



TG Therapeutics

NASDAQ: TGTX

33rd Annual JP Morgan Healthcare Conference
January 2015

Forward Looking Safe Harbor Statement



This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are often, but not always, made through the use of words or phrases such as “anticipates”, “expects”, “plans”, “believes”, “intends”, and similar words or phrases. Such statements involve risks and uncertainties that could cause TG Therapeutics’ actual results to differ materially from the anticipated results and expectations expressed in these forward-looking statements. These statements are only predictions based on current information and expectations and involve a number of risks and uncertainties. Actual events or results may differ materially from those projected in any of such statements due to various factors, including the risks and uncertainties inherent in clinical trials, drug development, and commercialization. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof. All forward-looking statements are qualified in their entirety by this cautionary statement and TG Therapeutics undertakes no obligation to update these statements, except as required by law.

Leaders in developing drugs for B-cell cancers – CLL and NHL
– as well as B-cell disorders (e.g. RA, MS, Lupus)

Pipeline designed for multiple combinations for best outcomes:

TG-1101 – Novel glycoengineered, anti-CD20 monoclonal antibody

- *Phase 3 in combination with ibrutinib pursuant to SPA*

TGR-1202 – Once-daily PI3K δ inhibitor

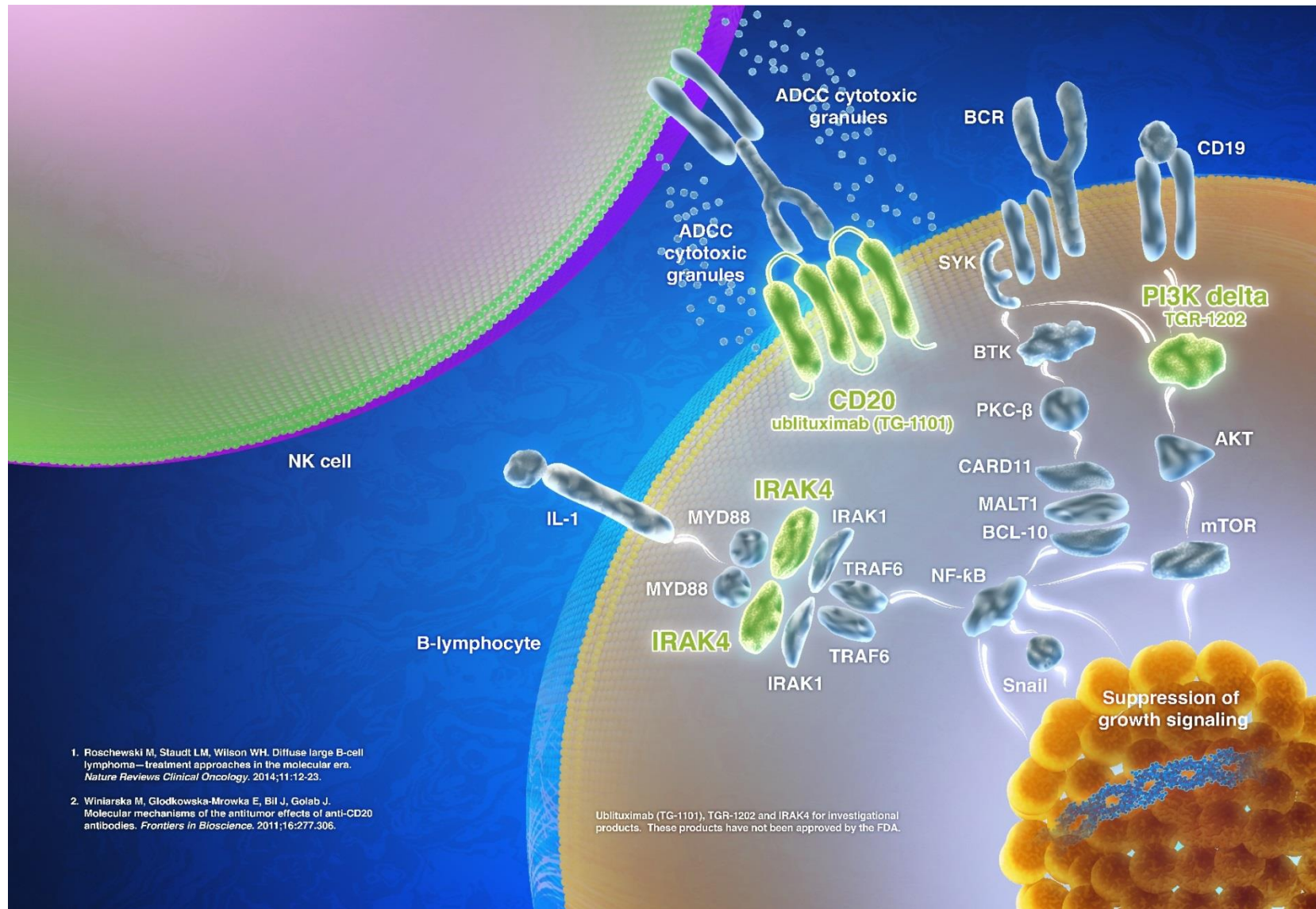
- *The only once-daily PI3K δ inhibitor devoid of observed liver toxicity to date*

IRAK4 – Key signaling pathway independent of B-cell receptor

- *Potential for synergistic combinations with other pipeline products*

The Malignant B-cell is the Enemy...

Attacking multiple targets for better outcomes



1. Roschewski M, Staudt LM, Wilson WH. Diffuse large B-cell lymphoma—treatment approaches in the molecular era. *Nature Reviews Clinical Oncology*. 2014;11:12-23.

2. Winiarska M, Glodkowska-Mrowka E, Bil J, Golab J. Molecular mechanisms of the antitumor effects of anti-CD20 antibodies. *Frontiers in Bioscience*. 2011;16:277-306.

Ublituximab (TG-1101), TGR-1202 and IRAK4 for investigational products. These products have not been approved by the FDA.

