TERNS
PHARMACEUTICALS

# Interpreting Early CML Datasets and Highlighting the TERN-701 Opportunity

NASDAQ: TERN

**August 2024**

# Forward-Looking Statements and Disclaimers

This presentation contains forward-looking statements about Terns Pharmaceuticals, Inc. (the “Company,” “we,” “us,” or “our”) and its industry that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this presentation, including but not limited to statements regarding beneficial characteristics and potential therapeutic effects of our product candidates and compounds, projections of market potentials and industry trends, discussions of timelines and expectations related to our product candidates and clinical trials, including with respect to potential trial design, milestones and the availability of data, as well as information about the Company objectives or other prospects, and plans, are forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as “aim,” “anticipate,” “assume,” “believe,” “contemplate,” “continue,” “could,” “design,” “due,” “estimate,” “expect,” “goal,” “intend,” “may,” “objective,” “plan,” “positioned,” “potential,” “predict,” “seek,” “should,” “target,” “will,” “would” and other similar expressions that are predictions of or indicate future events and future trends, or the negative of these terms or other comparable terminology. The Company has based these forward-looking statements largely on its current expectations, estimates, forecasts and projections about future events and financial trends that it believes may affect its financial condition, results of operations, business strategy and financial needs.

In light of the significant uncertainties in these forward-looking statements, you should not rely upon forward-looking statements as predictions of future events. Although the Company believes that it has a reasonable basis for each forward-looking statement contained in this presentation, it cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or will occur at all. These risks are not exhaustive. For a detailed discussion of the risk factors that could affect our actual results, please refer to the risk factors identified in our Securities and Exchange Commission ("SEC") reports, including but not limited to our Annual Report on Form 10-K for the year ended December 31, 2023. New risk factors emerge from time to time and it is not possible for our management to predict all risk factors, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in, or implied by, any forward-looking statements. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this presentation.

This presentation discusses product candidates that are investigational only and have not yet been approved for marketing by the U.S. Food and Drug Administration. No representation is made as to the safety or effectiveness of these product candidates for the use for which such product candidates are being studied. Data presented for our product candidates and other agents are not based on head-to-head trials and are based on publicly available data, which include cross-trial and/or cross-phase data and information.

# Agenda and Participants

- **Opening Remarks** / Amy Burroughs
- **Interpreting Early CML datasets** / Emil Kuriakose
- **TERN-701 Opportunity and Next Steps** / Amy Burroughs
- **Fireside Chat with CML KOL** / Andreas Hochhaus & Emil Kuriakose
- **KOL and Management Q&A** / Andreas Hochhaus, Amy Burroughs & Emil Kuriakose

TERNS
PHARMACEUTICALS

**Our Mission:** Developing small molecule medicines, with clinically validated mechanisms of action, to address oncology and metabolic diseases with large unmet medical need

# Chronic Myeloid Leukemia (CML) is a Chronic Indication with Remaining Significant Unmet Need

## CML is a chronic, established indication…

- ~10K new cases diagnosed in the U.S.[1]
- U.S. CML prevalence today is ~110K and is expected to triple by 2040[2]
- Patients responding to treatment have a life expectancy almost the same as the general population
- Majority of patients will take tyrosine kinase inhibitor (TKI) therapy for life[3]

## … however, an unmet need still exists[4]

- ~40% of CML patients switch therapy by 5 years due to intolerance, resistance, etc.
- ~Half of patients do not achieve deep molecular response (DMR) by 4 years after switching to a second treatment
- Chronic use of active-site TKIs are associated with multiple adverse events due to off target effects (e.g., pleural effusion, CV, GI)

CV: cardiovascular; GI: gastrointestinal

1. American Cancer Society. (Jan 2024) Key Statistics for Chronic Myeloid Leukemia, (Aug 2024); 2. Jabbour E, Kantarjian H. Am J Hematol. (Sep 2022);97(9):1236-1256.
3. Bower H., et al. Journal of Clinical Oncology (Aug 2016);34(24):2851-7; 4. Novartis ASCO 2024 Investor Event

# Allosteric Inhibitors Represent the Latest Evolution in the CML Treatment Paradigm

## CML Drug Development by Decade

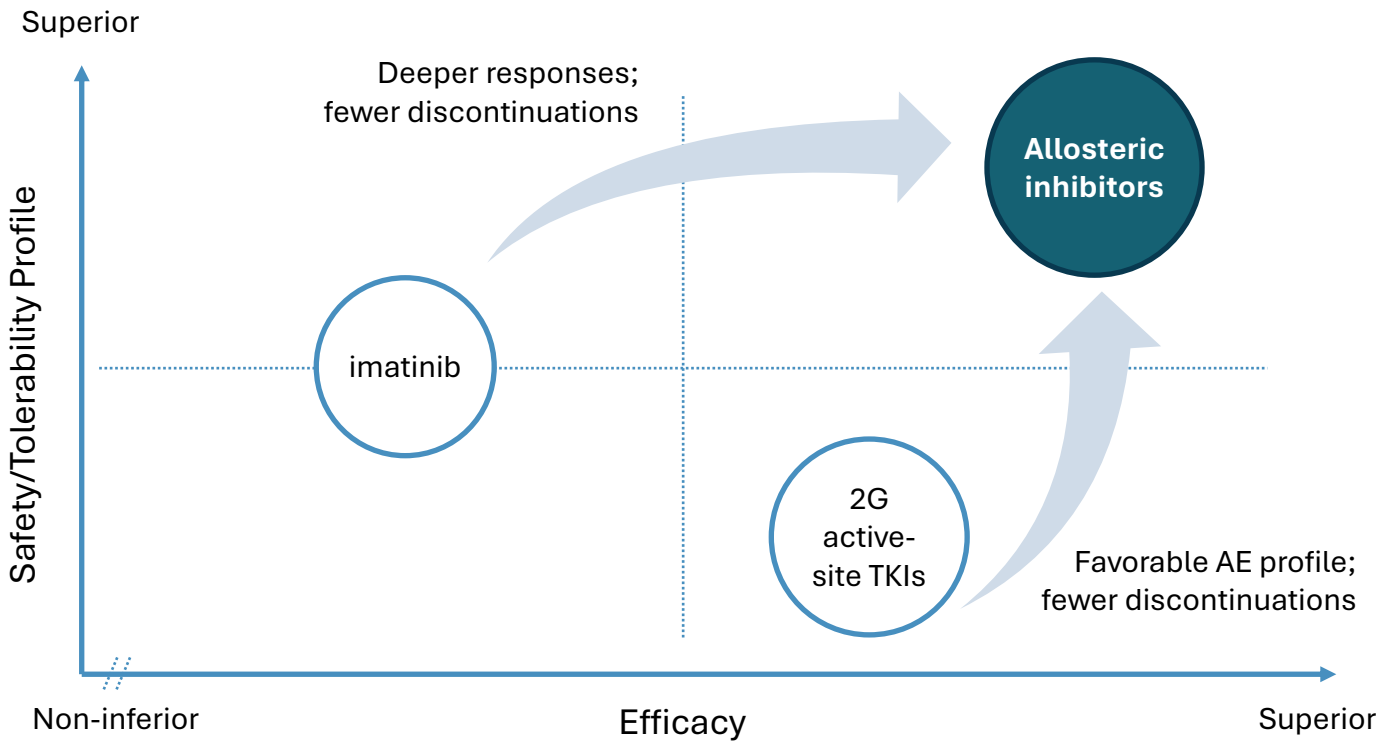
**2000** Imatinib (1G active-site TKI) transforms CML into a chronic condition

**2010** 2G active-site TKIs improve upon efficacy but with less favorable safety/tolerability

**2020** Asciminib is the first approved allosteric BCR-ABL inhibitor, a novel, superior MoA for CML

*Next generation allosteric BCR-ABL inhibitors are the latest class to transform the CML treatment paradigm*

