



AT THE FOREFRONT

UChicago
Medicine

Non T-cell Engaging Options in RR FL

Sonali Smith, MD FASCO

Elwood V. Jensen Professor of Medicine

Chief, Section of Hematology/Oncology

Co-Leader, Cancer Service Line

Disclosures

Sonali Smith, MD serves as a consultant for Genmab, Ono Pharmaceuticals, and Regeneron.

FL: Clinical categories and treatment options

- BR
- R-CHOP +/- MR
- R-CVP
- Ritux monoRx
- Len-ritux*

Newly diagnosed
FL1-3a

POD24 →

ASCT?
Clinical trial?

Double-refractory FL

- (PI3Ki)
- CAR-T
- Bispecific agents

RISK FOR TRANSFORMATION

HTB vs. LTB,
symptomatic vs. asymptomatic

*Biopsy critical at
relapse to r/o
transformation*

Rela

Rela

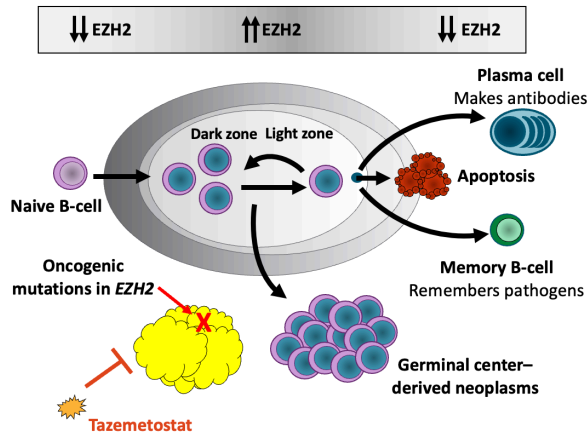
Rela

- | | |
|--------------------------|---------------------------|
| • ASCT | • Radiation therapy |
| • Benda + Obinu or Ritux | • Radioimmunotherapy |
| • Len-rituximab | • Ritux monoRx |
| • (PI3Ki) | • Tazemetostat |
| • Bispecific agents | • Zanubrutinib plus obinu |

NOVEL APPROACHES FOR R/R FL: A PREVIEW (approved and unapproved)

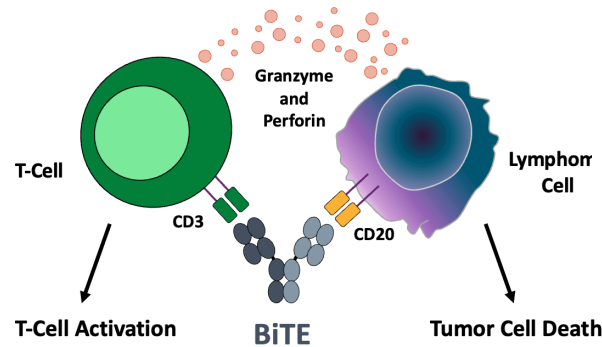
EZH2 inhibitors

Germinal Center Reaction



Bispecific agents

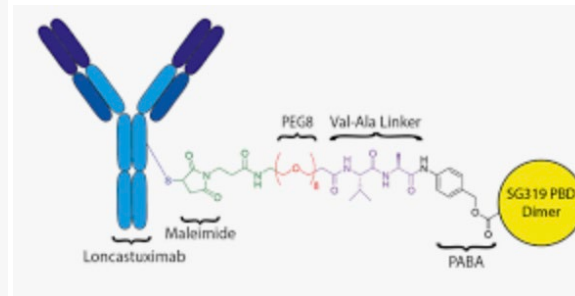
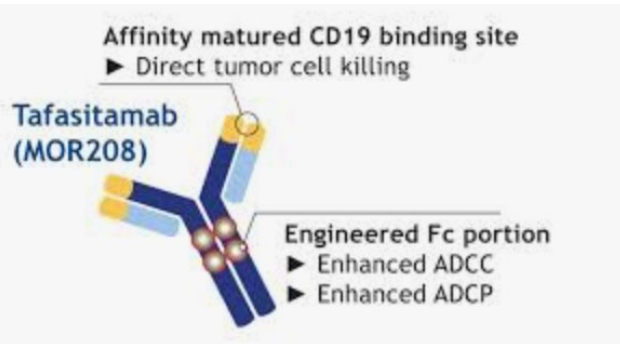
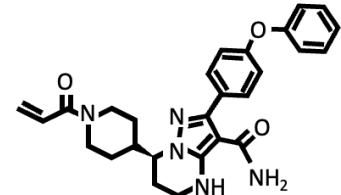
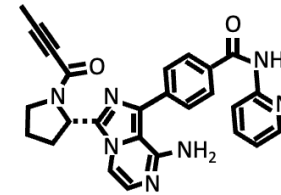
Cytokine Secretion



BTK inhibitors

Acalabrutinib

Zanubrutinib



antiCD19 moAb

AT THE FOREFRONT

UChicago
Medicine

antiCD19 ADC

CelMod



Chemoimmunotherapy in rel/ref FL

Trial/Agent	Key pt features	Design, Primary endpoint	Outcome	Comments
BR	Rel/ref 1-3 prior regimens	Ph 2 ORR	ORR 90% Med PFS 24m	
BR	Rituximab-sensitive	Ph 2	ORR 92% Med DR 21m Med PFS 23m	
BO	Rituximab-refractory	RP3 (BO + main O vs. B) PFS	Med PFS 25.8m vs. 14m (2018 update)	Overall survival benefit with longer f/u

Benda-based regimens yield med PFS 2 years

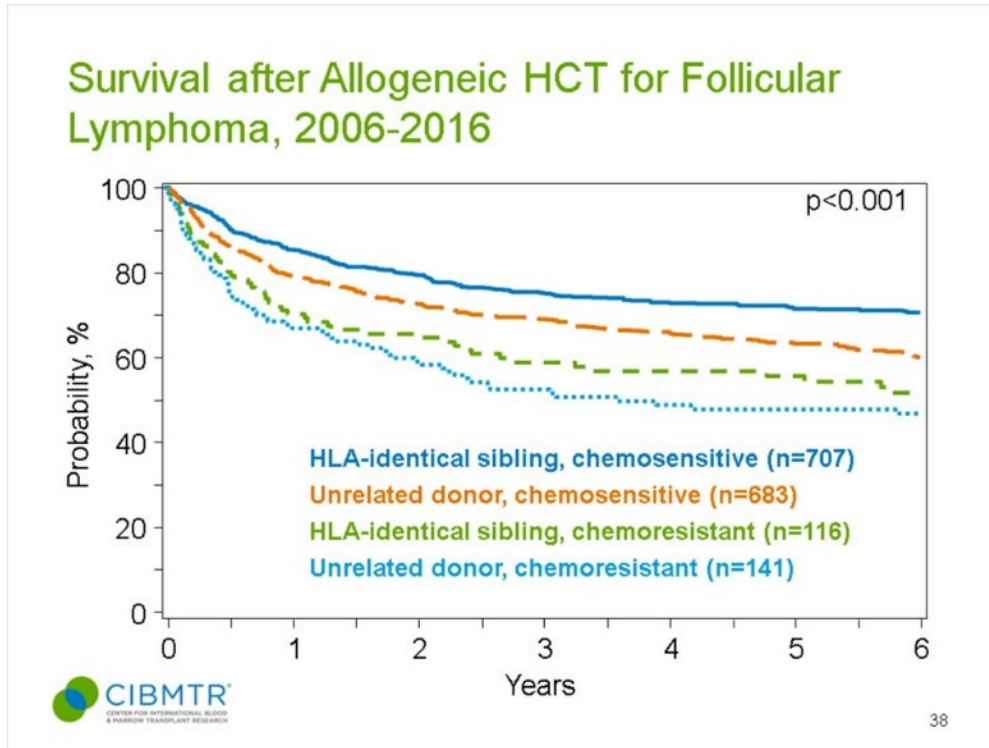


Can BR/BO be backbone for more agents?