▪ **TG-1101 Profile:**

- Novel protein sequence; targets distinct epitope on CD20
- Glycoengineered for enhanced activity
 - 50-100x the ADCC effects of RTX
 - Comparable to GA101 in indirect comparisons
 - Roche has previously reported superiority of GA101 based regimen vs. Rituxan in CLL
- Demonstrated Single Agent activity in relapsed/refractory NHL & CLL with favorable safety profile
 - ~50% ORR in patients with CLL

TGR-1202, a novel PI3k-Delta inhibitor with best in class attributes



▪ TGR-1202 Profile:

- Highly selective for Delta with low nanomolar potency; pre-clinical activity profile similar to Idelalisib
- Once per day dosing; prolonged half-life maintains target exposure over 24-hour period
- ***No single-agent drug related hepatotoxicity seen to date***; low incidence of GI toxicity and neutropenia, well-suited for multi-drug combinations
- Highly active with ~90% of CLL patients achieving nodal PR and ~50% ORR in CLL patients

TG-1101 + ibrutinib - Safety



All Causality AE's in > 5% of Patients (n=54)		
Adverse Event	All Grades n (%)	Grade 3/4 n (%)
Infusion reaction	18 (33%)	3 (6%)
Diarrhea	15 (28%)	2 (4%)
Fatigue	14 (26%)	1 (2%)
Rash	11 (20%)	2 (4%)
Bruising	8 (15%)	-
Nausea	8 (15%)	-
Mucositis	8 (15%)	-
Cough	7 (13%)	-
Edema	7 (13%)	-
Fever	6 (11%)	-
Thrombocytopenia	6 (11%)	2 (4%)
Neutropenia	3 (6%)	3 (6%)

- All rash and Grade 3/4 diarrhea events deemed related to ibrutinib per investigator assessment.

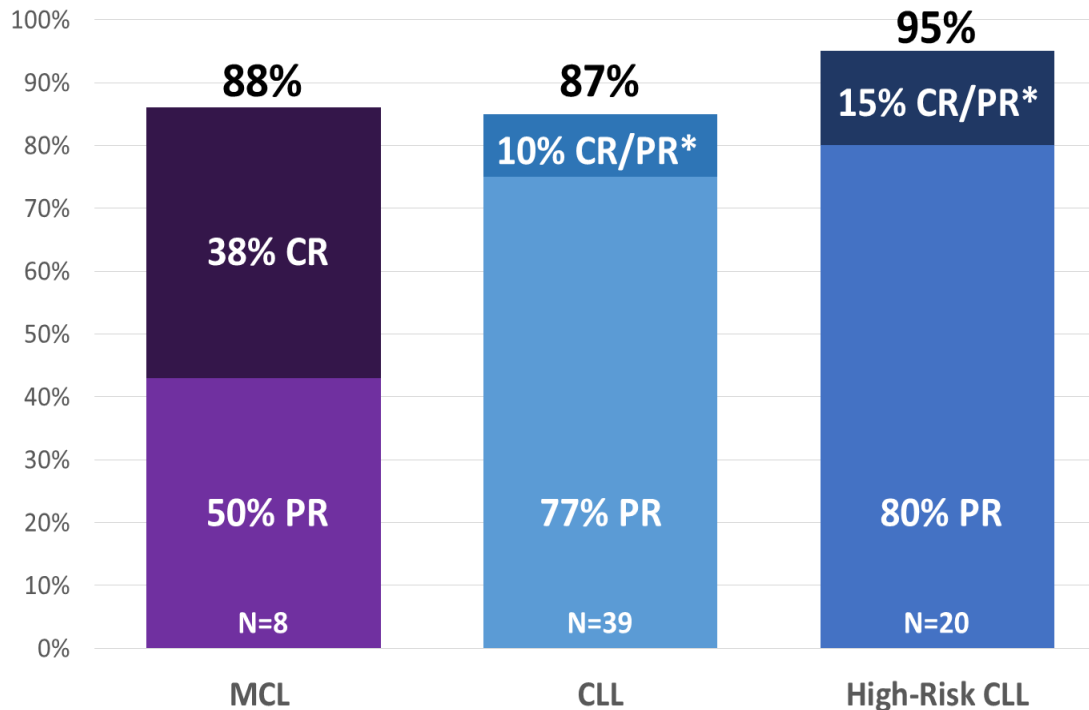
Dose Reductions & Treatment Discontinuations

- Ibrutinib dose reduced in 4 patients (diarrhea, rash, cough, fatigue)
- No patients had their ublituximab dose reduced
- 2 patients discontinued due to ibrutinib related AEs (rash, diarrhea)
- 2 patients discontinued due to non-related AEs (pre-existing AE's)

TG-1101 + ibrutinib - Efficacy



Best Overall Response Rate



From ibrutinib label:

The ORR was **58.3%** (95% CI: 43.2%, 72.4%), all partial responses.

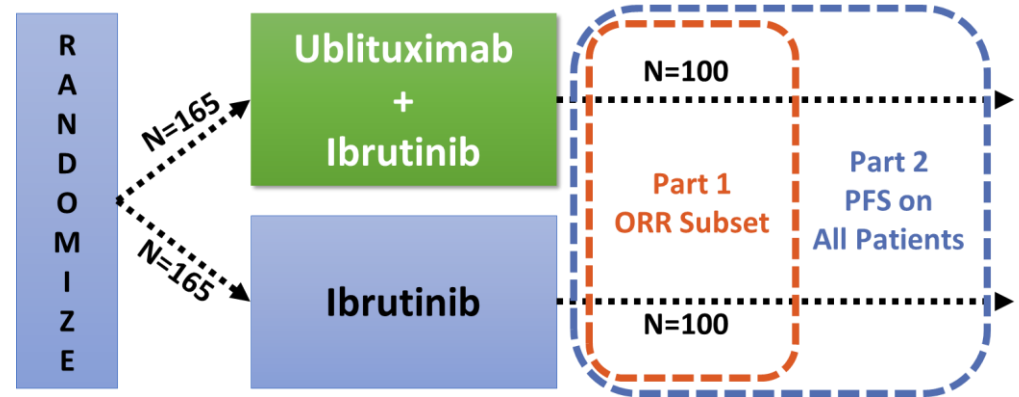
None of the patients achieved a complete response