## Opportunity for Next Generation, Allosteric BCR-ABL Inhibitors[1]




Per Novartis ASCO Investor Event | June 2, 2024
2G: 2nd generation TKI: dasatinib, nilotinib, bosutinib

# Significant Opportunity for TERN-701, a Novel Allosteric BCR-ABL TKI in Phase 1 Studies

## Allosteric TKIs represent a new generation of therapies for CML, offering the opportunity for:

| | | |
|---|---|---|
| • Superior target coverage vs current SoC | → | enhanced efficacy |
| • Improved kinase selectivity | → | minimal off-target activity |
| • High potency against common mutations | → | address difficult to treat mutations (e.g., T315i) |
| • Optimized dosing (single dose, lack of food effect) | → | improved patient convenience and quality of life (QoL) |
| • More rapid and deeper levels of response | → | greater potential for treatment free remission (TFR) |

Allosteric TKIs represent the next opportunity to transform standard of care for CML

SoC: Standard of care

# Introducing Our Speakers on Today's Call

**Amy Burroughs**

Chief Executive Officer, Terns

**Emil Kuriakose, MD**

Chief Medical Officer, Terns

**Andreas Hochhaus, MD**

Professor, Internal Medicine,
Head, Department of Hematology and Medical Oncology, Jena University Hospital

Director of the Comprehensive Cancer Center Central Germany

Specializes in treatment optimization of chronic myelogenous leukemia

TERNS
PHARMACEUTICALS

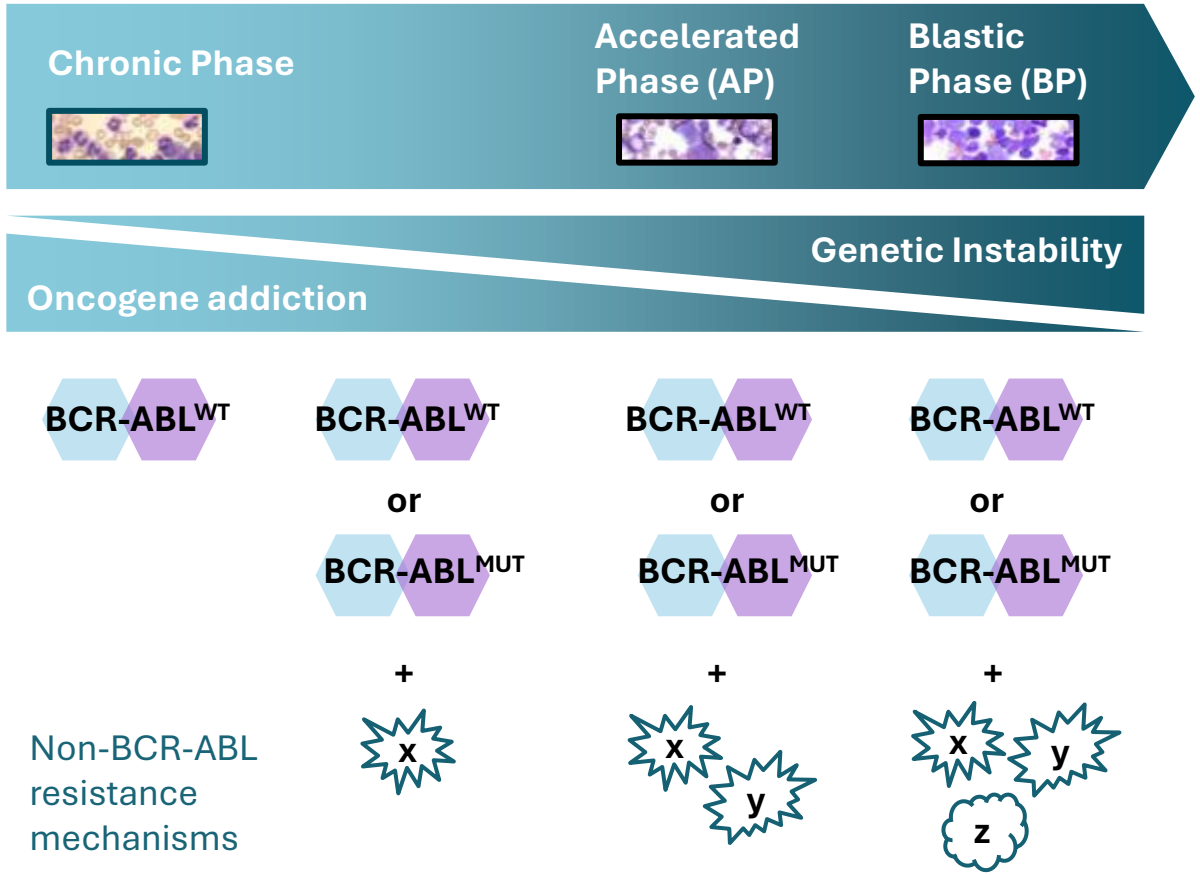
# Interpreting Early CML Datasets

**Emil Kuriakose,** CMO

# BCR-ABL and CML Biology: A Brief Review

*BCR-ABL Targeting TKIs Bring About the Best Reponses in Early in the CML Disease Course*

- Oncogenic addiction to BCR-ABL is strongest in early chronic phase (CP) CML
- TKI resistance can occur through acquired mutations in BCR-ABL and/or non-BCR-ABL resistance mechanisms
- Response to BCR-ABL targeting TKIs is highest early in disease course when tumor is most addicted to BCR-ABL with few resistance mechanisms
- More advanced phases of CML are generally characterized by lower response rates to TKIs and longer time to achieve response due to:
  - Decreased oncogenic addiction to BCR-ABL
  - Increased genetic instability




Soverini S, et al. Mol Cancer. 2018 Feb 19;17(1):49.

# There are Three Key Measures to Monitor Response to CML Treatment

- Measures of response to treatment include: hematologic, cytogenetic and molecular
- Hematologic and molecular response is assessed in peripheral blood; cytogenetic response is assessed in the bone marrow
- Molecular response

