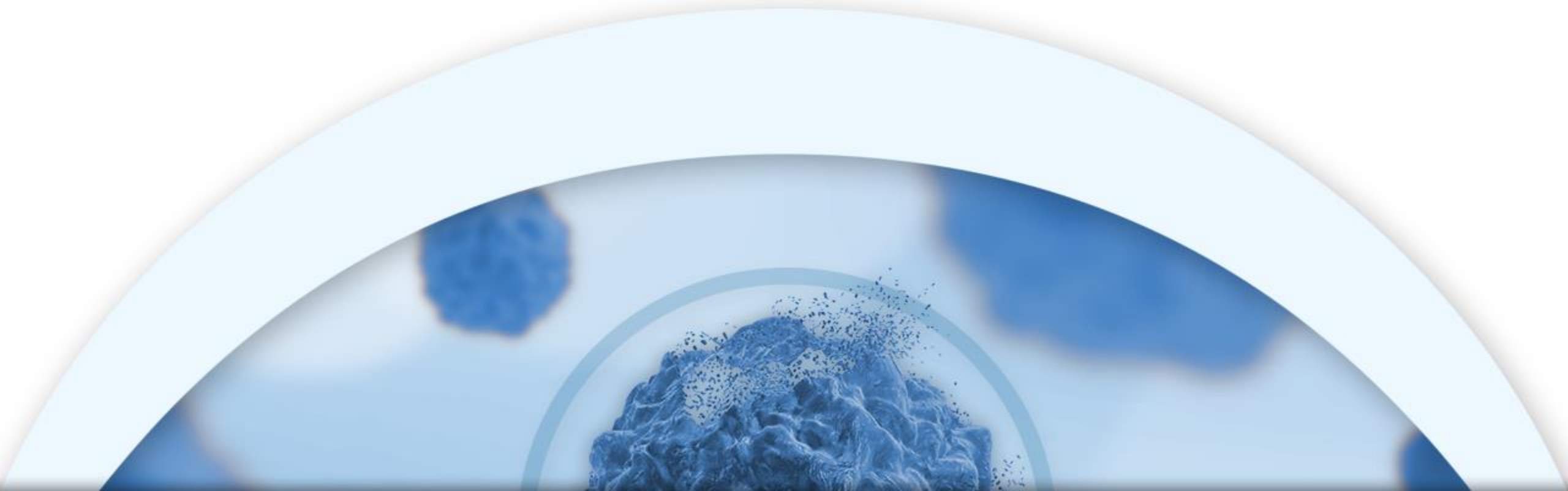




Corporate Presentation

NASDAQ: CRIS



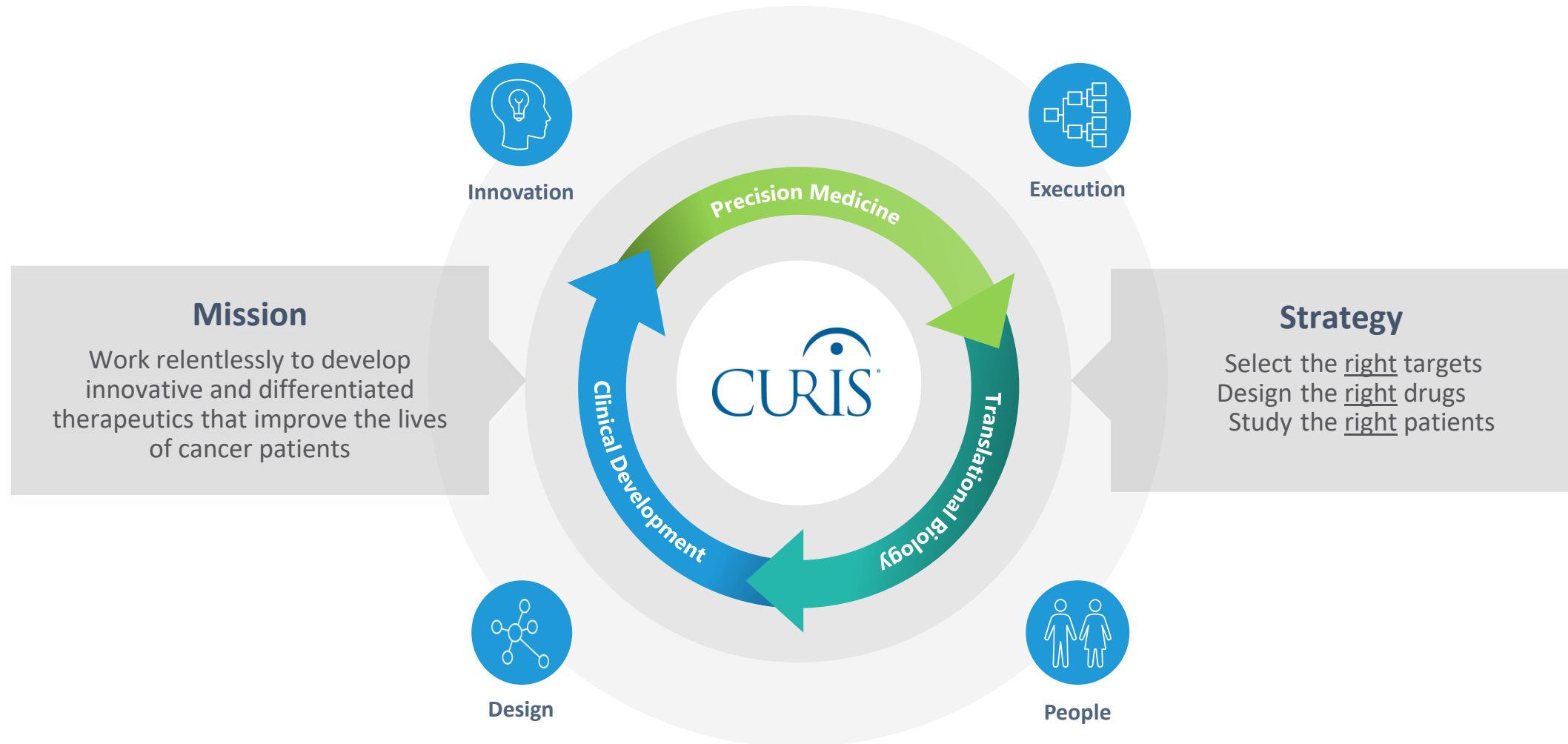
Cautionary Note Regarding Forward Looking Statements