- 30% of patients were considered anti-CD20-refractory, progressing on or within 6 months of an anti-CD20 based regimen
- Prior anti-CD20 therapy included rituximab, ofatumumab, and obinutuzumab
- In contrast to *in-vitro* reports, it does not appear that ibrutinib antagonized the ADCC effects of TG-1101

TG-1101 + ibrutinib - Phase III Clinical Trial



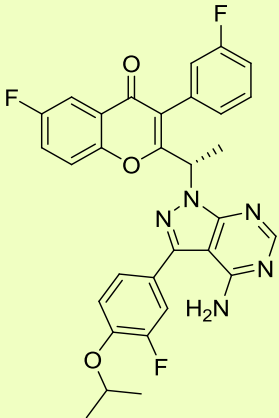
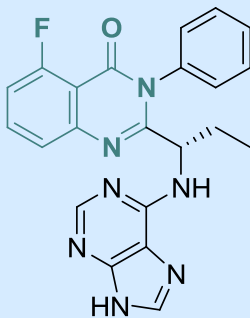
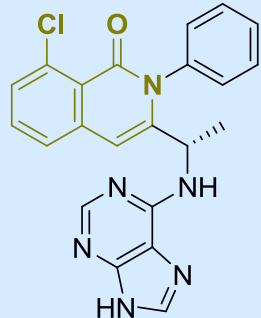
GENUINE (UTX-IB-301) Study Schema



- Design, Endpoints, and Statistics agreed to via Special Protocol Assessment (SPA)
- Enrolling ~330 patients with high-risk CLL, *anticipated 18-24 months to complete*
- ORR amongst first 200 patients for accelerated approval
- PFS amongst all enrolled patients for full approval
- Study Chair: Dr. Jeff Sharman

TGR-1202: Novel PI3K δ (delta) Inhibitor



TGR-1202	Idelalisib (GS-1101)	Duvelisib (IPI-145)
 <chem>COC1=CC=C(C=C1OC2=CC=C(C=C2)N)N3C(=N)N(C3)C4=CC(=C(C=C4)F)C(=O)OC5=CC=C(C=C5)F</chem>	 <chem>CC[C@@H](N)C1=NC2=NC=NC=C2N1C(=O)N3C=CC=C3F</chem>	 <chem>CC[C@@H](N)C1=CC=C(C=C1)N2C(=O)C3=CC=C(C=C3)Cl2</chem>
QD	BID	BID

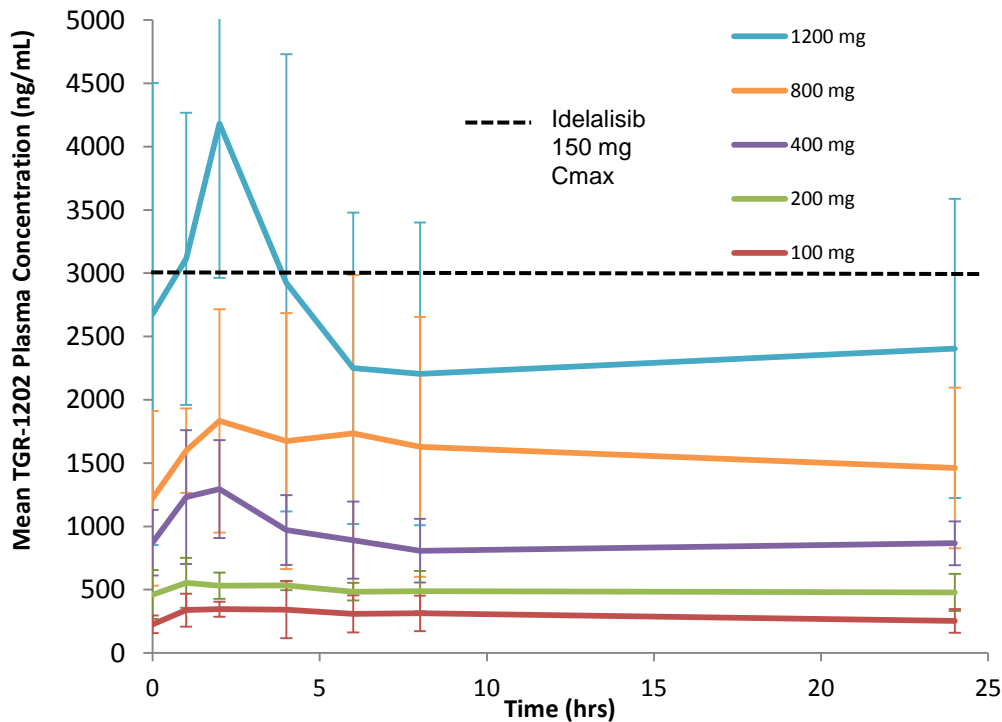
- PK profile that allows once-daily oral dosing
- Absence of hepatic toxicity in rel/ref hematologic malignances¹
- 93% nodal PR rate in patients with rel/ref CLL¹
- Dose escalation ongoing—dose-response relationship observed¹

TGR-1202 - PK (as presented JPM '14)