**Hematologic response (HR)**

Normalization of blood counts

**Cytogenic response (CyR)**

Decrease in Ph chromosome (+) cells in bone marrow

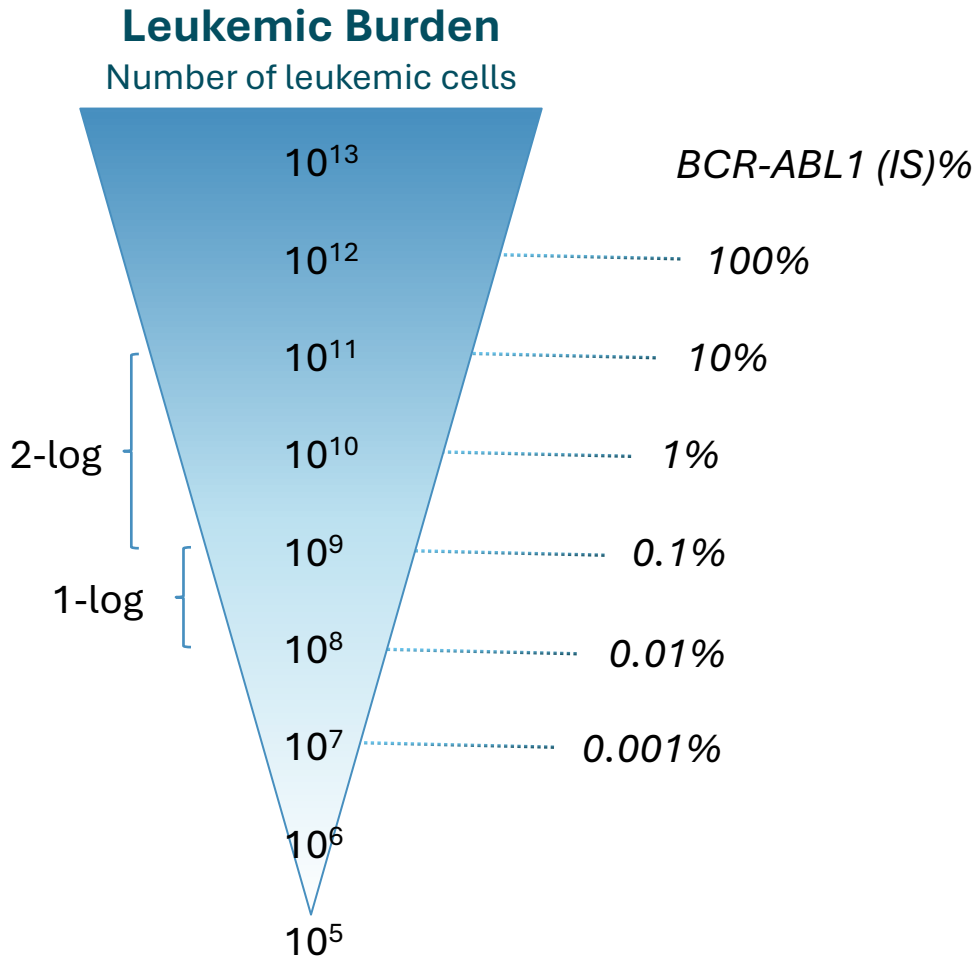
**Molecular Response (MR)**

Decrease in BCR-ABL transcript levels in blood

Deepening of response

# Molecular Response using RQ-PCR is a Standardized, Highly Sensitive, and Reliable Response Marker in CML

- MR is measured as the decrease over time in the ratio of BCR-ABL transcript to a reference control gene using RQ-PCR in peripheral blood
- MR is standardized on an international scale (IS) with BCR-ABL transcript ratios reported as percentage
- Changes in BCR-ABL are followed on a $\log_{10}$ scale with response categories defined based on number of whole log reductions from baseline
- BCR-ABL transcript levels generally correlate with tumor burden in marrow with exponential increases in leukemic cells with each log increase

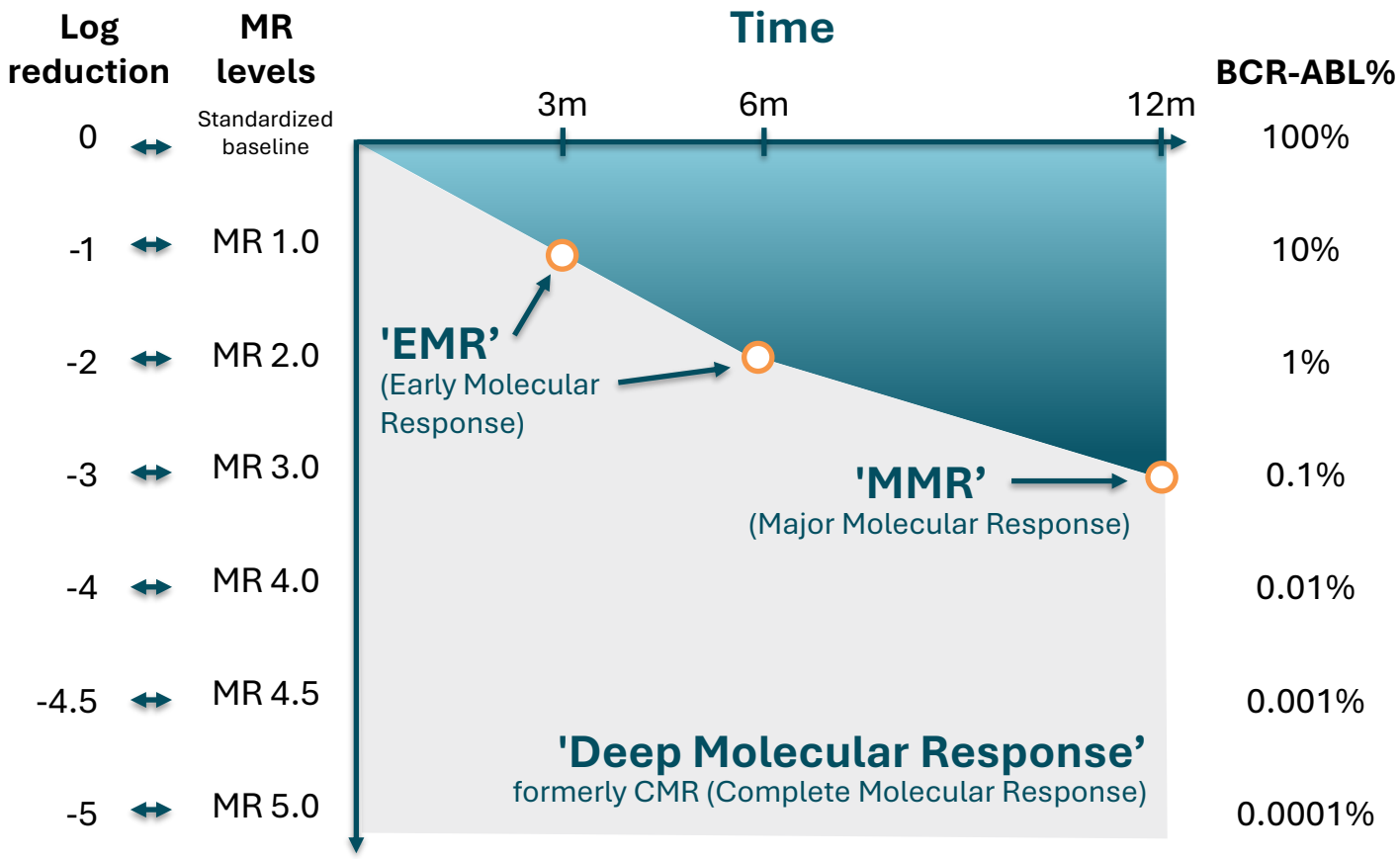



RQ-PCT: Real-time quantitative reverse transcriptase polymerase chain reaction.

1. Wang R et al. Medicine (Baltimore). 2019 Apr;98(15):e15222. 2. Saussele S et al. Leukemia. 2018 May;32(5):1222-1228. 3. Shah NP et al. Journal of the National Comprehensive Cancer Network 2024, 22(1), 43-69.
4. Talpaz M et al. Cancer. 2018 Apr 15;124(8):1660-1672.

