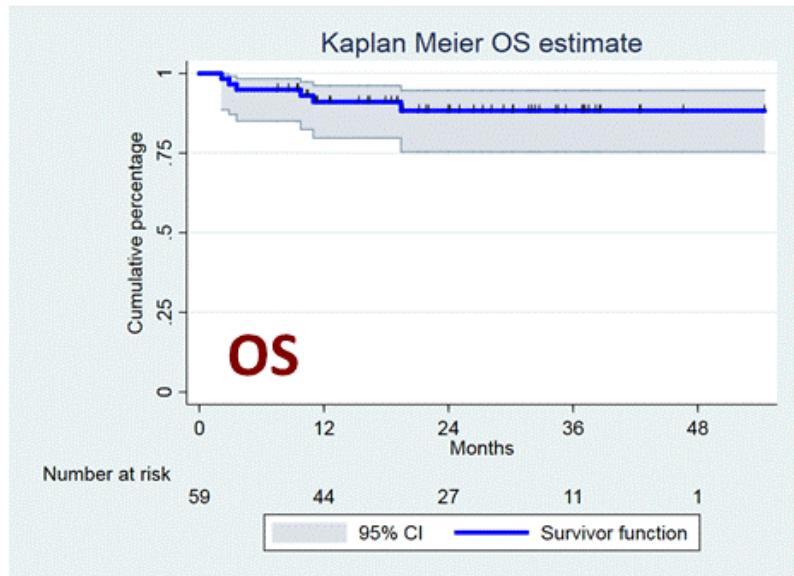
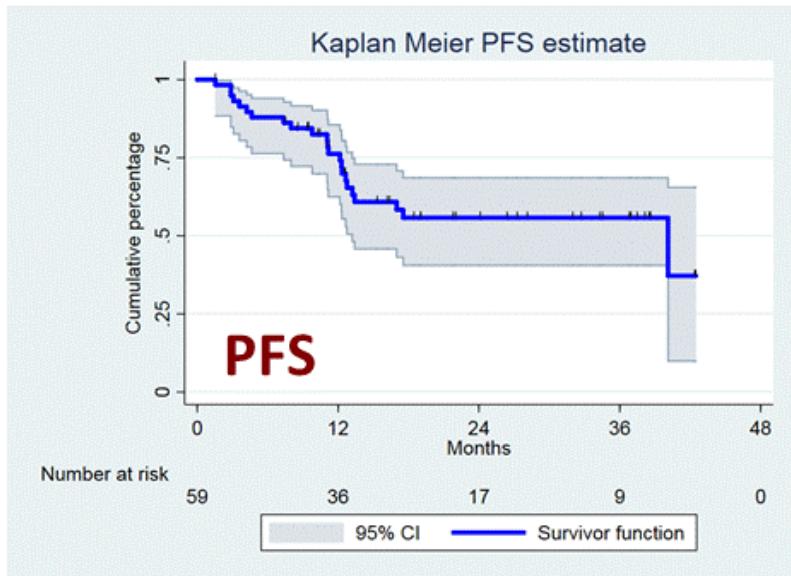
## Response rates at c2, 4, 8 and best ORR

- Primary endpoint (ORR after c8 not <40%) was met:
  - ORR 71%; at least PR 51%
- Best response obtained during induction: ORR 85%
  - 15% VGPR, 46% PR, 24% MR



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## PFS and OS median follow-up 24 months



**At 24 months:**

- **PFS 56%; DOR 60%; OS 88%**
- **Median PFS, DOR, OS not reached**

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## Conclusions

### IRD is feasible

- High ease of administration
- No IgM flares
- Using sc rituximab, none of the patients developed R hypersensitivity
- Using PROMs, no increase in symptom burden for PNP was seen

### IRD is an active regimen

- Significant decrease in IgM and increase in Hb after cycle 2 (before start R)
- Significant increase global HR-QoL
- With a median follow-up of 24 months, median DOR and PFS have not been reached

### Further improvement of results:

- Use as a backbone for combination treatment (e.g. with btk inhibitor, venetoclax, daratumumab)
- Ixazomib citrate consolidation/maintenance