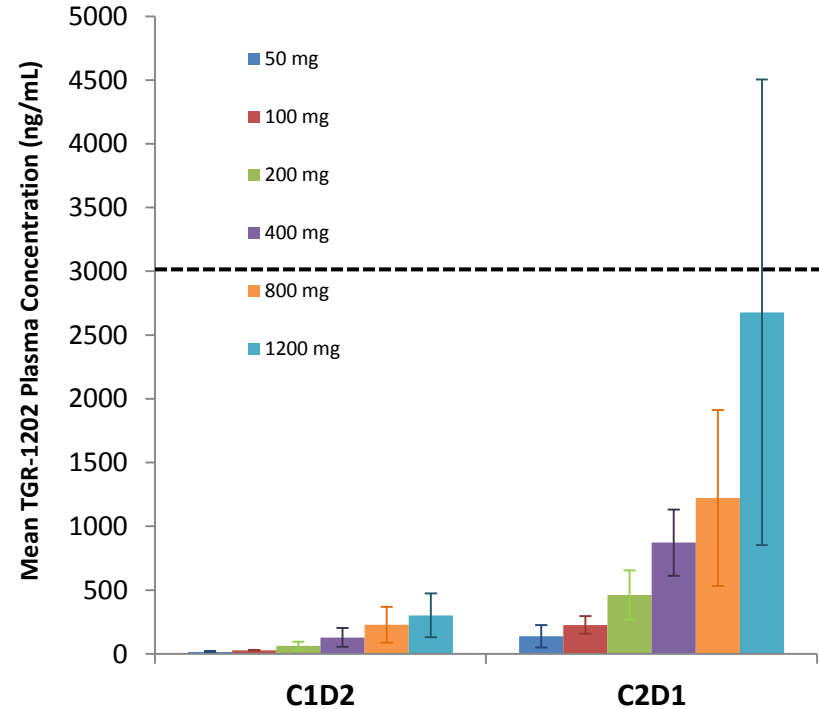


- **Poster Presented at ASH, December 2013**
- Well tolerated to date – no unexpected safety issues
- PK data so far continues to support once-daily dosing

Steady State (C2D1) 24-hr Plasma Concentrations



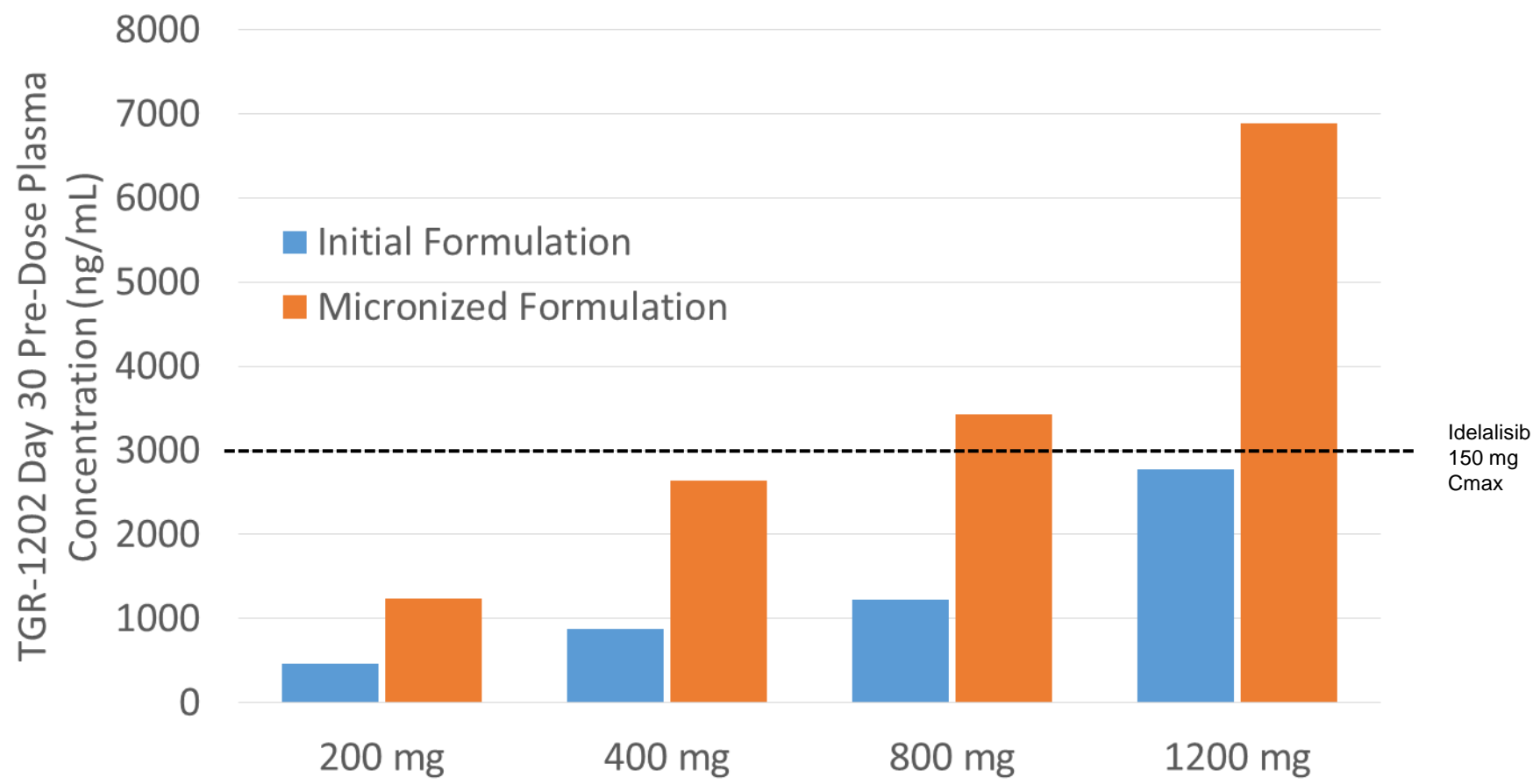
Pre-Dose Plasma Concentrations



Single Agent TGR-1202 Pharmacokinetics



Initial Formulation (Fasting) vs. Micronized Formulation (Fed State)