- bortezomib **XX**
- lenalidomide **XX**

Autologous vs Allogeneic HCT in Early Relapsed FL

Auto = autologous HSCT
MSD = allogeneic HSCT w/
matched sibling donor
MUD = allogeneic HSCT w/
matched unrelated donor



Fewer than 2% of patients with FL undergo autoHCT

ASCT vs No ASCT for Early Progressing FL

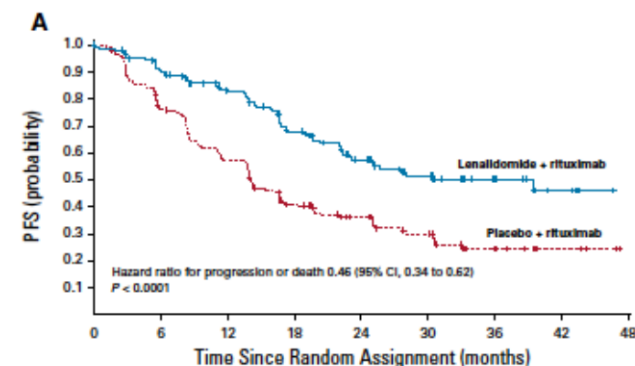
Study	Casulo et al ^[1]	Manna et al ^[2]	Jurunovic et al ^[3]
Patient cohorts	NLCS and CIBMTR	Calgary	GLSG
Patient population	Failure to achieve at least a PR or early relapse ≤ 2 yrs on frontline rituximab-based CIT	Early relapse ≤ 2 yrs following frontline CIT	Progressive, relapsed, or refractory disease ≤ 2 yrs on systemic frontline therapy*
N	349 <ul style="list-style-type: none"> ASCT cohort: 175 Non-ASCT cohort: 174 	84 <ul style="list-style-type: none"> ASCT cohort: 50 Non-ASCT cohort: 34 	113 <ul style="list-style-type: none"> ASCT cohort: 52 Non-ASCT cohort: 46[†]
5-Yr PFS, %	Not reported	Not reported	<ul style="list-style-type: none"> ASCT cohort: 51% Non-ASCT cohort: 19% <i>P</i> < .0001
5-Yr OS, %	<ul style="list-style-type: none"> ASCT cohort: 67% Non-ASCT cohort: 60% <i>P</i> = .16 	<ul style="list-style-type: none"> ASCT cohort: 85% Non-ASCT cohort: 58% <i>P</i> = .001 	<ul style="list-style-type: none"> ASCT cohort: 77% Non-ASCT cohort: 59% <i>P</i> = .031

1. Casulo. Biol Blood Marrow Transplant. 2018;24:1163. 2. Manna. Leuk Lymphoma. 2019;60:133. 3. Jurunovic. Biol Blood Marrow Transplant. 2018;24:1172.

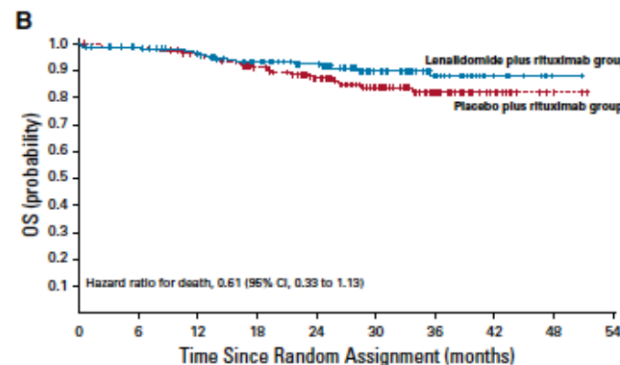
*At ≤ 65 yrs of age. †Excludes patients with cytoreduction failure.

Lenalidomide in relapsed (not refractory) FL: AUGMENT RP3 Len-ritux vs. Pbo-ritux

- N= 147 FL
- Disease characteristics:
 - ~30% relapsed within 2 years of initial Rx (POD24)
 - 50% progressed within 2 years of most recent therapy
 - 17% refractory to most recent regimen
- Results (R2 only):
 - Med PFS 39.4m (vs. 14m for R-pbo)
 - **ORR 78%, CR 34%**
 - Med DR 36.6m
 - Med OS NR



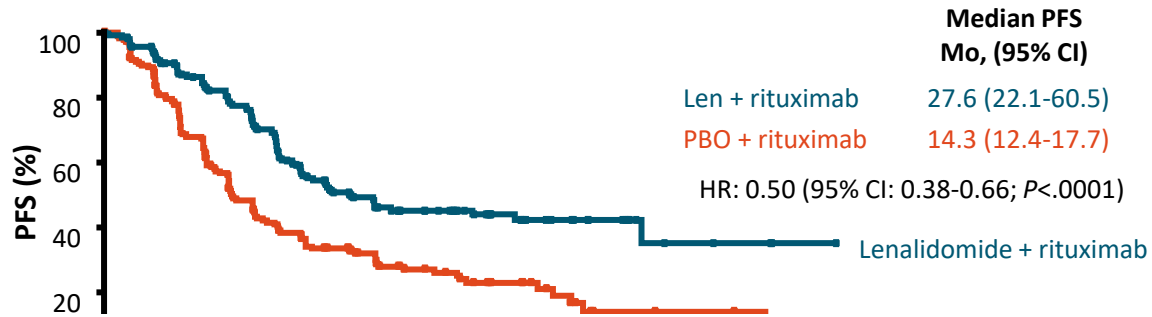
No. at risk:	178	148	124	91	59	39	20	7	0
+ rituximab	180	132	92	58	40	25	10	4	0



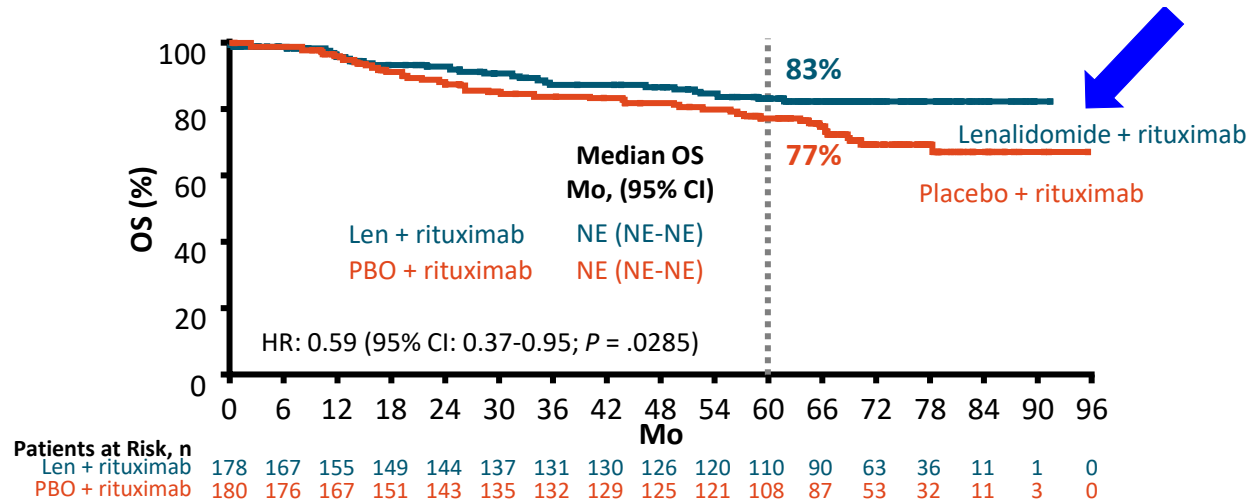
No. at risk:	178	167	155	143	122	80	44	15	1	0
+ rituximab	180	175	167	145	116	79	40	14	3	0