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#346

## OPEN LABEL NON-RANDOMIZED PHASE II STUDY EXPLORING «CHEMO-FREE » TREATMENT ASSOCIATION WITH IDELALISIB + OBINUTUZUMAB IN PATIENTS WITH RELAPSED/REFRACTORY (R/R) WALDENSTROM'S MACROGLOBULINEMIA (MW), A FILO TRIAL: RESULTS OF THE INTERMEDIARY ANALYSIS OF THE INDUCTION PHASE

Sunday, December 8, 2019: 8:15 AM

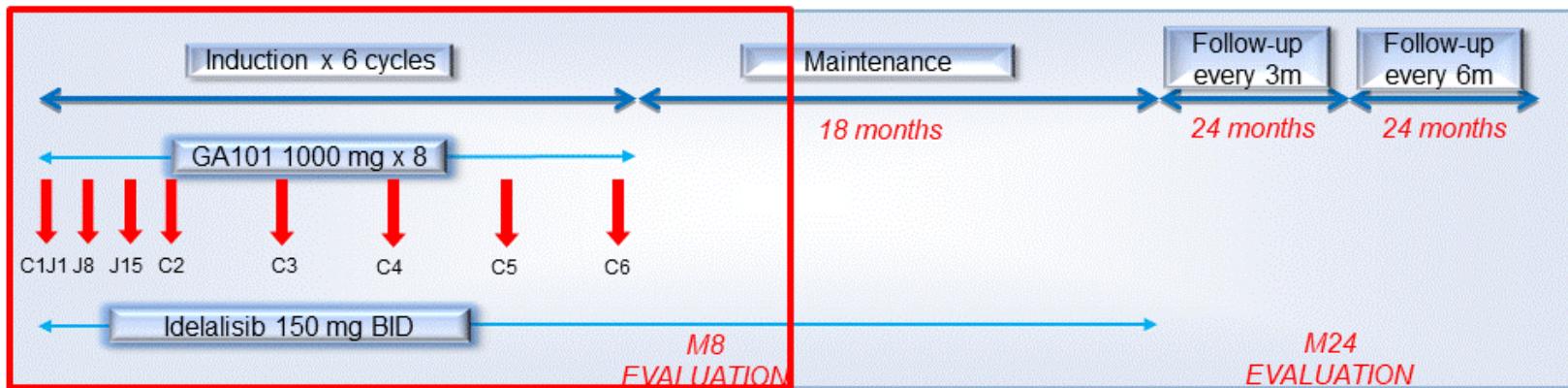
Tangerine 3 (WF3-4), Level 2 (Orange County Convention Center)

*Cecile Tomowiak, MD<sup>1\*</sup>, Kristell Desseaux<sup>2\*</sup>, Stéphanie Poulain, MD, PhD<sup>3\*</sup>, Charles Herbaux, MD<sup>4\*</sup>, Aurore Perrot, MD, PhD<sup>5\*</sup>, Beatrice Mahe, MD<sup>6\*</sup>, Pierre Morel, MD<sup>7\*</sup>, Olivier Tournilhac<sup>8\*</sup>, Stephane Lepretre, MD<sup>9\*</sup>, Thérèse Aurran, MD<sup>10\*</sup>, Bruno Villemagne, MD<sup>11\*</sup>, Olivier Casasnovas, MD<sup>12\*</sup>, Delphine Nollet<sup>13\*</sup>, Brigitte Dreyfus, MD<sup>14\*</sup>, Sylvie Chevret, MD, PhD<sup>15\*</sup> and Veronique Leblond, MD, PhD<sup>16</sup>*

<sup>1</sup>*Department of Oncology-Haematology and Cell Therapy, CHU, Poitiers, INSERM, Inserm CIC 1402, Poitiers, France, Poitiers, France*

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## Study design



- Primary objective: PFS by investigator assessment in ITT
- Secondary objectives: response rate, OS, safety
- Results of early efficacy and safety, assessed after the induction phase
- DSMC planned meetings: 3 times (after the inclusion of 5 patients treated with 3 cycles, after 25 patients and at the end of the induction phase for the 50 patients)
- VZV and Pneumocystis prophylaxis, and CMV monitoring were mandatory for all patients