This presentation contains certain forward-looking statements about Curis, Inc. (“we,” “us,” or the “Company”) within the meaning of the Private Securities Litigation Reform Act of 1995, as amended. Words such as “expect(s),” “believe(s),” “will,” “may,” “anticipate(s),” “focus(es),” “plans,” “mission,” “strategy,” “potential,” “estimate(s),” “intend,” “project,” “seek,” “should,” “would” and similar expressions are intended to identify forward-looking statements. Forward-looking statements are statements that are not historical facts, reflect management’s expectations as of the date of this presentation, and involve important risks and uncertainties. Forward-looking statements herein include, but are not limited to, statements with respect to the timing and results of future clinical and pre-clinical milestones; the timing of future preclinical studies and clinical trials and results of these studies and trials; the clinical and therapeutic potential of our drug candidates; and management’s ability to successfully achieve its goals. These forward-looking statements are based on our current expectations and may differ materially from actual results due to a variety of important factors including, without limitation, risks relating to: whether any of our drug candidates will advance further in the clinical development process and whether and when, if at all, they will receive approval from the U.S. Food and Drug Administration or equivalent foreign regulatory agencies; whether historical preclinical results will be predictive of future clinical trial results; whether historical clinical trial results will be predictive of future trial results; whether any of our drug candidate discovery and development efforts will be successful; whether any of our drug candidates will be successfully marketed if approved; our ability to achieve the benefits contemplated by our collaboration agreements; management’s ability to successfully achieve its goals; the sufficiency of our cash resources; our ability to raise additional capital to fund our operations on terms acceptable to us or the use of proceeds of any offering of securities or other financing; general economic conditions; competition; and the other risk factors contained in our periodic and interim reports filed with the Securities and Exchange Commission which are available on the SEC website at www.sec.gov. You are cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and we do not undertake any obligation to revise and disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events, except as required by law.

This presentation is not an offer to sell or the solicitation of an offer to buy any securities, and shall not constitute an offer, solicitation, or sale in any jurisdiction in which such offer, solicitation, or sale is unlawful.

Curis Mission & Strategy

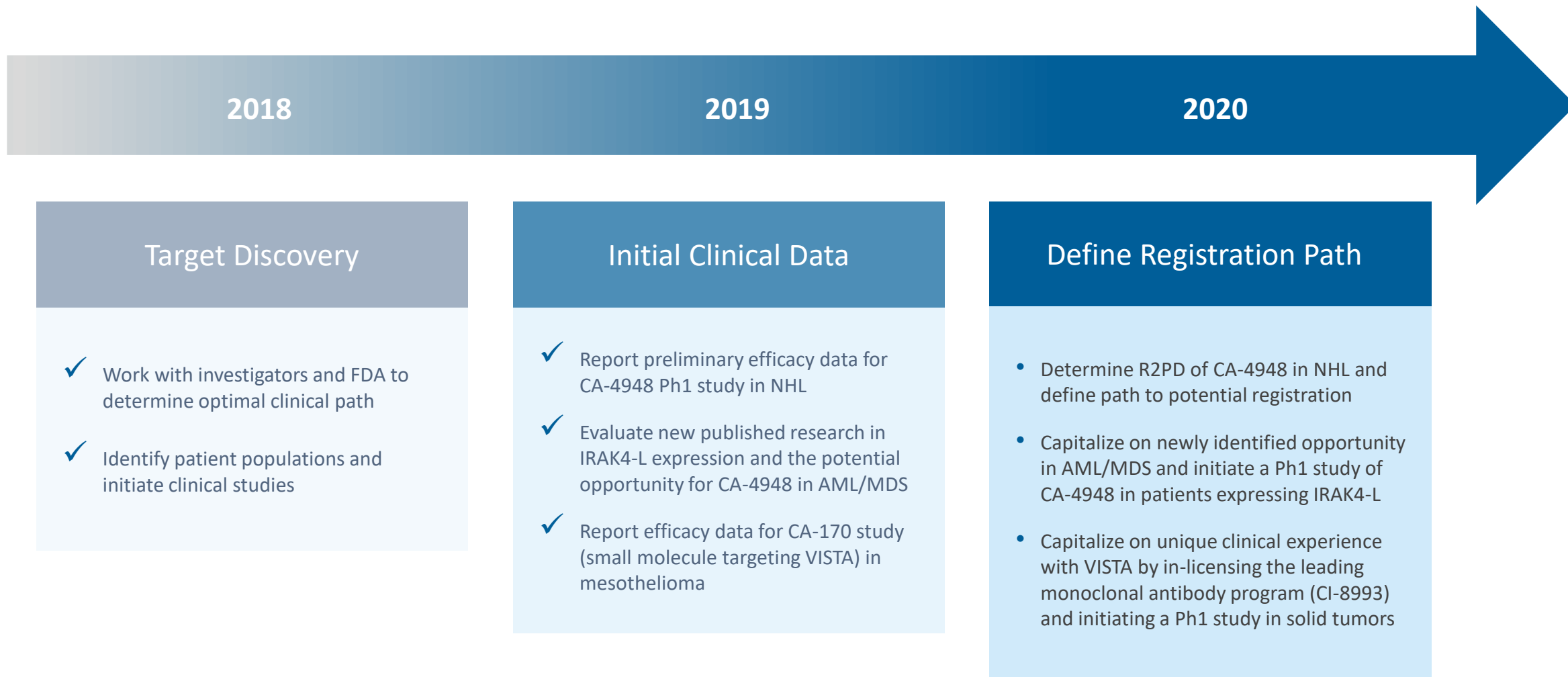
Developing the New Generation of Targeted Cancer Drugs