AUGMENT: 5-Yr Survival

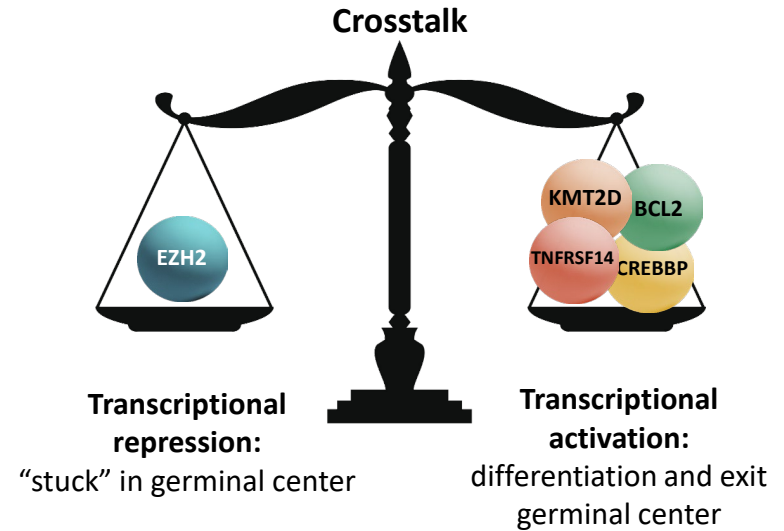
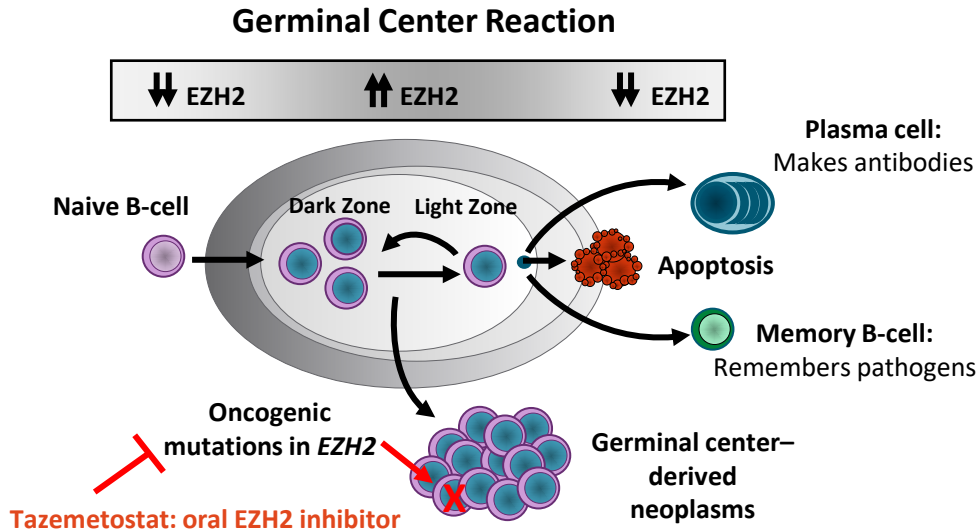
- Median follow-up: 65.9 mo



Can (and should) LenR be a backbone for future drug development?



Follicular Lymphoma and *EZH2*: Tazemetostat

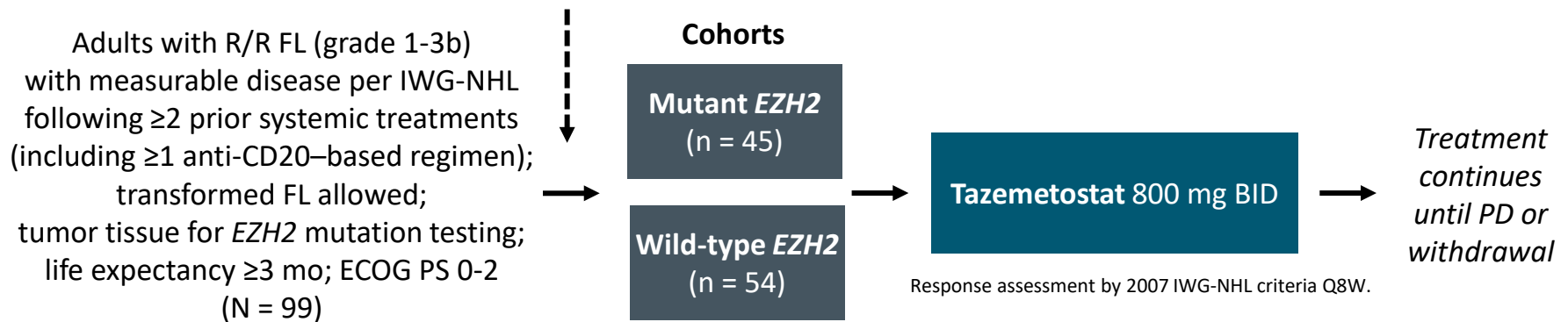


- *EZH2*: an epigenetic regulator of gene expression and cell fate decisions
 - In normal B-cell biology, *EZH2* regulates germinal center formation
 - *EZH2* mutations can lead to oncogenic transformation by locking B-cells in germinal state and preventing terminal differentiation

Phase II Study: Tazemetostat in R/R FL

- Open label, multicohort, single-arm phase II study conducted at 38 sites across NA, Europe, Australia (data cutoff for efficacy: August 9, 2019; for safety: May 24, 2019)

SCREENING: Central testing of archival tissue for *EZH2* hot spot activating mutations



- Primary endpoint:** ORR
- Secondary endpoints:** DoR, PFS, safety/tolerability

Tazemetostat monotherapy: Activity in both mutant and wt EZH2 FL

- Tazemetostat was generally well tolerated
- No treatment-related deaths

SYMPHONY-1 Phase Ib: Tazemetostat + R² in R/R FL

- Phase Ib safety run-in analysis (stage 1) of international, randomized, double-blind phase Ib/III trial (median follow-up: 11.2 mo)
 - Stage 2: phase III design comparing tazemetostat at RP3D + R² vs placebo + R² in patients with R/R FL
 - Stage 3 (to be executed if stage 2 futility analysis finds that efficacy fails in overall population but is promising for *EZH2*-mutated subpopulation): in patients with *EZH2*-mutated R/R FL

Adults with R/R FL grades 1-3A;
tumor tissue for *EZH2* mut testing;
≥1 prior systemic CT, IO, or CIT;
prior HSCT, CAR T-cell tx permitted;
no prior lenalidomide, tazemetostat,
or other *EZH2* inhibitor;
measurable disease per Lugano;
ECOG PS 0-2
(N = 44)

Phase Ib: Dose Escalation (3 + 3 Design)

Tazemetostat 400/600/800 mg BID x 28-d cycles +
Rituximab 375 mg/m² IV on D1,8,15,22 of cycle 1,
then D1 of cycles 2-5 +
Lenalidomide 20 mg* PO QD on D1-21 of
28-d cycles x 12