# Response Milestones for Newly Diagnosed CML are Well-Defined

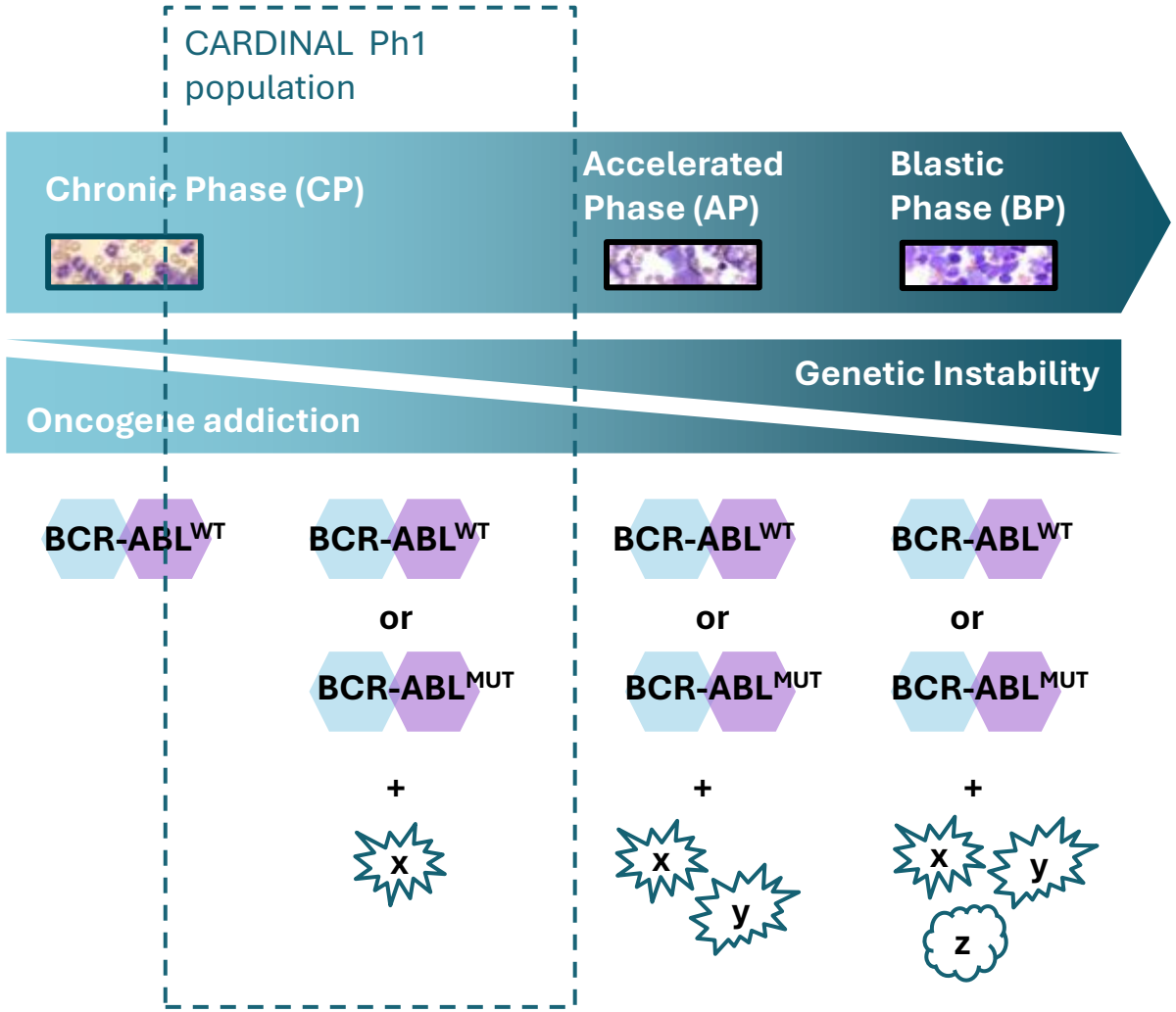
- In newly diagnosed patients, optimal response targets are to achieve BCR-ABL (IS) <10%, 1%, and 0.1% at 3, 6, and 12 months, respectively based on the ELN 2020 Guidelines
- Despite high transcript level at diagnosis, response is typically robust with fast kinetics
- Proportion of patients achieving BCR-ABL 0.1% IS (MMR) 12 months is the regulatory approval endpoint




Hochhaus A, et al. Leukemia. 2020 34: 966-984

# However, the Response Milestones for Newly Diagnosed Patients Do Not Apply to Relapsed/Refractory Patients

- R/R CML population is more variable compared to 1L population with regards to:
  - Disease biology (resistance mutations)
  - Treatment history (number and type of TKIs)
  - Leukemic burden (baseline BCR-ABL levels)
- The established response milestones for 1L patients do not uniformly apply to a more heterogenous R/R population
- CARDINAL is enrolling CP 2L+ patients who have had:
  - Treatment failure / suboptimal response to at least one prior 2nd generation active-site TKI, or
  - Intolerance on current TKI (including asciminib)

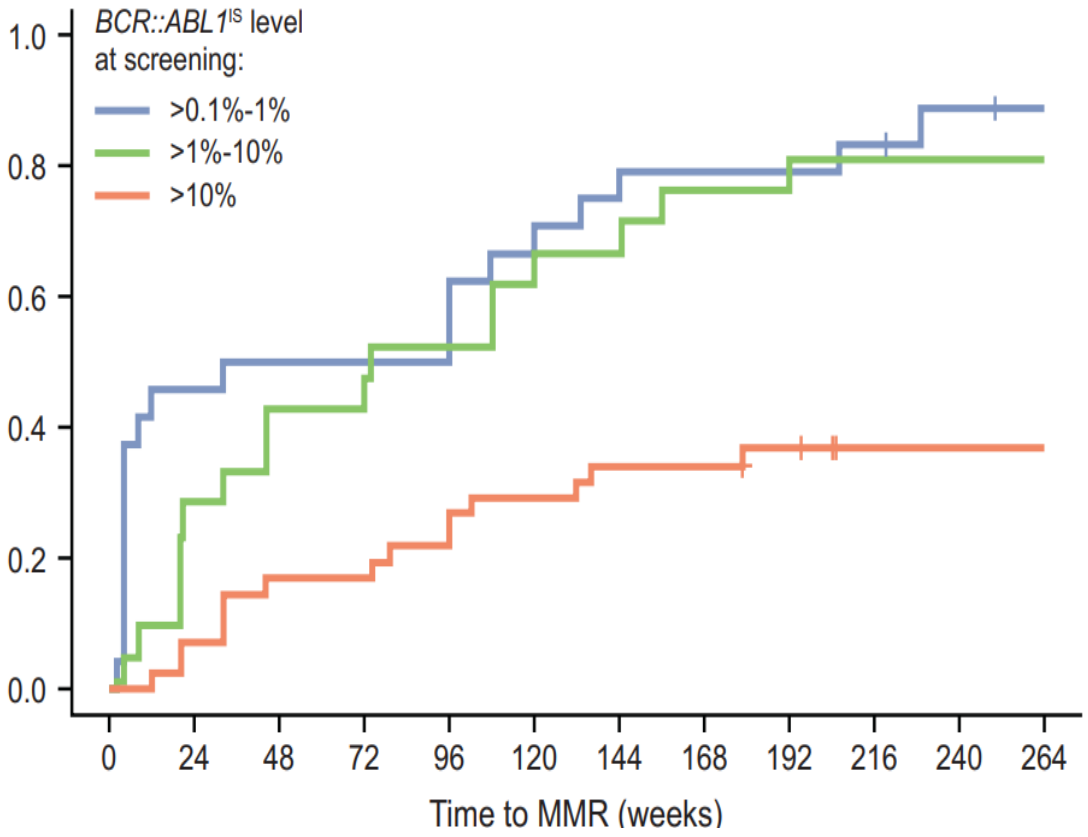



Soverini S, et al. Mol Cancer. 2018 Feb 19;17(1):49.

# Baseline BCR-ABL is a Key Factor That Impacts Response to Treatment in R/R CML Population

*Baseline BCR-ABL levels impact the speed and attainment of MMR in a heavily pretreated R/R CML population*

**Asciminib Ph1 study:** cumulative incidence of MMR




- Higher BCR-ABL at screening results in lower rates of and longer times to achieving MMR
- Patients with baseline BCR-ABL of >10% had the lowest molecular response rates to asciminib in Ph1:

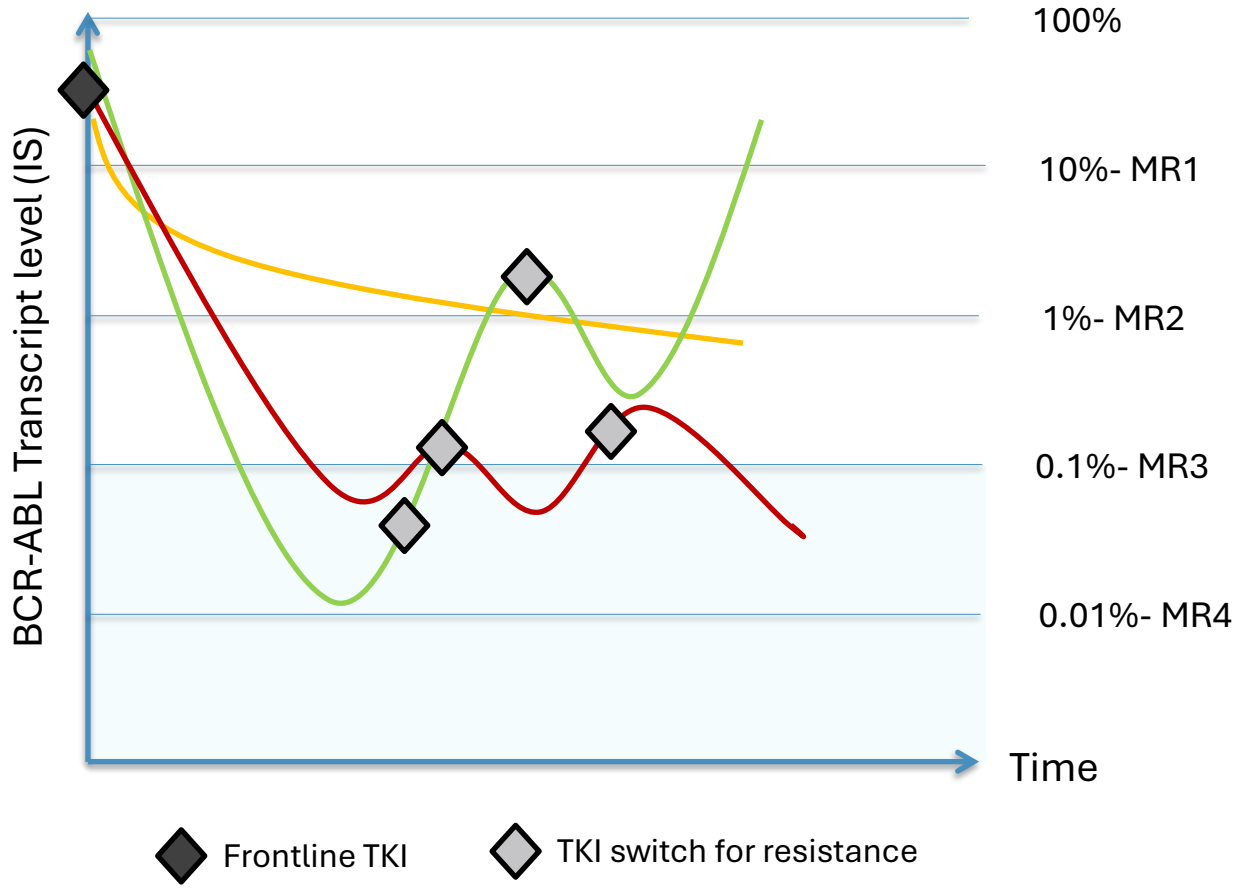
| Baseline BCR-ABL | MMR at 6 mos | MMR at 5 years |
|---|---|---|
| >10% | <10% | ~40% |
| 1-10% | 30% | ~80% |
| 0.1-1% | ~45% | ~90% |

Mauro MJ, et al. Leukemia. 2023 May;37(5):1048-1059. Supplemental Material.

# In Addition, There is a Lack of Established Guidelines on Switching TKIs, Therefore Patient Switch History is Important

- Patients may switch TKI for:
  - increasing BCR-ABL,
  - suboptimal rate of decrease in BCR-ABL, or
  - intolerance
- A high degree of physician practice variation in molecular response thresholds for switching
- A patient with many switches may be ‘well controlled’ and a patient with limited switches may be considered ‘difficult to treat’

**Illustrative BCR-ABL Levels over Time**



# So, What are Positive Early Signs of Safety/Efficacy in a Phase 1 Study?

**What could we meaningfully assess in a small dose-escalation cohort of patients over the first 1-3 months of treatment?**

- Favorable safety and tolerability
- Descriptive signals of efficacy, *in context of patients' baseline BCR-ABL and treatment history*, including
  - BCR transcripts declining in less pre-treated patients with lower baseline transcripts
  - Stabilizing BCR transcripts in heavily pre-treated patients with high baseline transcripts
  - Maintaining or decreasing BCR transcripts in patients with intolerance to their previous TKI

**What will we not be able to meaningfully assess?**

- MMR rate
- Comparing MMR or cumulative MMR with short durations of therapy and limited N has limited utility (in our view)

**Next, let us cover a few illustrative examples of what positive signals of efficacy could look like in individual patients…**

# Patient Example #1: Heavily Pre-treated Patient with >10% BCR-ABL

## Illustrative Patient Characteristics

- Baseline BCR-ABL transcript >10%
- Seen 3 prior TKIs
- BCR-ABL uncontrolled following 2 switches

## A Good Outcome is:

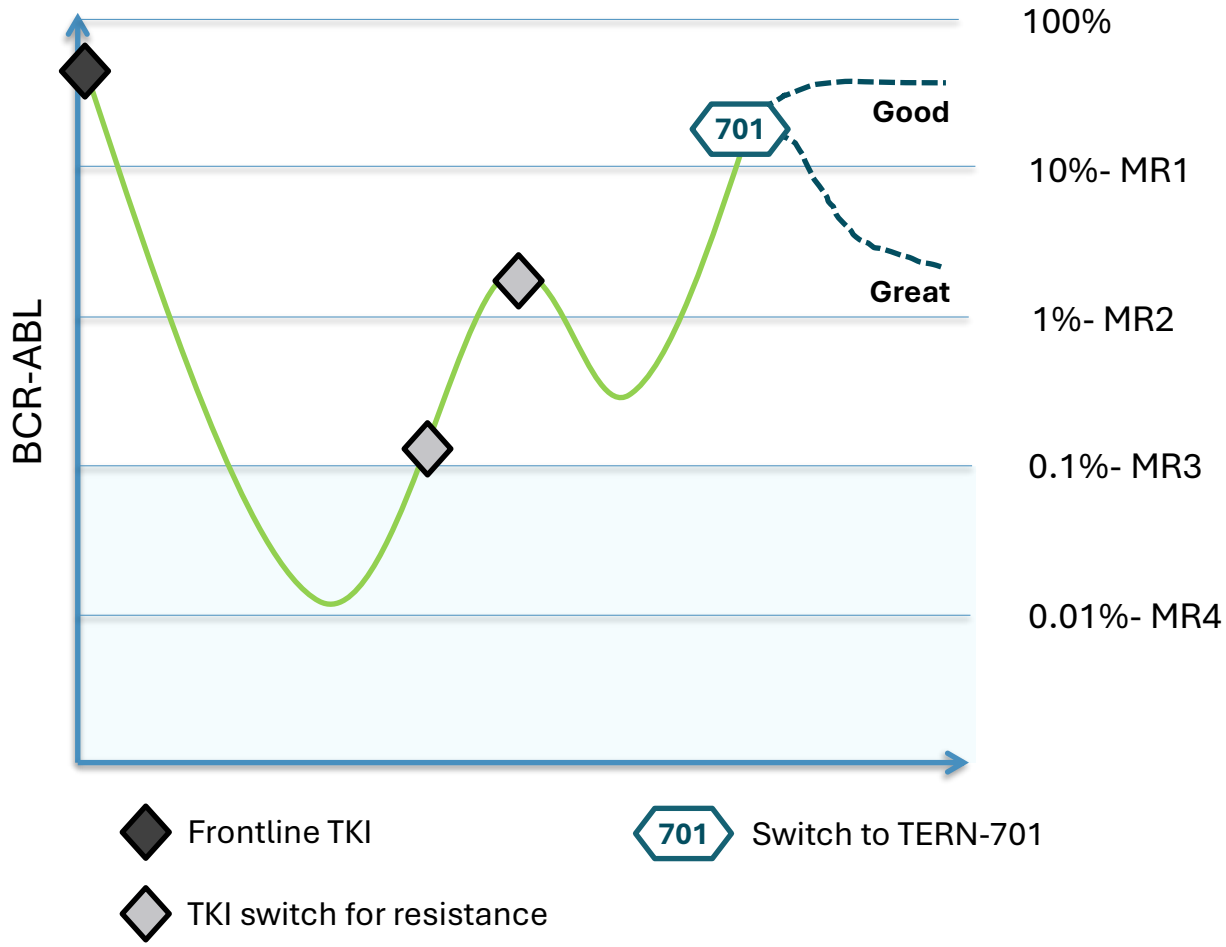
- BCR-ABL curve stops rising and stabilizes
- Well tolerated on therapy