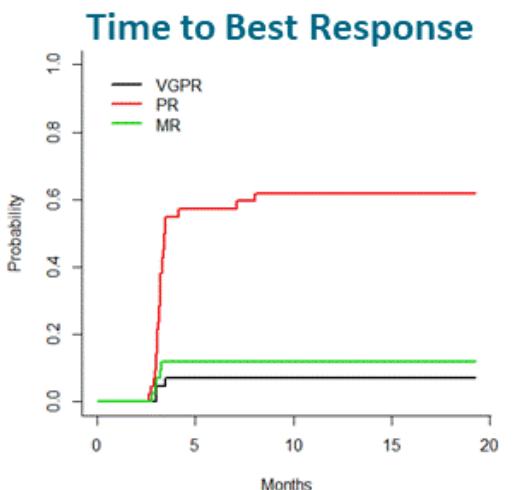
[www.clinicaltrials.gov](http://www.clinicaltrials.gov): NCT02962401

ASH 2019, REMODEL, Tomowiak et al.

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## Responses rate (n=49)

Best Responses	n (%)
ORR	34 (69)
CR	0
VGPR	3 (6)
PR	26 (53)
MR	5 (10)
Stable disease	6 (12)
Progressive disease	2 (4)

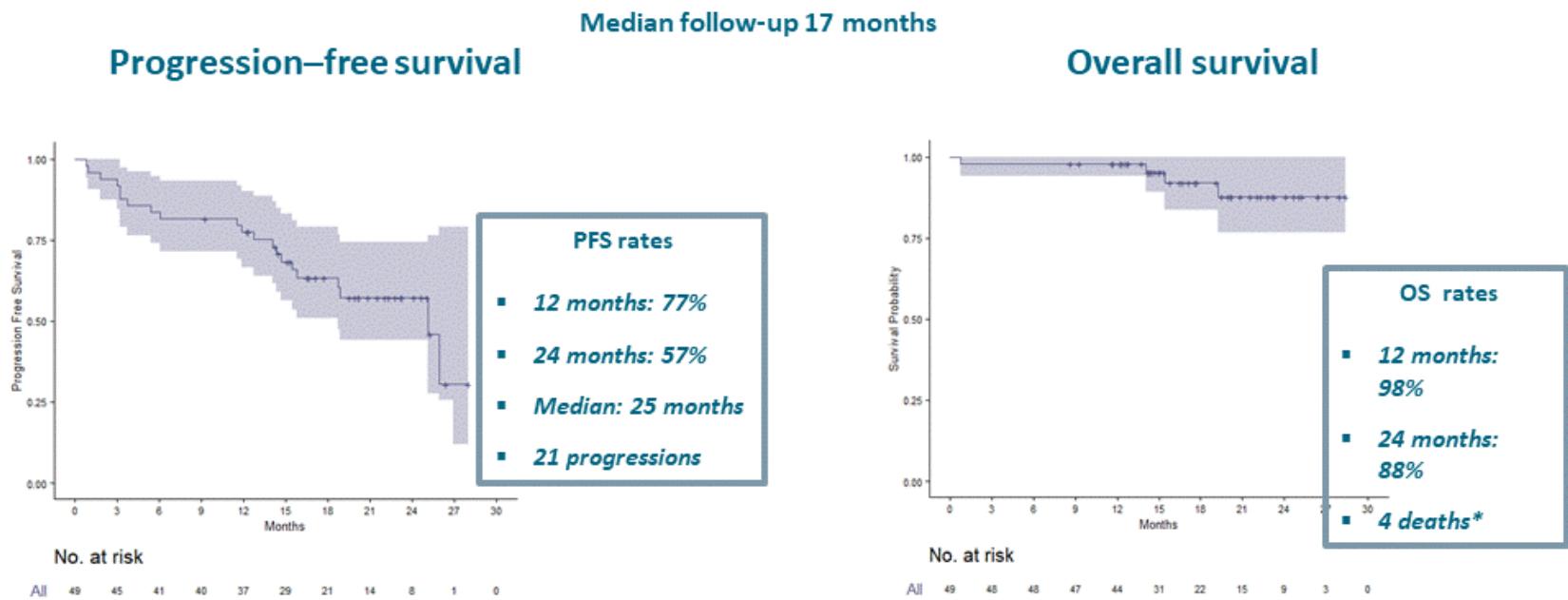


ORR: overall response rate, CR: complete response, VGPR: very good partial response, MR: minor response (according to Owen, *B J Hematol* 2012)

ASH 2019, REMODEL, Tomowiak et al.