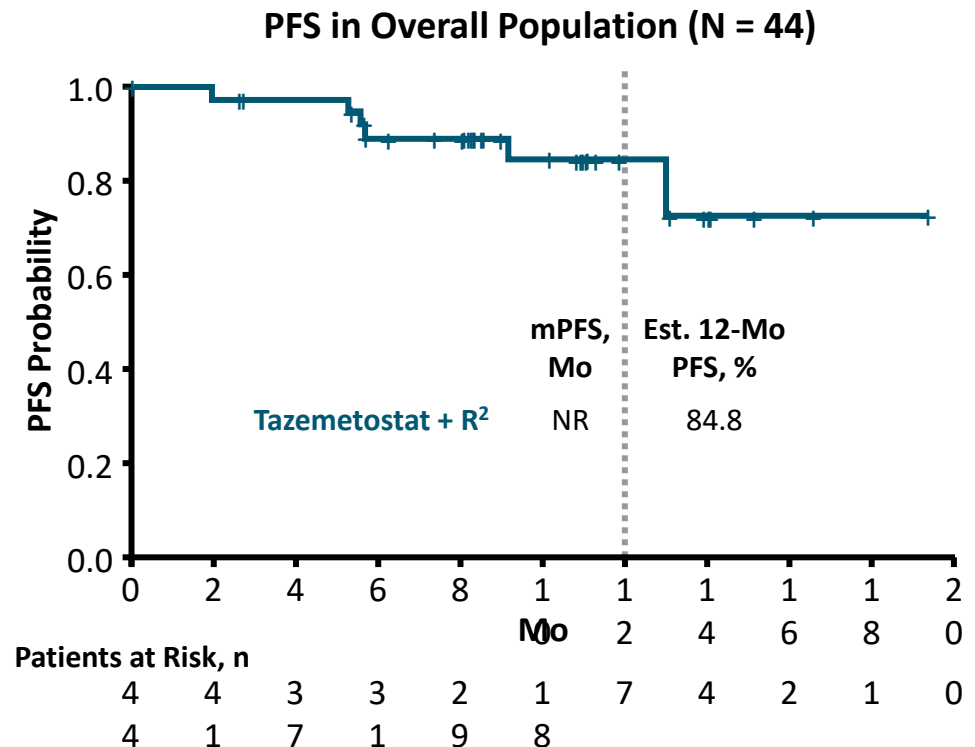
*10 mg if CrCl <60 mL/min.

- Primary endpoints:** safety/tolerability, tazemetostat RP3D
- Secondary endpoint:** safety PK parameters

SYMPHONY-1 Phase Ib: Efficacy in Overall Population

Response	Tazemetostat + R ² (n = 41)
ORR, n (%)	40 (97.6)
▪ CR	21 (51.2)
▪ PR	19 (46.3)
▪ SD	1 (2.4)
Median DoR, mo	NR

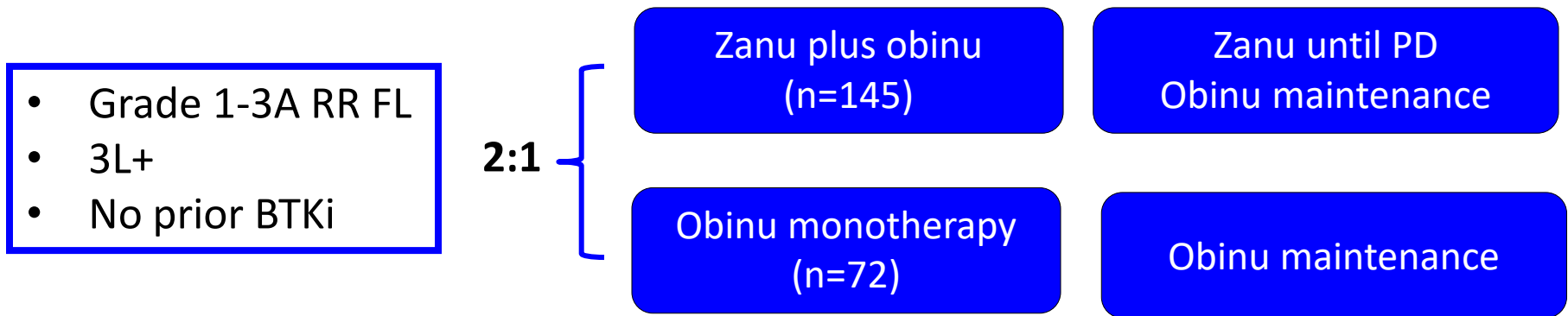
- At data cutoff (June 14, 2022), 56.8% (25/44) had treatment ongoing, 6.8% (3/44) had PD



SYMPHONY-1 Phase Ib: Efficacy by Subgroup

***RP2 is ONGOING
(including UChicago)***

ROSEWOOD: RP2 of Zanubrutinib plus Obinutuzumab vs. Obinutuzumab monotherapy in R/R FL



Dosing:

Zanubrutinib 160mg BID

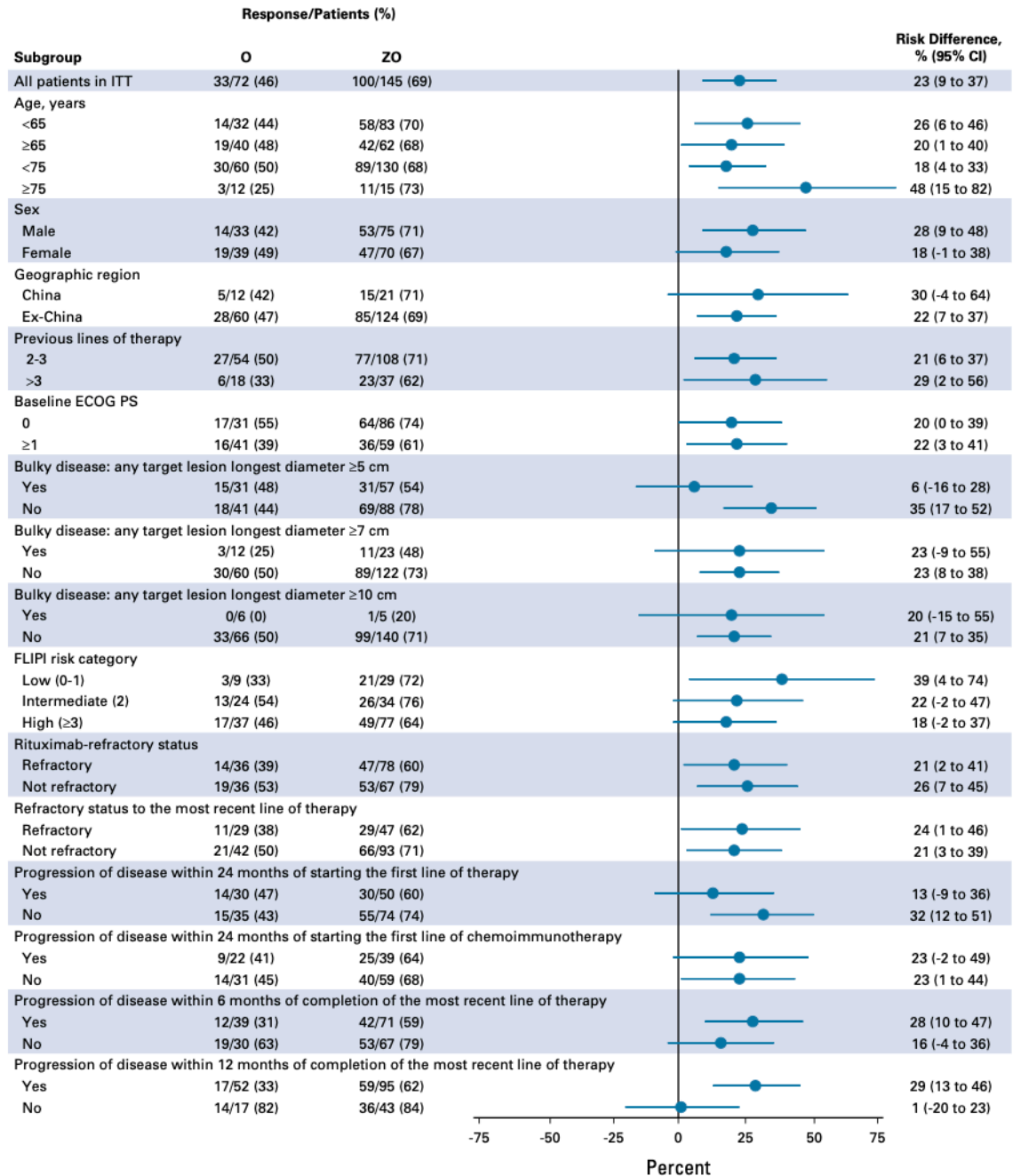
Obinu 1000mg IV C1D1, C1D8, C1D15 then D1 of C2-6,
then q8 weeks x 2y