| | |
|--------------------------|--|
| Investment Thesis | Curis seeks to develop novel, first-in-class, cancer therapeutics that we believe have significant potential in areas of unmet patient need |
| Robust Pipeline | <p>CA-4948: first-in-class inhibitor of IRAK4 in oncology <i>There are no drugs currently approved for IRAK4 inhibition in oncology</i></p> <p>CI-8993: first-in-class antagonist of VISTA <i>There are no drugs currently approved for VISTA inhibition</i></p> <p>Fimepinostat: first-in-class suppressor of MYC <i>There are no drugs currently approved for MYC inhibition</i></p> |
| Corporate | <ul style="list-style-type: none"> Experienced management team with proven capabilities Curis R&D pioneered the first-in-class inhibitor of the Hedgehog pathway (Erivedge®) partnered with and commercialized by Genentech/Roche for advanced basal cell carcinoma Cash and investments of \$23.6M as of Jun 30, 2020 (in addition to \$30M stock purchase commitment from Aspire Capital) |

Evolution of Curis

Progressing through Clinical Studies on the Path to Potential Registration



Pipeline

All Curis programs are novel, first-in-class

| | | PRE-CLINICAL | CLINICAL | | | | MARKETED |
|-------------------------------------|--------------------------------------|--------------------|----------|-------------------|-------------------|---------|------------|
| | | Proof of Principle | Safety | Dose Optimization | Clinical Activity | Pivotal | Commercial |
| <i>Heme Malignancies</i> | | | | | | | |
| CA-4948* IRAK4 | MYD88/TLR-altered Lymphoma (NHL) | | | | | | |
| CA-4948* IRAK4 | IRAK4L-expressing Leukemia (AML/MDS) | | | | | | |
| Fimepinostat HDAC/PI3K | MYC-altered Cancers | | | | | | |
| <i>Immune Checkpoint Inhibitors</i> | | | | | | | |
| CI-8993** VISTA | VISTA-expressing/infiltrated Cancers | | | | | | |
| CA-327* PDL1/TIM3 | PDL1/TIM3-expressing Cancers | | | | | | |
| CA-170* PDL1/VISTA | PDL1/VISTA-expressing Cancers | | | | | | |
| <i>Basal Cell Carcinoma</i> | | | | | | | |
| Erivedge*** Hedgehog | Basal Cell Carcinoma | | | | | | |

A large, circular, light-blue microscopic image of a cell cluster is centered behind the text. The cluster has a textured, irregular surface with many small, dark blue dots scattered across it, possibly representing individual cells or molecules. The background of the slide is white with several out-of-focus, light-blue circular shapes scattered around, giving a sense of depth and a scientific or medical theme.

Targeted Programs in Heme Malignancies

CA-4948: In development for treatment of TLR-altered cancers

CA-4948 Overview



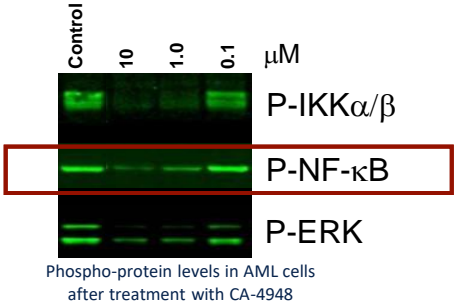
First-in-Class Inhibitor of IRAK4 in Oncology

| Profile | |
|-------------------------------|--|
| Value Proposition | <ul style="list-style-type: none">• First-in-class IRAK4 inhibitor in cancer• Specific malignancies in Lymphoma are characterized by overactivity of the myddosome in the TLR pathway (which is dependent upon IRAK4)• Specific malignancies in Leukemia are characterized by spliceosome mutations that lead to overexpression of IRAK4-L (the oncogenic isoform of IRAK4)• Composition-of-matter IP extends into 2035 |
| Population | <p>Lymphoma: All patients treated with ibrutinib (IRAK4i has strong synergy with BTKi)</p> <p>Leukemia: >50% of AML/MDS patients (the population which overexpresses IRAK4-L)</p> |
| Product Candidate Description | <ul style="list-style-type: none">• Potent and orally bioavailable inhibitor of IRAK4 for treatment of MYD88-altered lymphomas and spliceosome-mutated leukemia |