## A Great Outcome is:

- BCR-ABL curve reverses, moves towards MR2
- Well tolerated on therapy

## Scenario takeaways

- Encouraging: 701 demonstrates early efficacy despite heavy pre-treatment and high baseline BCR-ABL levels



# Patient Example #2: 1L Patient with Suboptimal Response

## Illustrative Patient Characteristics

- Suboptimal rate of BCR-ABL decrease on 1L TKI (Not achieving recommended response milestones at 3, 6 or 12 months)

## A Good Outcome is:

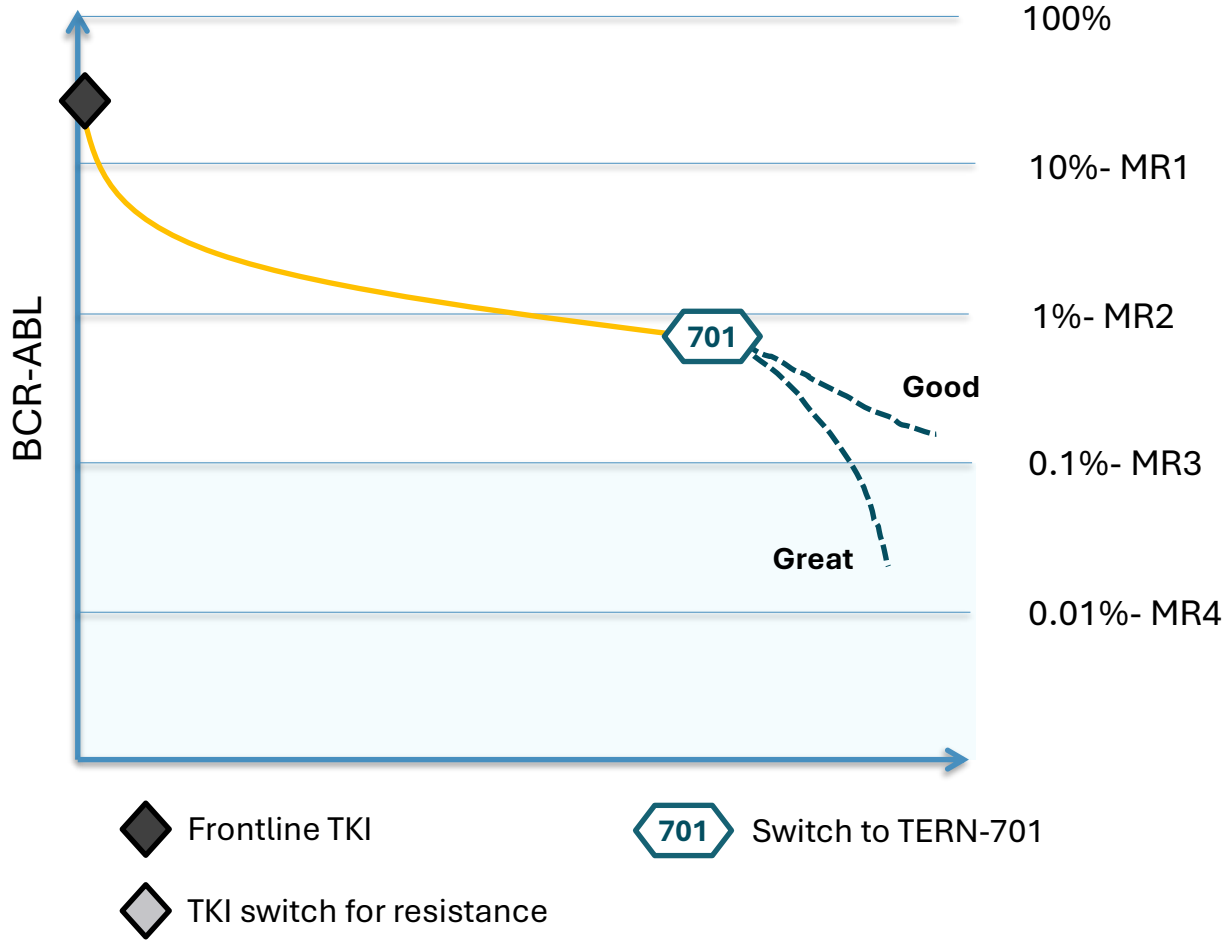
- Slope of decrease accelerates while in MR2
- Well tolerated on therapy

## A Great Outcome is:

- 1-log decrease to MR3 (MMR)
- Well tolerated on therapy

## Scenario takeaways

- Compelling: 701 rapidly achieves MMR while being well tolerated



# Patient Example #3: Asciminib Intolerant, Controlled MR

## Illustrative Patient Characteristics

- Baseline BCR-ABL transcript ~0.01%
- Seen 3 prior TKIs, switches to TERN-701 due to resistance and intolerance to asciminib

## A Good Outcome is:

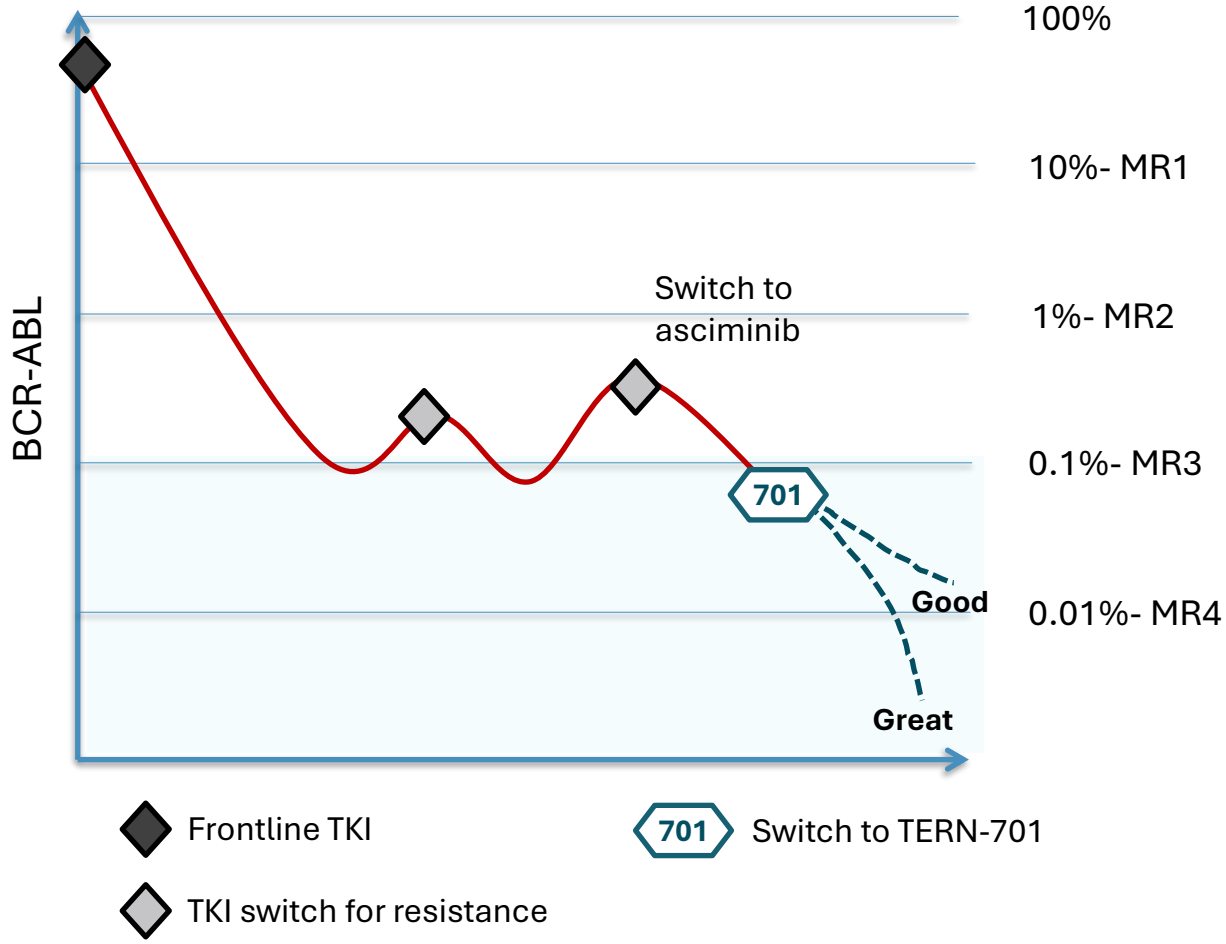
- Maintenance of MMR
- Well tolerated on therapy