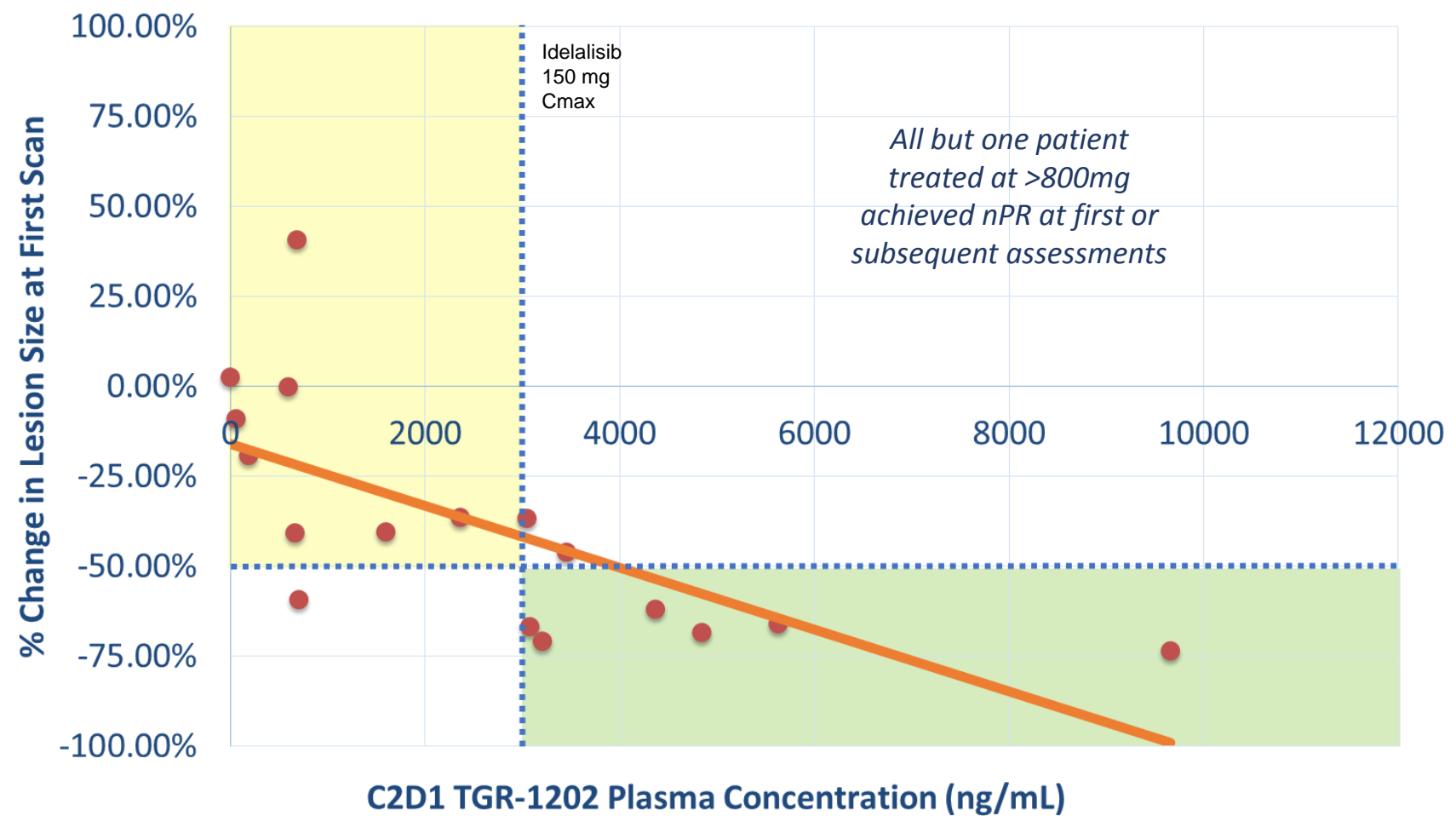


Single Agent TGR-1202

Exposure Response Relationship in CLL



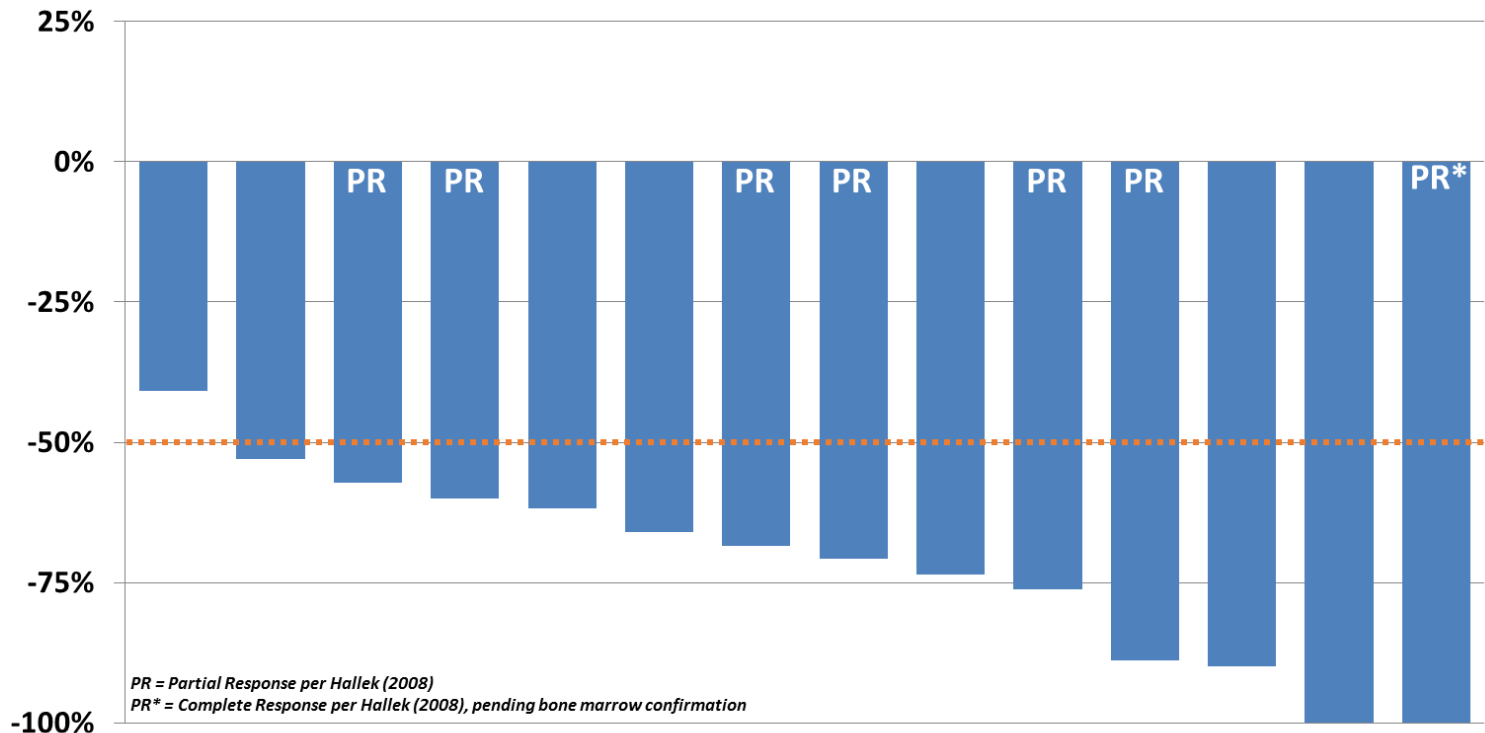
Pre-Dose Plasma Concentration (Day 30) vs. First Scan Measurement (Day 60)