Primary endpoint: ORR

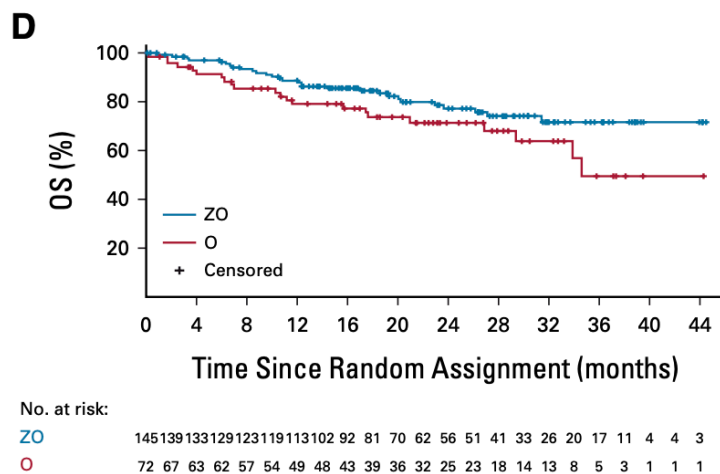
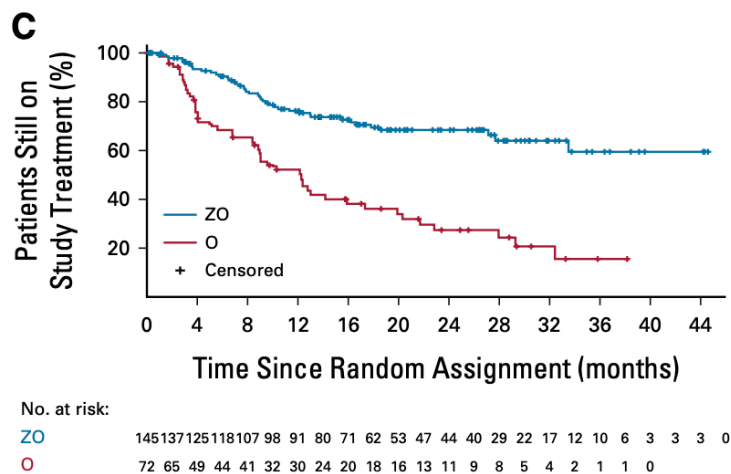
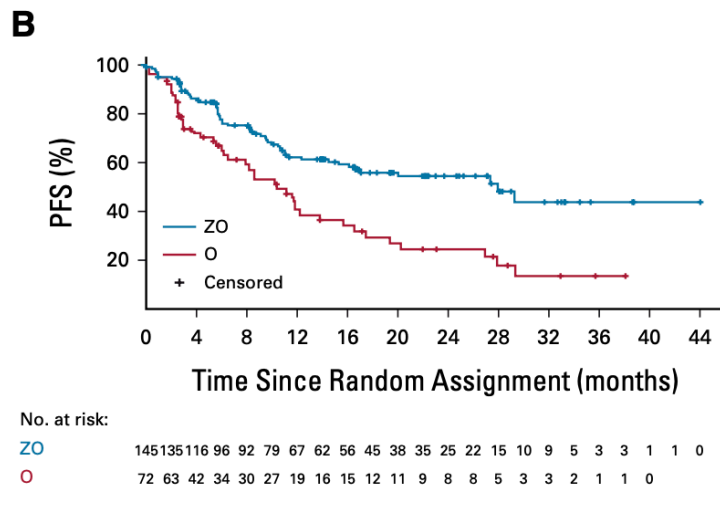
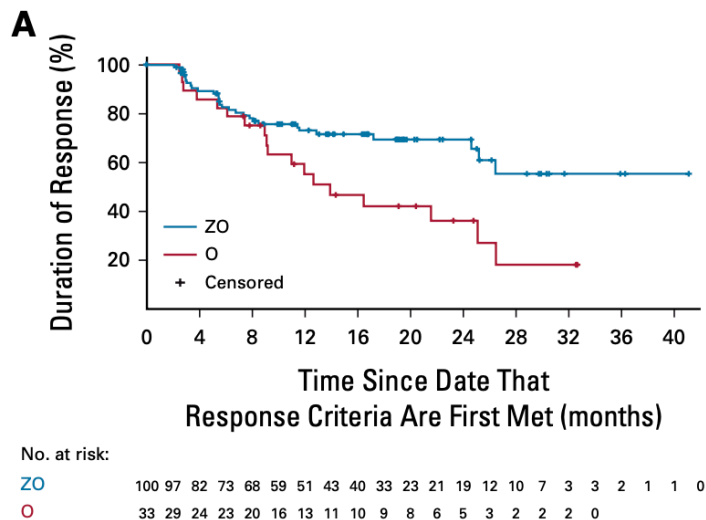
ROSEWOOD: Results

- Responses across most subgroups
- Lower response rates for bulky disease and early progressors