## A Great Outcome is:

- BCR-ABL decline continues, achieves MR4 (DMR); well tolerated on therapy

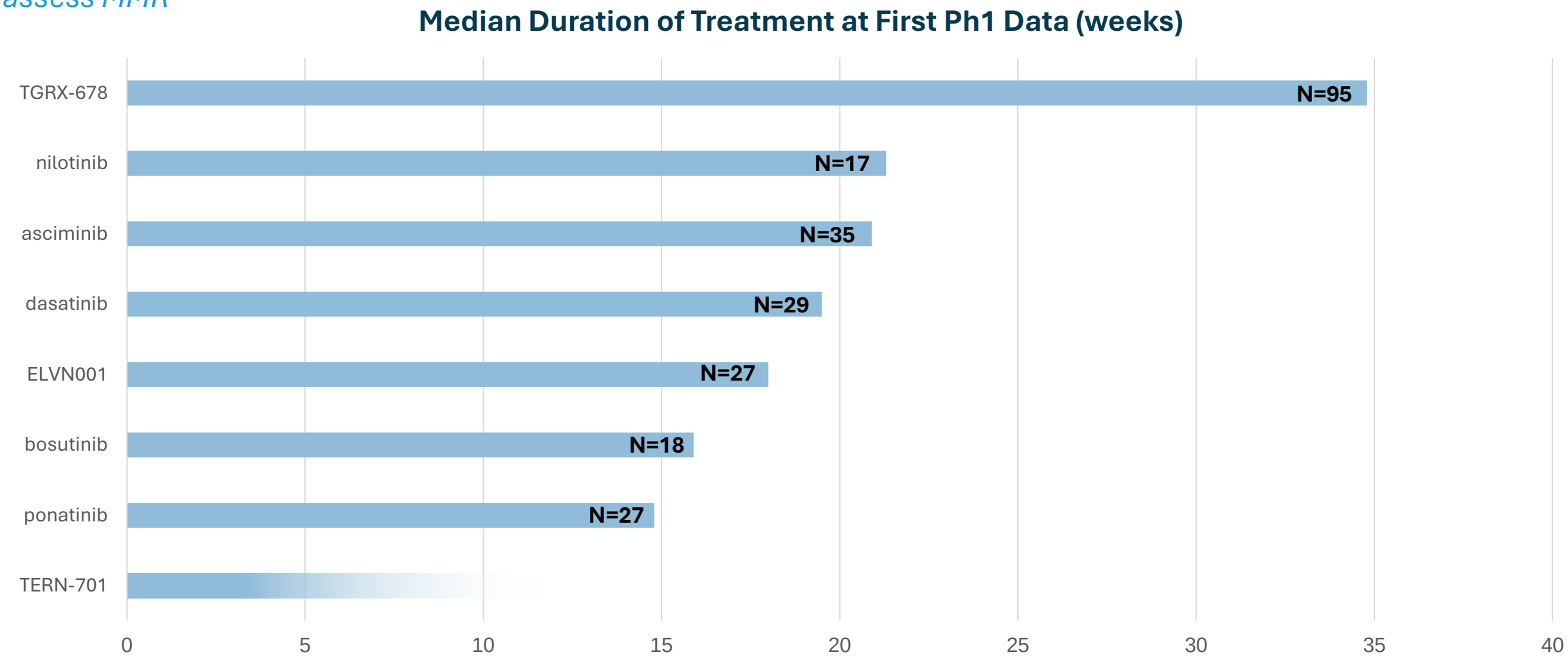
## Scenario takeaways

- Encouraging: 701 demonstrates differentiated tolerability profile and encouraging efficacy, longer follow-up needed



# Terns' Initial Ph1 Data Will Comprise Patients with Shorter Treatment Duration than Precedent Initial Phase 1 Data Disclosures

*While early dose escalation data will show descriptive signals of efficacy, longer treatment duration is needed to assess MMR*




Nilotinib: Kantarjian et al NEJM, 2006.; Dasatinib: Sawyers C et al. ASH Blood (2004); 104 (11): 1; Bosutinib: Cortes J et al. ASH. *Blood* (2006) 108 (11): 168; Ponatinib: Cortes, J et al ASH Blood (2009) 114 (22): 643; Asciminib: Ottmann et al. ASH. *Blood* (2015) 126 (23): 138; TGRX-678: Jiang et al. ASH. Blood (2023) 142 (Supplement 1): 867. ELVN-001: ELVN-001 Initial Proof of Concept Data and the Evolving CML Landscape Corporate Presentation, April 2024

# Framing the TERN-701 Interim Dose Escalation Data in December

**Parameters of the Interim Dose Escalation Data**

- Estimating 10-20 enrolled and 5-10 patients with ≥3 months of treatment, across at least 2 dose levels

**Interim Assessments**

- Safety and tolerability
- Early, descriptive signals of efficacy
  - Hematologic response
  - Change in BCR-ABL1 transcript levels

**Objectives**

- Assess safety and early indicators of efficacy
- Early dose escalation data won't be benchmarkable/directly comparable to other more mature CML

TERNS
PHARMACEUTICALS

# TERN-701 Opportunity Ahead and Next Steps

**Amy Burroughs,** CEO

# TERN-701 is Showing Signs of Early Differentiation as an Allosteric TKI

| | TERN-701 Differentiation Matrix | | |
|---|---|---|---|
| | Preclinical | Early Clinical (Ph1) | Late Clinical (Pivotal)[1] |
| Potency ≥ asciminib | ✓ | — N/A — | — N/A — |
| Once-daily dosing | ✓ | ✓ | ✓ |
| Lack of food effect | ✓ | ✓ | ✓ |
| Potential for improved efficacy (via dose optimization i.e., higher dose) | | | ✓ |
| Potential for simplified label (QD across mutations, improved DDI) | | | ✓ |

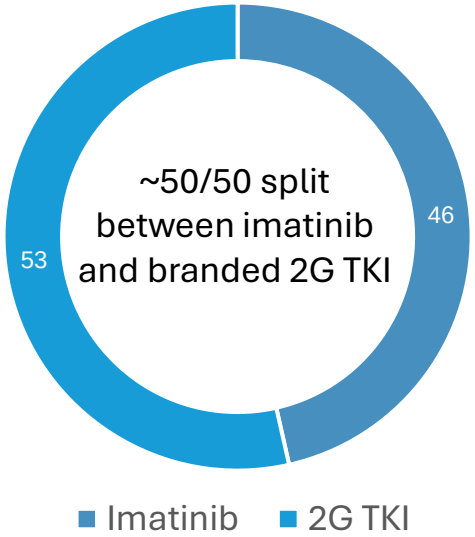
1. Featured opportunities for TERN-701 are not based on late-stage clinical data and are potential differentiation points that Terns is exploring

QD: once a day; DDI: drug-drug interactions

# As CML Landscape Shifts Towards Allosterics, We See Multiple Opportunities for TERN-701 as the 2nd Potential Allosteric TKI