Single Agent TGR-1202 Efficacy in CLL



Best Percent Change from Baseline in Nodal Size Evaluable CLL Patients Treated at ≥ 800 mg of Initial Formulation or any Dose of Micronized Formulation



- ❖ 93% of CLL patients (13/14) treated at 800mg or higher achieved a nodal PR (median nodal reduction of 70%)
- ❖ Nodal reductions have been shown to improve with time on TGR-1202

TGR-1202 - Safety



All Events (All Causality) in >10% (n=55)				
	All Grades		Grade 3/4	
	Events	%	Events	%
Diarrhea	17	31%	1	2%
Nausea	16	29%	-	-
Fatigue	14	25%	-	-
Cough	13	24%	-	-
Anorexia	11	20%	-	-
Headache	10	18%	-	-
Vomiting	10	18%	-	-
Rash	9	16%	2	4%
Neutropenia	8	15%	7	13%
Constipation	6	11%	-	-
Dyspnea	6	11%	2	4%
Thrombocytopenia	6	11%	4	7%

- ❖ No drug related hepatotoxicity, colitis, or pneumonitis observed to date
- ❖ Only 2 patients (< 4%) have come off study due to an adverse event (one unrelated, one possibly related)

Room for Improvement...

Idelalisib Prescribing Information **July 2014**

“Avoid concurrent use of Zydelig with other drugs that may cause liver toxicity.

Monitor ALT and AST in all patients every 2 weeks for the first 3 months of treatment, every 4 weeks for the next 3 months, then every 1 to 3 months thereafter. Monitor weekly for liver toxicity if the ALT or AST rises above 3 times the upper limit of normal until resolved...”

WARNING: FATAL AND SERIOUS TOXICITIES: HEPATIC, SEVERE DIARRHEA, COLITIS, PNEUMONITIS, and INTESTINAL PERFORATION

See full prescribing information for complete boxed warning.

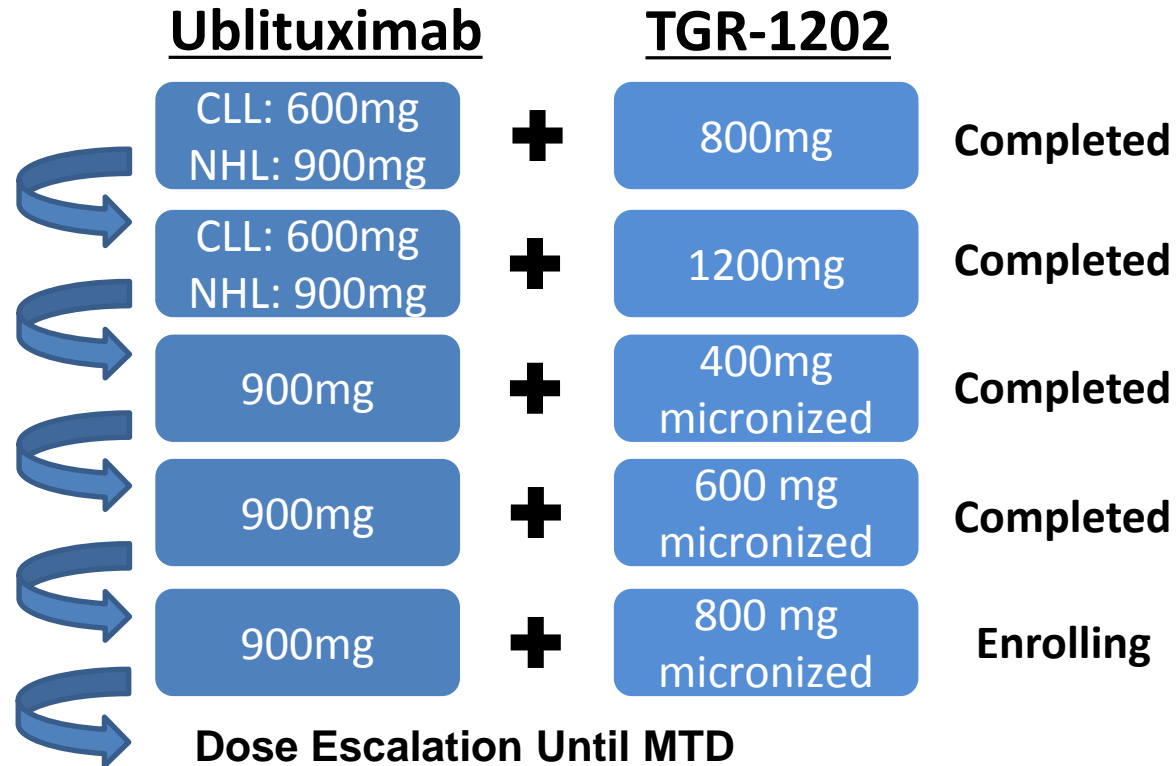
- **Fatal and/or serious hepatotoxicity** occurred in 14% of Zydelig-treated patients. Monitor hepatic function prior to and during treatment. Interrupt and then reduce or discontinue Zydelig. (5.1)
- **Fatal and/or serious and severe diarrhea or colitis** occurred in 14% of Zydelig-treated patients. Monitor for the development of severe diarrhea or colitis. Interrupt and then reduce or discontinue Zydelig. (5.2)
- **Fatal and serious pneumonitis can occur in Zydelig-treated patients.** Monitor for pulmonary symptoms and bilateral interstitial infiltrates. Interrupt or discontinue Zydelig. (5.3)
- **Fatal and serious intestinal perforation can occur in Zydelig-treated patients across clinical trials.** Discontinue Zydelig if intestinal perforation is suspected. (5.4)