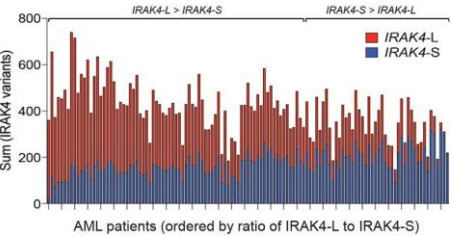
Designed to be best-in-class
IRAK4 inhibitor¹

| Kinase | Affinity |
|--------|---------------------|
| | K _d (nM) |
| IRAK4 | 23 |
| IRAK1 | 12,000 |
| IRAK2 | >20,000 |
| IRAK3 | 8,500 |

In Lymphoma:
Potent suppressor
of NF-κB signal transduction²



In Leukemia:
>50% of AML/MDS patients
overexpress IRAK4-L³



1) Data from Curis preclinical study
2) Booher et al. AACR 2017 (poster #1168)
3) Smith et al. Nat Cell Biol 2019

Mechanism of Action

*The TLR Pathway is a primary and independent activator of NF- κ B
and is oncogenic in both Lymphoma and Leukemia*

Oncogenic

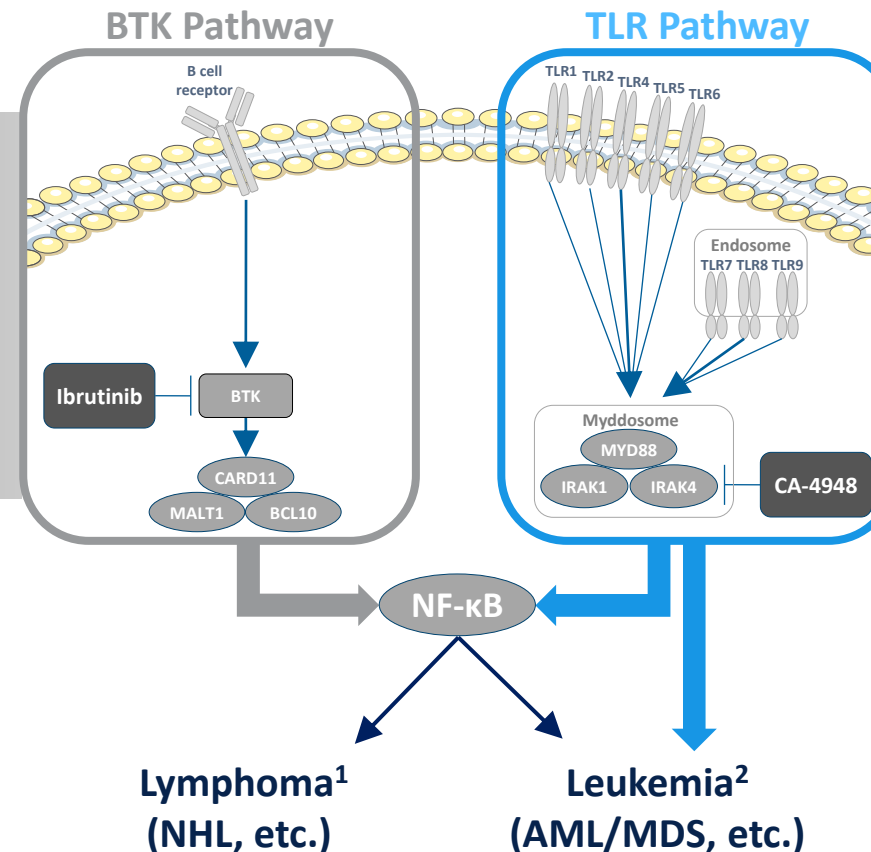
- Dysregulation drives excessive B Cell proliferation