Zinzani J Clin Oncol 2023 Nov 20;41(33):5107-5117



ROSEWOOD: DR, PFS, TTNT, OS



Targeting CD19 in RR FL

inMIND: RP3 Double-Blind, Placebo-Controlled, International, Multicenter Study

- FL gr 1-3A or MZL
- 2L+

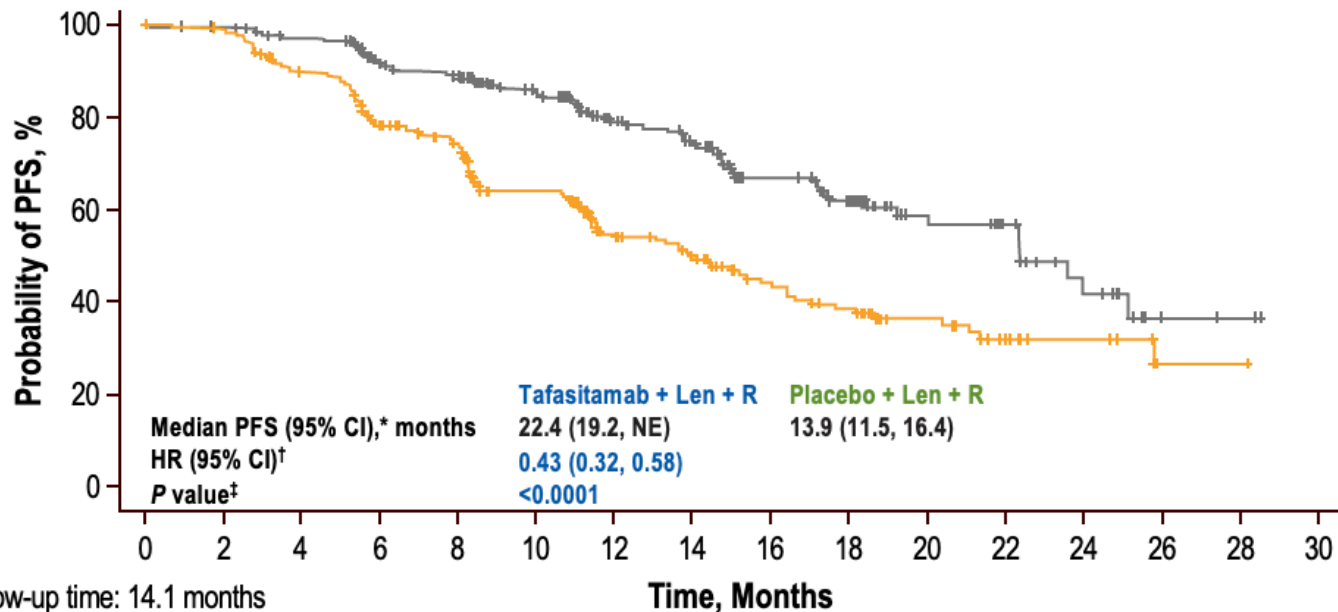
Primary endpoint: PFS

Relapsed/refractory status to last therapy, n (%)			
Relapsed	148 (54.2)	164 (59.6)	312 (56.9)
Refractory	112 (41.0)	97 (35.2)	209 (38.1)
Undetermined	13 (4.8)	14 (5.1)	27 (4.9)
Refractory to prior anti-CD20 therapy, n (%)	118 (43.2)	115 (41.8)	233 (42.5)

inMIND: PET-CR and ORR

Higher PET-CR rate and ORR was observed with tafasitamab arm (~10% difference via PET)

inMIND Primary Endpoint: PFS by Investigator Assessment



Median follow-up time: 14.1 months

No. at Risk

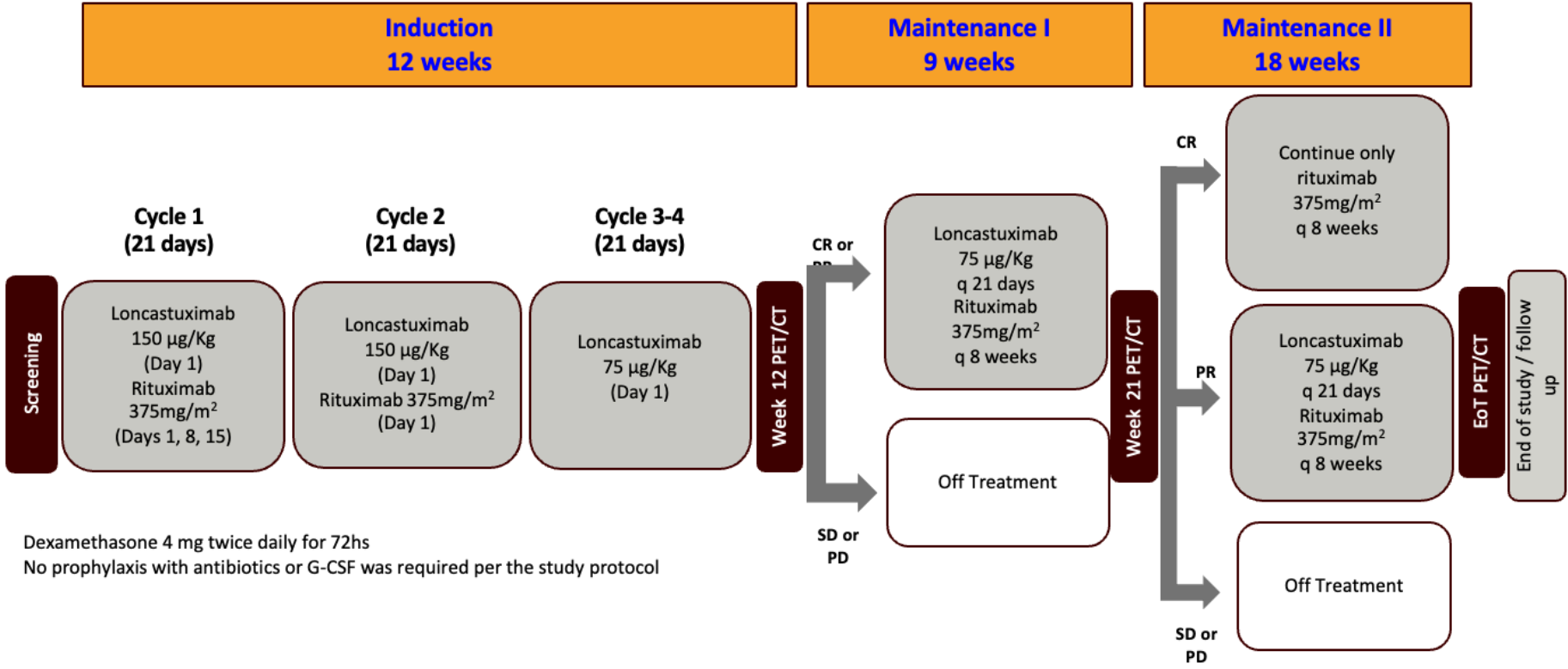
Tafasitamab + Len + R	273	261	250	212	200	164	119	103	71	57	30	22	12	3	2	0
Placebo + Len + R	275	265	235	192	173	126	82	70	48	40	26	16	10	2	2	0

Med PFS 22.4m vs. 13.9m

(p < 0.0001)

No diff in OS

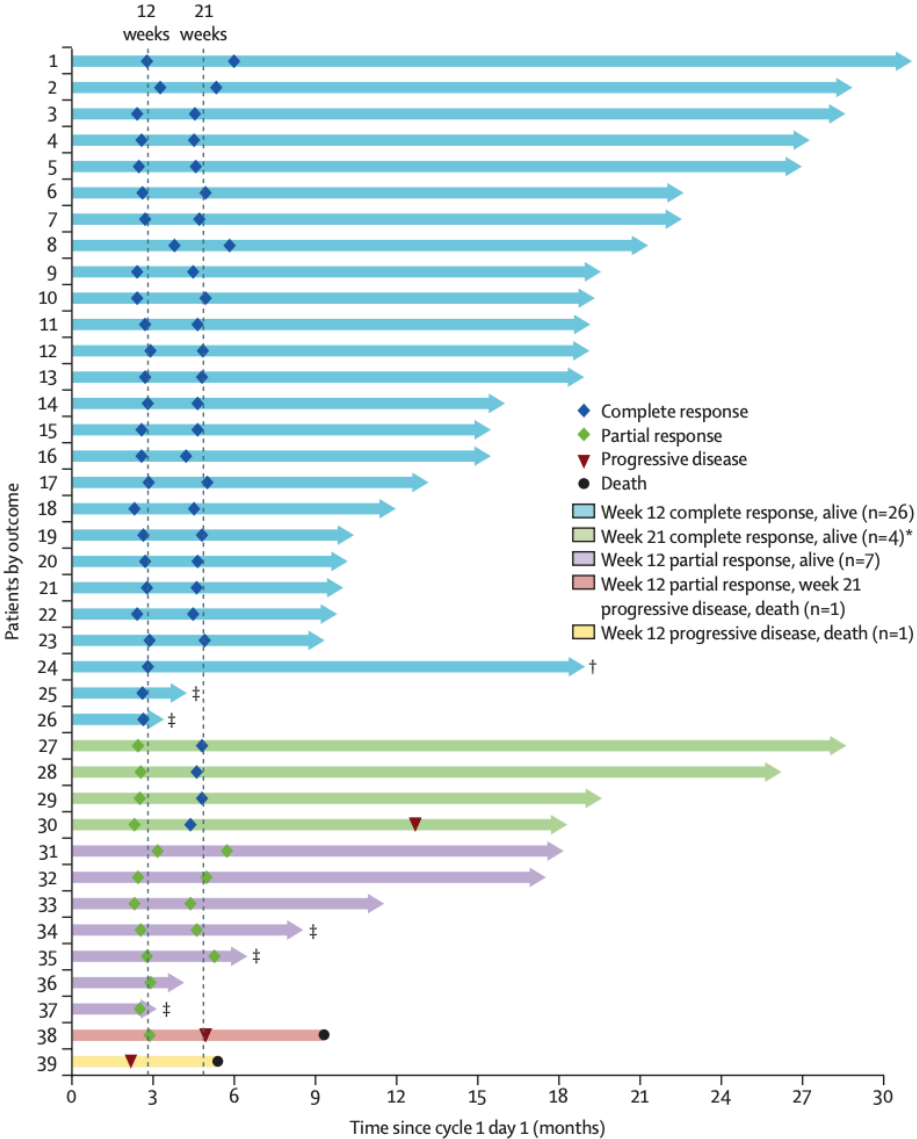
Loncastuximab tesarine plus rituximab: single arm, single center phase 2 study