Clinical Trials in Chronic Lymphocytic Leukemia
Serious adverse reactions were reported in 54 (49%) subjects treated with Zydelig + rituximab

Clinical Trials in Non-Hodgkin’s Lymphoma
Adverse reactions resulted in **interruption or discontinuation for 78 (53%)** subjects

Trial Design/Demographics

TGR-1202 + Ublituximab



- Enrolling B-cell NHL and CLL/SLL
- No limit on prior therapies, incl. prior BTK and/or PI3K

- 67% of CLL had 17p and/or 11q del
- Median Prior Tx in FL: 5 (range 1 – 9)
- 5/7 DLBCL with Germinal Center (GCB)

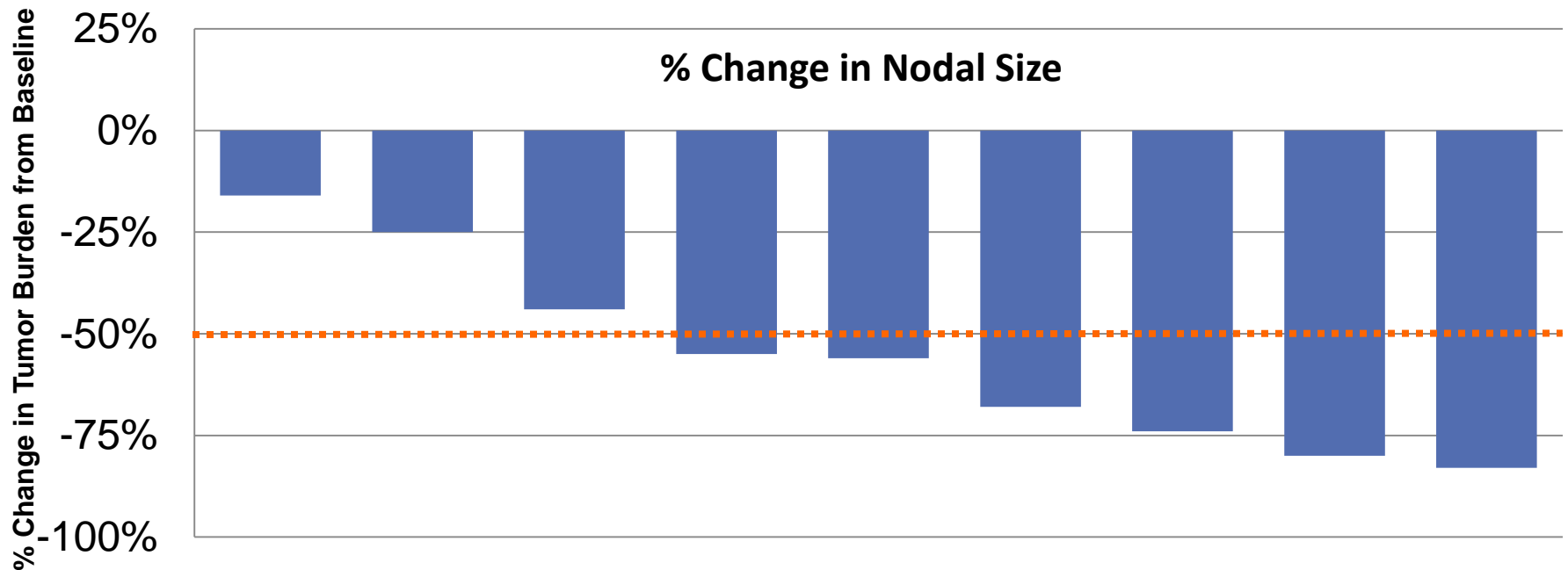
Safety: TGR-1202 + Ublituximab



Adverse Events in $\geq 10\%$ (All Causality) $n=27$

Adverse Event	All Grades n (%)	Grade 3/4 n (%)
Infusion reaction	14 (52)	1 (4)
Neutropenia	11 (41)	9 (33)
Nausea	10 (37)	-
Diarrhea	9 (33)	-
Fatigue	8 (30)	-
Insomnia	8 (30)	-
Dyspnea	6 (22)	1 (4)
Cough	5 (19)	-
Back Pain	4 (15)	-
Constipation	4 (15)	-
Sinusitis	4 (15)	-
Vomiting	4 (15)	-
Abdominal Pain	3 (11)	1 (4)
Fever	3 (11)	2 (7)
Upper Resp Inf	3 (11)	-

Interim Data From Early Dose Escalation Cohorts (Does not include patients at ≥ 600 mg micronized)