Pathway validated

- MCL, MZL, CLL, Waldenström's macroglobulinemia¹

BTK inhibition effective

- Ibrutinib is FDA approved



Oncogenic

- Dysregulation drives excessive B cell proliferation^{2,3}

Dependent upon IRAK4

- Signaling requires myddosome, which requires IRAK4

Strong Synergy

- Inhibition highly synergistic with BTK inhibition

1) IMBRUVICA Package Insert. Rev 08/2018

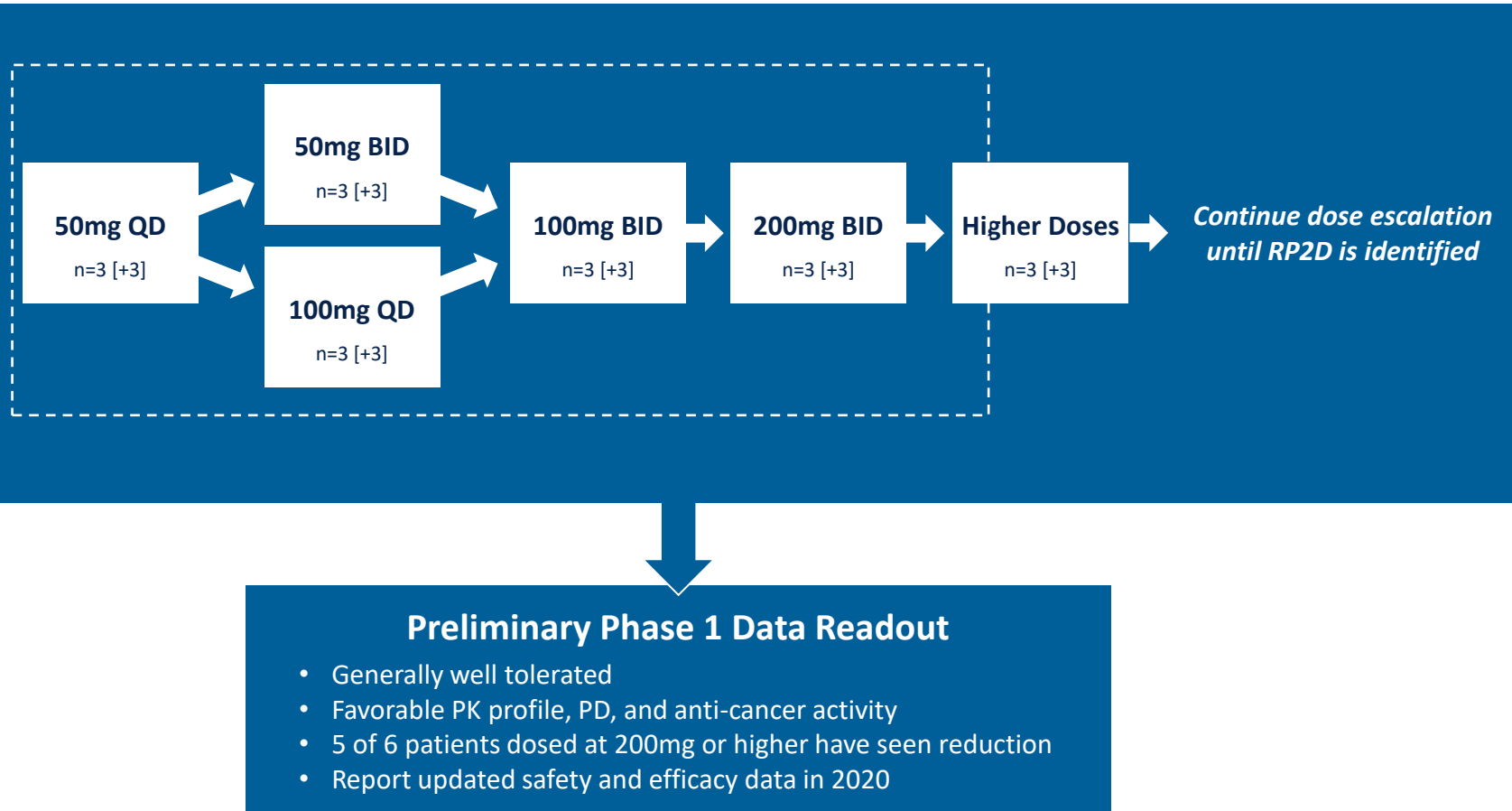
2) Ngo et al. Nature. 2011 Feb 3;470(7332):115-9

3) Küppers et al. J Exp Med. 2015. 212(13): 2184

4) Smith et al. Nat Cell Biol 2019

CA-4948 in Lymphoma

Preliminary Phase 1 Data Demonstrate Tolerability, PK, PD, and Anti-Cancer Activity



Patient Population

- Patients with R/R Lymphoma (incl DLBCL, WM, and patients with MYD88-altered disease)