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## Progression-Free and Overall Survival

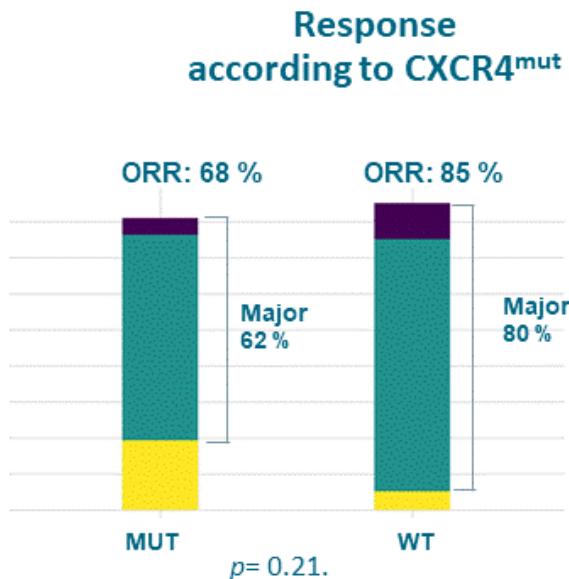


\*1 before starting treatment from unknown cause, 1 from progressive disease, 2 from infection 5 and 12 months after treatment discontinuation respectively

ASH 2019, REMODEL, Tomowiak et al.

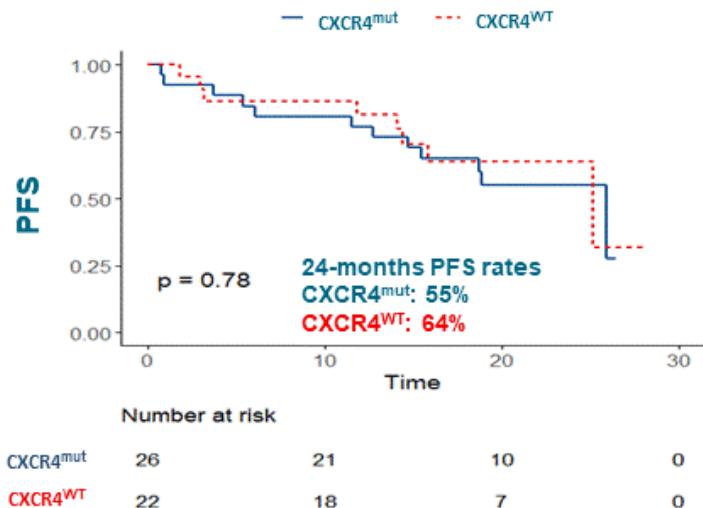
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## Response and PFS according to CXCR4 status



CXCR4<sup>mut</sup> (NGS + digital droplet PCR): 18 CXCR4<sup>S338X</sup>, 8 CXCR4<sup>frame shift</sup>  
**mut:** mutation, **WT:** wild type

## PFS according to CXCR4<sup>mut</sup>



ASH 2019, REMODEL, Tomowiak et al.

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## Conclusions

- **1<sup>st</sup> study evaluating combination with idelalisib + obinutuzumab in R/R WM with a chemo-free fixed-duration strategy**
- **69% ORR and 25-month median PFS**
- **High risk genotype profile: 53% patients CXCR4<sup>mut</sup>**  
**68% ORR and 26-month median PFS**
- **No unexpected toxicity with obinutuzumab + idelalisib association but dose reduction in 43% of the patients and idelalisib discontinuation in 49% of the patients**
- **Specific attention to gastro-intestinal disorders and liver cytotoxicity**

ASH 2019, REMODEL, Tomowiak et al.

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Die Kurzpräsentationen sind online unter

**[www.lymphome.de/ash2019](http://www.lymphome.de/ash2019)**

Für den Inhalt verantwortlich:

Prof. Dr. med. Christian Buske

Ärztlicher Direktor – CCC Ulm, Institutes für Experimentelle Tumorforschung •

Universitätsklinikum Ulm

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