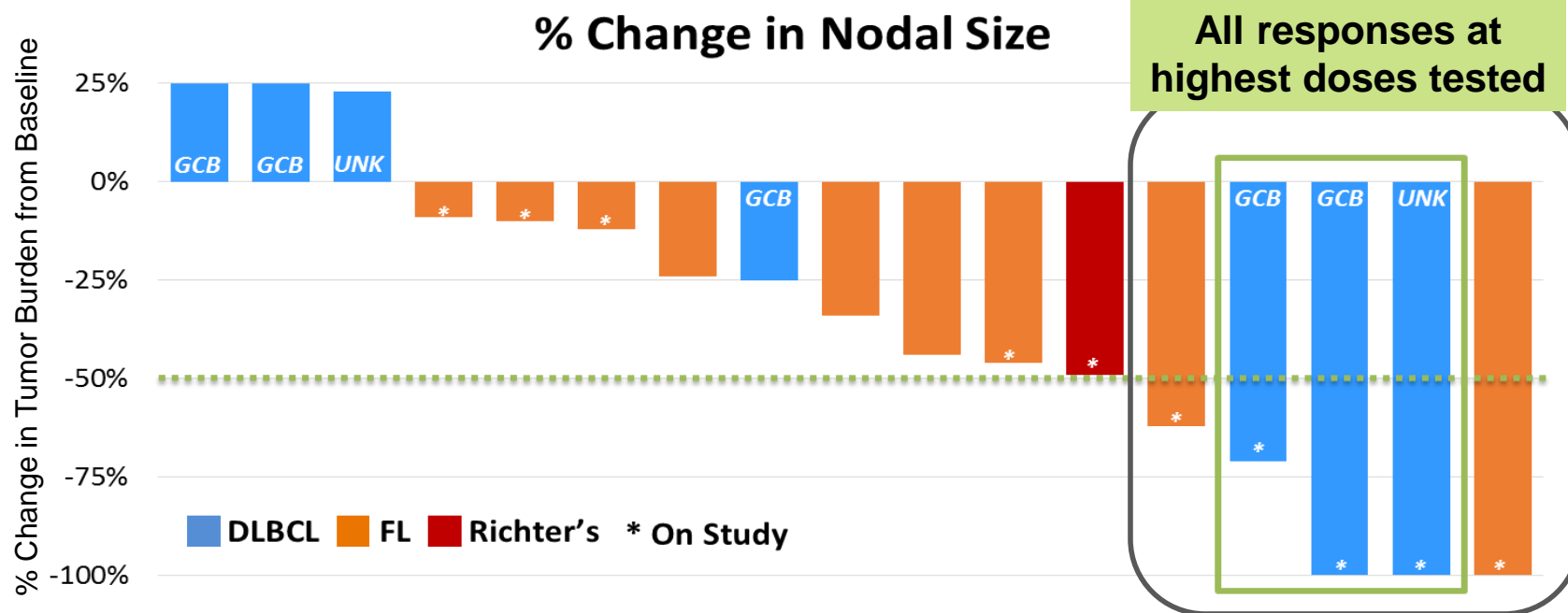


- 67% PR rate iwCLL (Hallek 2008)
- 6/9 patients with 17p and/or 11q
- **All CLL patients remain on study (3+ to 9+ months)**

Activity in NHL: TGR-1202 + Ublituximab



Interim Data From Early Dose Escalation Cohorts

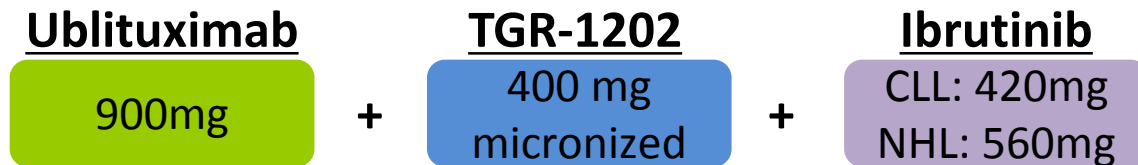


- FL: 1 PET(-) CR and 1 PR
 - 78% of FL (N=9) patients have not progressed on study
- DLBCL: ORR 43% (3/7);
 - 2 CR's confirmed by independent radiologic review
 - Responders remain on study > 7 months

“Triplet”: TGR-1202 + Ublituximab + Ibrutinib



- Initial cohorts for both NHL and CLL (n=5)



- Safety: All Grade 1/2 AEs (no Grade 3/4 events to date)

Clinical Response at First Assessment (8 Weeks)

Histology	Description	Prior # Rx	Prior Ibrutinib	Rel/Ref	Rituximab Refractory	Response	% ↓
Follicular	Stage IV	4	Refractory	Refractory	Yes	PR	74%
MCL	Advanced	2	No	rAuto txp	No	CR	PET -
Richter's	17p	3	No	Refractory	Yes	PD	N/A
CLL	17p	2	No	Refractory	Yes	Too Early	N/A
Follicular	Stage IV	1	No	Refractory	Refractory	Too Early	N/A

2014 Milestones *(as presented at JPM)*



Q1 2014	Commence TG-1101 plus Ibrutinib combo trial in CLL	✓
1H 2014	Determine optimal dosing for TGR-1202 as single agent	
1H 2014	Enroll combo studies: 1101/1202 and Ibrutinib in CLL/MCL	✓
Q2 2014	Present preliminary data from combo trials	✓
Q2 2014	Present updated single agent data for TG-1101 and TGR-1202	✓
2H 2014	Commence combination registration trial(s)	✓
Q4 2014	Present updated combo data	✓

2015 Milestones



Q1 2015	Commence Phase 3 trial of TG-1101 plus Ibrutinib in High-Risk CLL
1H 2015	Initiate 2nd Phase 3 clinical trial
1H 2015	Present updated clinical data at ASCO, EHA & Lugano
2H 2015	Initiate at least one additional triple therapy clinical trial
2H 2015	Initiate first clinical trial in Autoimmune Diseases
2H 2015	Advance IRAK-4 inhibitor program into the clinic
2H 2015	Initiate a 3rd Phase 3 clinical trial
Q4 2015	Present updated clinical data at ASH 2015

Key Financial Statistics

Ticker:

TGTX (NasdaqCM)

Price:

\$14.98 (close as of January 14, 2014)

Shares:

~44M (Primary); ~48M (fully-diluted)

Cash:

~\$93.4M (pro forma as of September 30, 2014)

Burn:

\$4-\$6M per quarter

Time:

2+ years of cash

- **TG-1101 Phase 3 in Combination with ibrutinib**
 - High probability of success, supported by strong Phase 2 data
 - Conducted pursuant to SPA
 - Very attractive regimen: tolerability and efficacy
- **Proprietary combination entering Phase 3 in 2015**
 - Safety and efficacy profile at higher doses could be best-in-class combination across CLL and NHL
 - Pricing leverage
- **Additional upside in autoimmune diseases and leadership in next generation triple therapy**
 - BTK underway, IRAK4 before YE, others?



TG Therapeutics

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