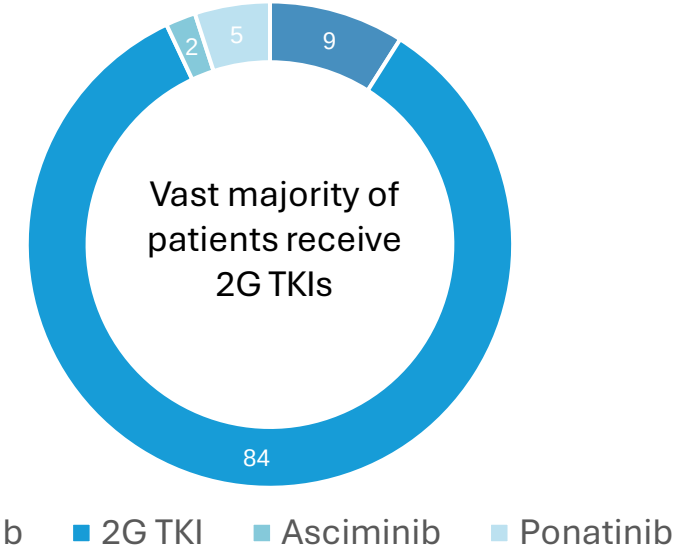
## Current 1L Paradigm[1, 2, 3]

**Newly diagnosed G7: 17k/year**




## Current 2L Paradigm[1, 2, 3]

**On 2L treatment G7: 25k**




### In the future...

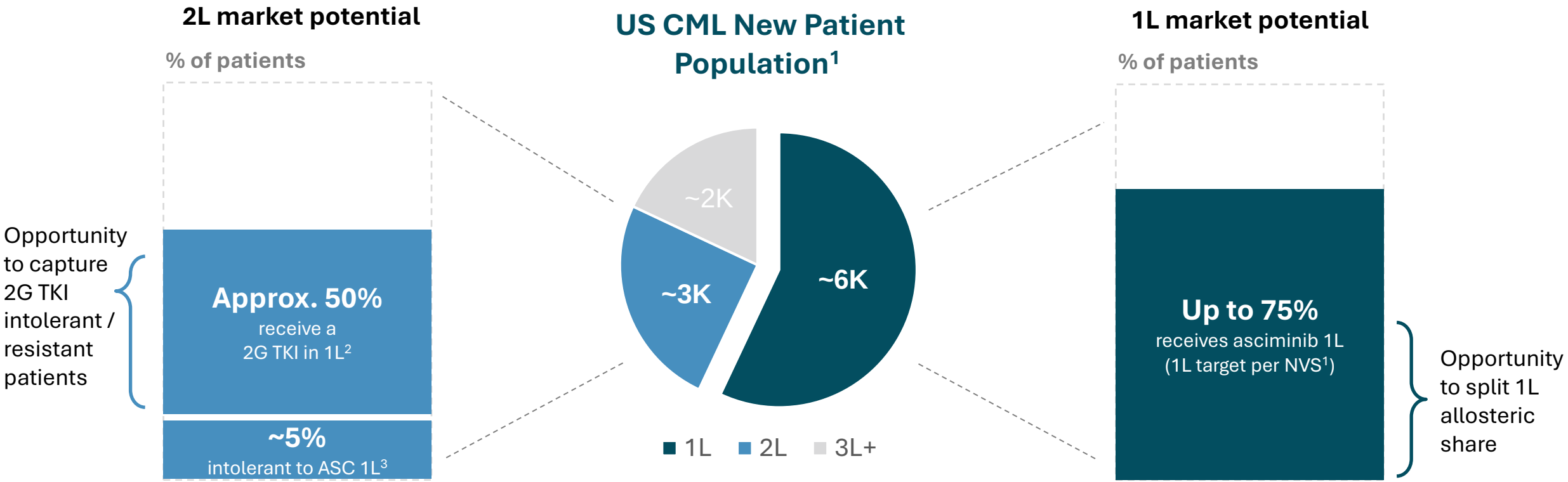
- Asciminib expected to capture meaningful share of 1L
- TERN-701 could enter 1L as a differentiated allosteric inhibitor showing efficacy ≥asciminib vs. imatinib/2G TKI

### In the future...

- No other allosteric inhibitor approvals anticipated in 2L
- TERN-701 could be the primary allosteric option for 2L pts with suboptimal response to active site TKIs in 1L[4]

1. Newly diagnosed: Kantar health CML incidence in G7 (US, EU5, JP), patients in 2024. 2. CML prevalence in G7, 2024: Kantar health. 3. IQVIA Market Sizing, IPSOS & IQVIA Oncology Dynamics (G7, MAT Jun 2023).
4. Current 1L treatment paradigm suggest that ~50% of 1L remains on generic 2G TKI.
Per Novartis ASCO Investor Event | June 2, 2024

# TERN-701 Has Broad Anticipated Opportunity Across 1L and 2L




TERN-701 is expected to be 2nd allosteric-to-market, with differentiation from asciminib

1. Novartis ASCO Investor Event | June 2, 2024; 2. References available on Slide 25; 3. Hochhaus A, et al. N Engl J Med. Published online 2024 May 31

# Subsequent Readout for TERN-701 May Inform Registrational Trial Design

**1H24**

**Phase 1 Global**
**~1-2 yrs***

CARDINAL

**Phase 3 Registrational Trial**
**2-3 years***

- CARDINAL trial is progressing
- Interim data from initial cohorts expected in Dec 2024
- Subsequent readout in 2025 anticipated to show 6-month data and inform potential registrational trial

**Evaluating multiple options for pivotal trial(s)** including frontline patients and second line:

**Phase 3 Monotherapy**
*Frontline CML patients*

**Phase 3 Monotherapy**
*2L+ CML patients*

*Trial durations estimated based on enrollment projections from asciminib development program

# Asciminib Phase 1 Data Could Serve as a Benchmark for Future Data

*In a future TERN-701 readout, 6-month data from asciminib's Phase 1 may be the most relevant dataset*

| Post-treatment BCR-ABL1 by 6 mo | asciminib P1 Baseline BCR-ABL1 Non-T315I | | | | |
|---|---|---|---|---|---|
| | ≤ 0.01% (n=6) | >0.01 to 0.1% (n=13) | >0.1 to 1% (n=23) | >1 to 10% (n=18) | >10% (n=39) |
| ≤ 0.01% | 6 (100%) | 4 (31%) | 5 (22%) | 4 (22%) | 1 (3%) |
| >0.01 to 0.1% | 0 | 8 (62%) | 6 (26%) | 1 (6%) | 2 (5%) |
| >0.1 to 1% | 0 | 1 (8%) | 12 (52%) | 12 (67%) | 7 (18%) |
| >1 to 10% | 0 | 0 | 0 | 1 (6%) | 12 (31%) |
| >10% | 0 | 0 | 0 | 0 | 17 (44%) |

Do not expect movement of >10% patients at the 3-month time point

Stabilization or 1-log reductions will be **early signals** of efficacy at 3-months, to be confirmed at 6-months

Hughes TP, et al. N Engl J Med 2019;381:2315-2326.

# Summarizing a Compelling Opportunity for TERN-701 in CML

TERNS
PHARMACEUTICALS

# Fireside Chat with CML KOL

**Andreas Hochhaus**, MD
**Emil Kuriakose,** CMO

TERNS
PHARMACEUTICALS

# KOL and Management Q&A

**Andreas Hochhaus**, MD
**Emil Kuriakose**, CMO
**Amy Burroughs**, CEO

# Mission. Vision. Core Values.

## MISSION

To advance transformative medicines that address serious diseases

## VISION

To pioneer significant innovations across the lifecycle of drug development

TRUST
EVOLVE
RESPECT
NURTURE
SOAR

**Trust**: empowered and accountable to do the right thing

**Evolve**: learning and growing from our successes, failures and changes in the environment

**Respect**: celebrating the diversity of our backgrounds, opinions and experiences

**Nurture**: fostering internal and external relationships

**Soar**: aiming high and being your best