Treatment

- Oral, once-daily (QD) or twice-daily (BID), dosing in continuous 21-day cycles

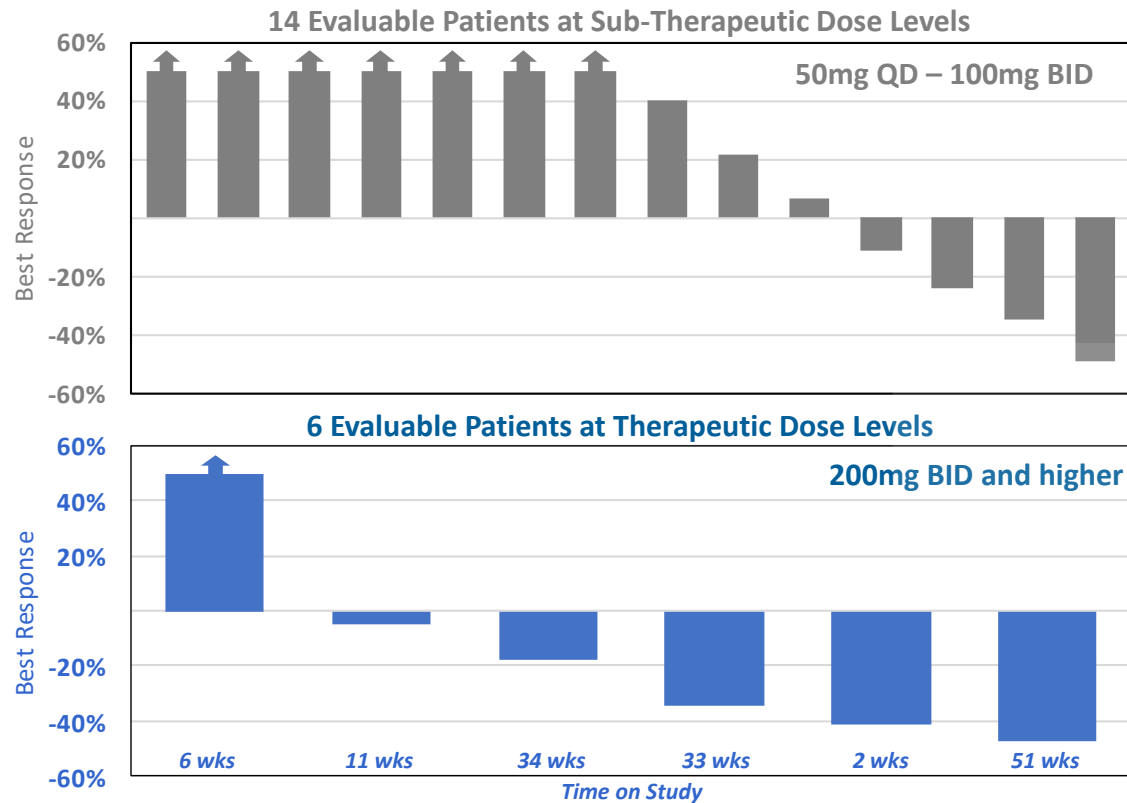
Objective

- Safety/tolerability during dose escalation
- Efficacy during expansion

CA-4948 in Lymphoma

Single Agent Dose Response Observed as Phase 1 Study Advances to Therapeutic Dose Levels

Change in Tumor Burden

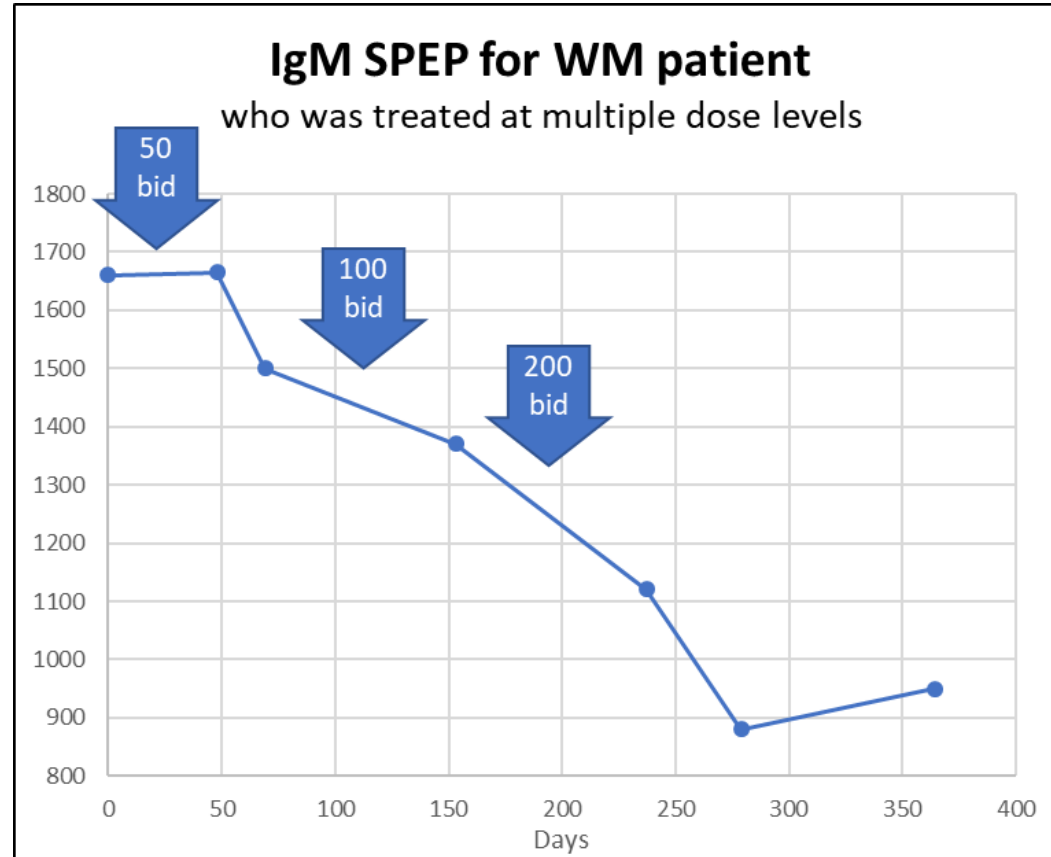


Dose Response Observed

5 of 6 patients experienced tumor reduction (avg reduction of 29%) as dose increased to therapeutic levels (200mg and higher)

CA-4948 in Lymphoma

Single Agent Dose Response Observed as Phase 1 Study Advances to Therapeutic Dose Levels



Dose Response Observed
*Increased tumor reduction observed
as patient increased dose*