Dexamethasone 4 mg twice daily for 72hs
 No prophylaxis with antibiotics or G-CSF was required per the study protocol

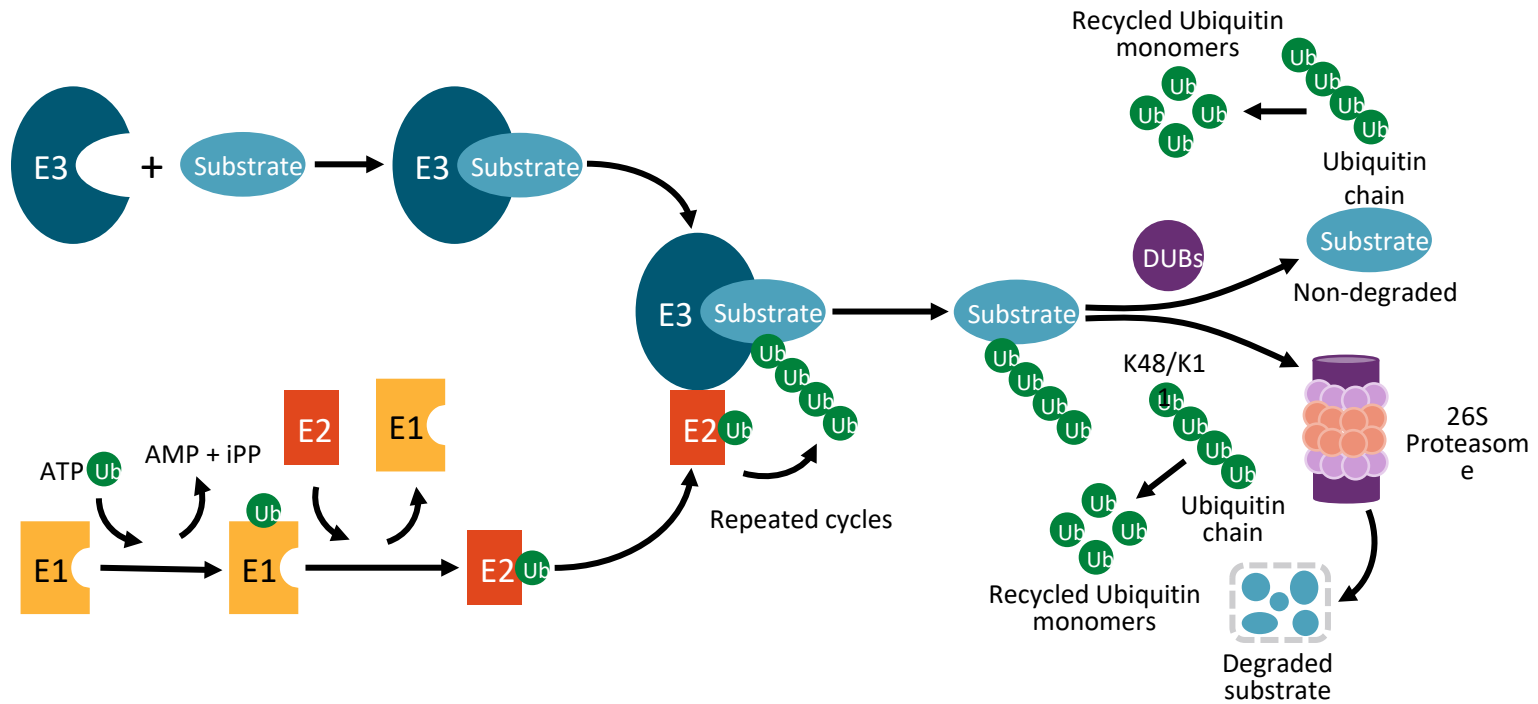


Loncastuximab plus rituximab in RR FL: Results



CeIMODs

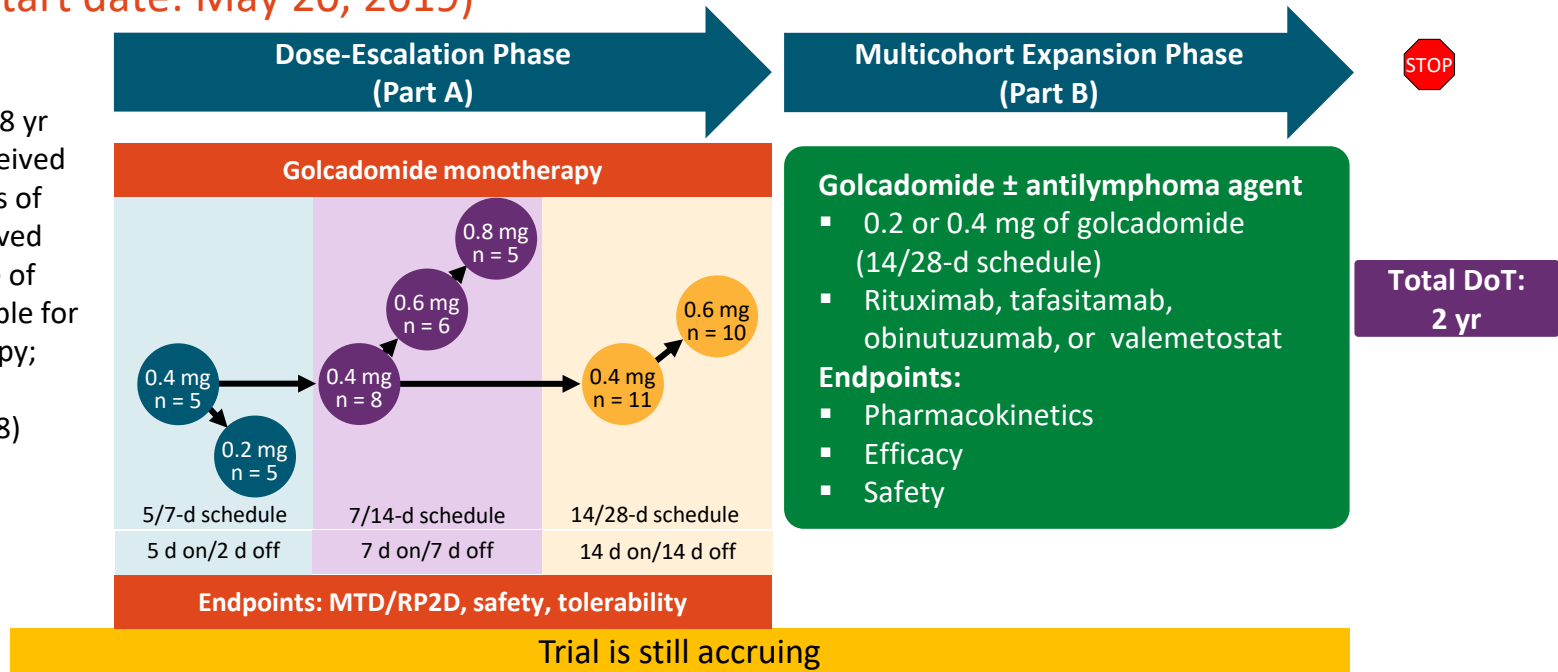
Ubiquitin-Proteasome System (UPS)