CA-4948 in Lymphoma

Combination with BTKi leads to Potent Anti-Cancer Activity in MYD88-altered DLBCL Models

Preclinical Anti-Cancer Activity

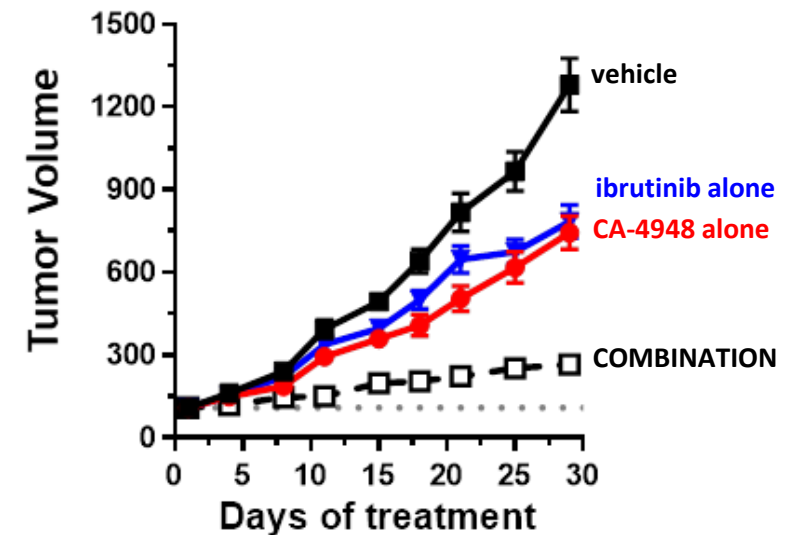
Potent as Single Agent

- Anti-cancer activity demonstrated in MYD88-altered DLBCL
- Interim readout in dose escalation study shows clear dose response
- We intend to continue dose escalation to further enhance efficacy until MTD / R2PD

Strong Synergy in Combination

- Anti-cancer activity demonstrated to be highly synergistic with BTK inhibition
- Evaluating potential clinical development strategies for CA-4948 with BTKi to assess anti-cancer activity

Preclinical Anti-Cancer Activity in MYD88-altered DLBCL¹ (OCI-Ly10)



1) Data from Curis preclinical study; Booher, et al. 4th Waldenstrom Roadmap Symposium

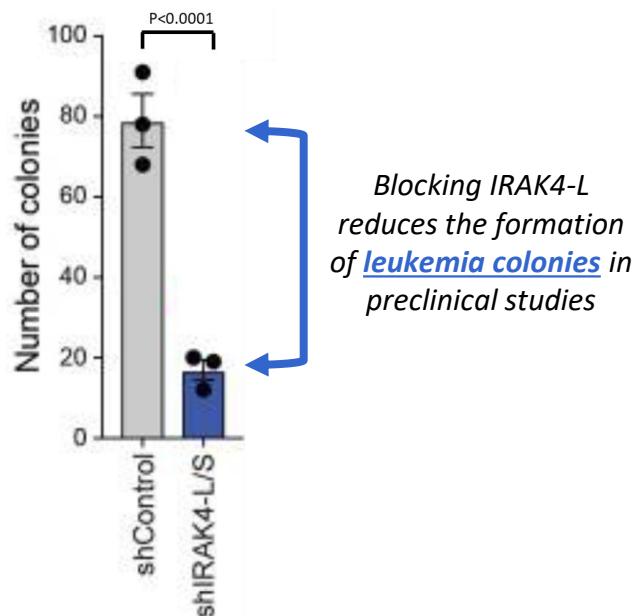
Additional Regulatory Path Identified in AML/MDS

Specific Genetic Mutations Lead to Expression of the Long Isoform of IRAK4 (IRAK4-L)

Oncogenic IRAK4-L, which is driven by spliceosome mutations (incl. SF3B1 and U2AF1), is preferentially expressed >50% of AML/MDS patients

IRAK4-L is Oncogenic

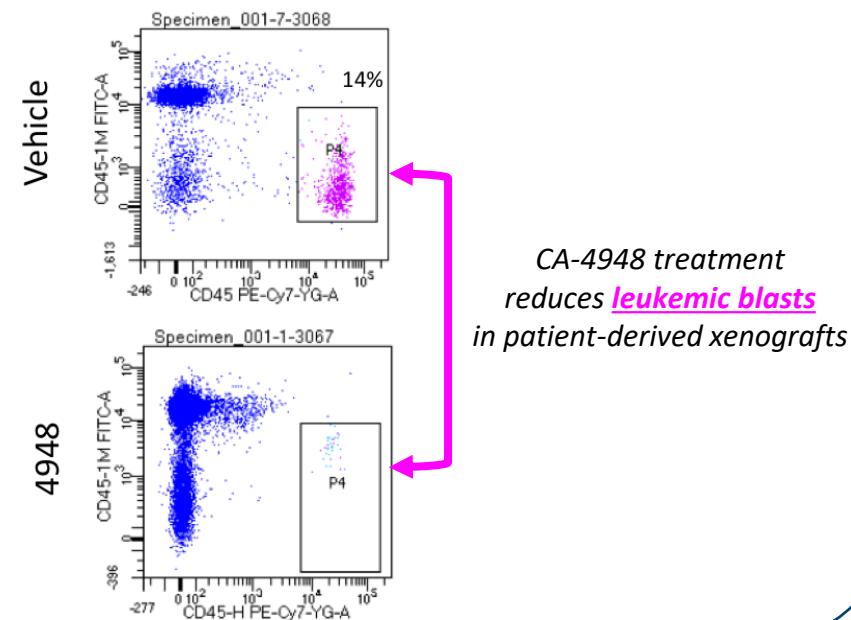
IRAK4-L provides a genetic link to oncogenic immune signaling in AML/MDS