CC-99282-NHL-001: Phase I/II First-in-Human Trial of Golcadomide in R/R NHL

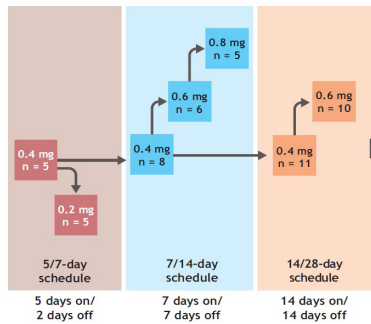
- Nonrandomized multicenter, 2-part, first-in-human, open-label phase I/II trial (study start date: May 20, 2019)

Patients aged ≥ 18 yr with R/R NHL; received ≥ 2 previous lines of therapy or received ≥ 1 previous line of therapy and ineligible for any other therapy; ECOG PS 0-2 (Target N = 438)

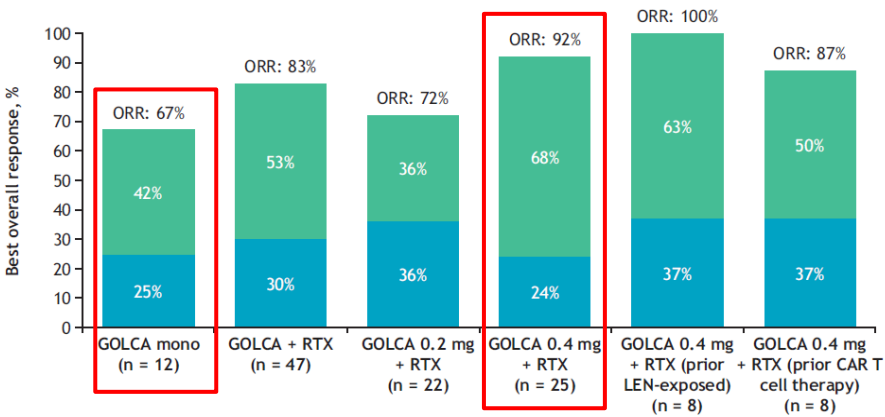
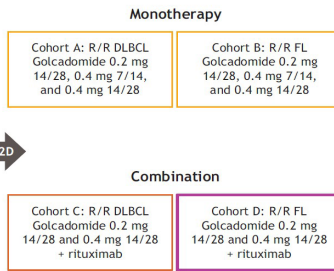


Golcadomide with or without rituximab R in 2L+ FL

Part A: Dose escalation Golca monotherapy



Part B: Dose expansion

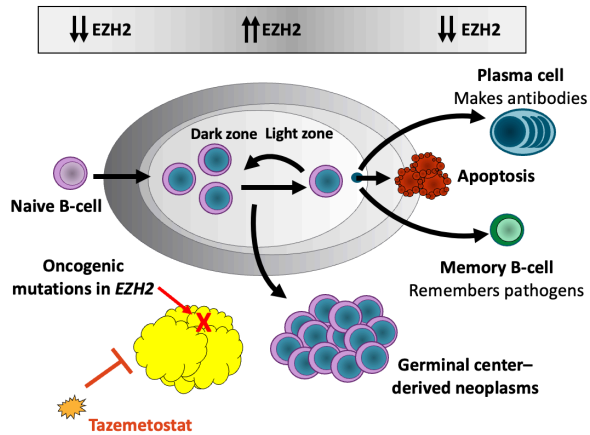


TRAE, n (%)	Part B / Rituximab combination			
	Golcadomide 0.2 mg (n = 22)		Golcadomide 0.4 mg (n = 34)	
	Any grade	Grade 3/4	Any grade	Grade 3/4
Patient with ≥ 1 TRAE	22 (100)	16 (73)	30 (88)	20 (59)
Neutropenia	15 (68)	12 (55)	17 (50)	15 (44)
Febrile neutropenia	1 (5)	1 (5)	3 (9)	3 (9)
Anemia	2 (9)	1 (5)	8 (24)	3 (9)
Thrombocytopenia	4 (18)	1 (5)	6 (18)	-
Pneumonia	3 (14)	2 (9)	3 (9)	1 (3)
Constipation	3 (14)	-	4 (12)	1 (3)
Vomiting	1 (5)	-	-	-
Nausea	3 (14)	-	1 (3)	-
Diarrhea	3 (14)	-	3 (9)	-
Fatigue	2 (9)	-	4 (12)	-
Asthenia	2 (9)	-	4 (12)	-
Pyrexia	-	-	1 (3)	-
Pruritus	2 (9)	-	4 (12)	-

NOVEL APPROACHES FOR R/R FL: A PREVIEW (approved and unapproved)

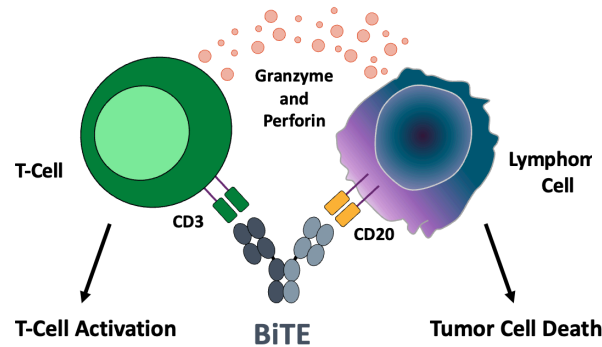
EZH2 inhibitors

Germinal Center Reaction



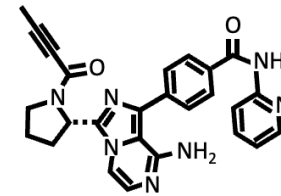
Bispecific agents

Cytokine Secretion

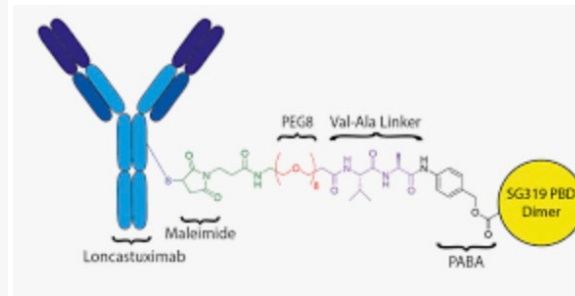
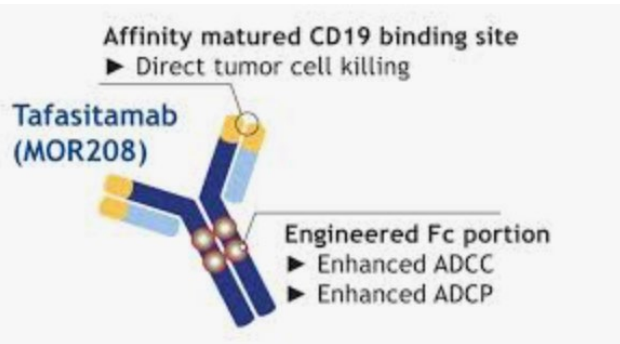
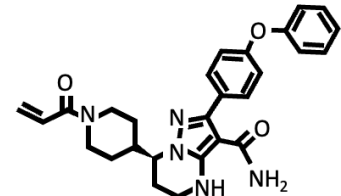


BTK inhibitors

Acalabrutinib



Zanubrutinib



antiCD19 moAb

AT THE FOREFRONT

UChicago
Medicine

antiCD19 ADC

CelMod



THANK YOU



*Opening
2027*