Smith et al. Nat Cell Biol. 2019

CA-4948 Directly Targets IRAK4

Direct inhibition of the protein associated with disease (IRAK4) may offer a potential path to accelerated approval

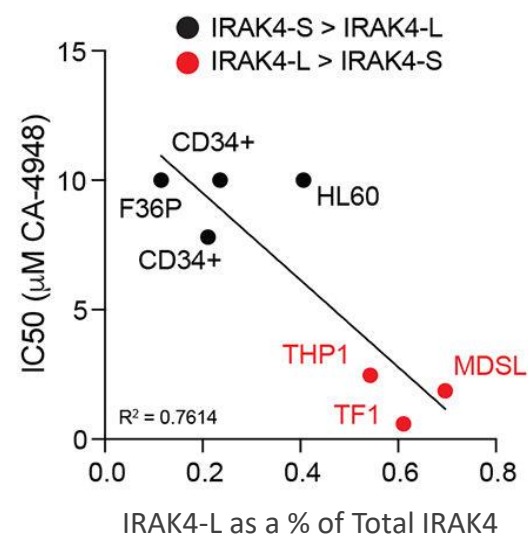


Choudhary et al. AACR 2017

CA-4948 in AML/MDS

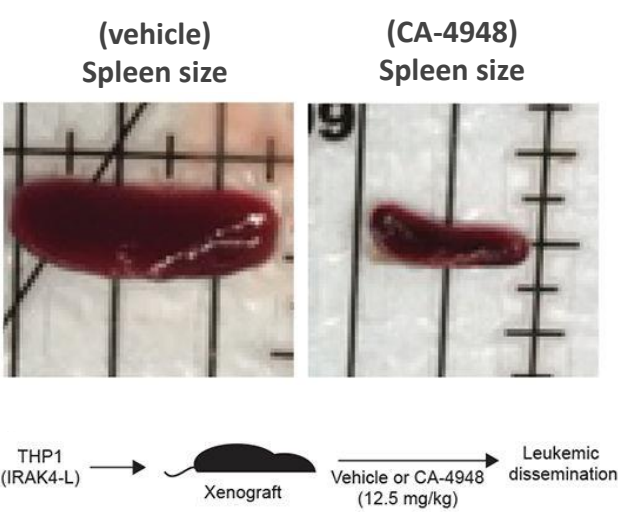
Preclinical data supporting opportunity in AML/MDS

Cell lines Overexpressing IRAK4-L Are More Sensitive to CA-4948



Smith et al. 2019

Xenografts Treated with CA-4948 Maintained Normal Spleen Size (surrogate for leukemic burden)



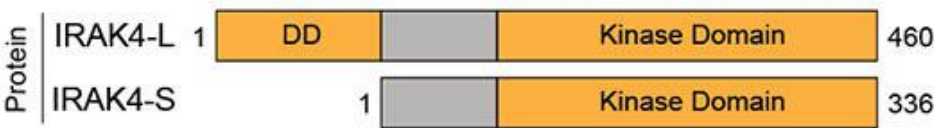
Smith et al. 2019

Treatment with CA-4948 Prevented Leukemic Engraftment in Almost All Xenografts

(% of mice)
Bone Marrow Engraftment

| Vehicle | CA-4948 |
|---------|---------|
| 70% | 10% |

Smith et al. 2019



CA-4948 in AML/MDS

Phase 1 Study Design

FDA supports study initiation
at therapeutic dosing level (200mg BID)

200mg BID

n=3 [+3]

Higher Doses

n=3 [+3]

*Continue dose escalation
until RP2D is identified*

Patient Population

- Patients with R/R AML and High Risk MDS

Treatment

- Oral, twice-daily (BID), dosing in continuous 28-day cycles

Objective

- Safety/tolerability during dose escalation
- Efficacy during expansion

Upcoming Milestones

- ✓ Initiated Ph1 study in Q2 2020
- Report initial data by end of 2020

A circular inset containing a microscopic image of a cell cluster, likely a tumor, with a blue and white color scheme. The cluster is irregular in shape and has a textured surface.

Monoclonal Antibody Immune Checkpoint Inhibitor

CI-8993: In development for treatment of VISTA-expressing cancers

In Development for VISTA Expressing and Infiltrated Cancers

| Profile | |
|---------------------|--|
| Value Proposition | <ul style="list-style-type: none">• First-in-class monoclonal antibody antagonist of VISTA• No anti-VISTA drugs currently in the clinic• Composition-of-matter IP extends into 2034 |
| Population | <ul style="list-style-type: none">• Patients with VISTA-expressing cancers (incl. Mesothelioma, NSCLC, and TNBC)• Patients receiving PD1/PDL1 or CTLA4 antibody therapy (or those who have already received it and have developed resistance to it) |
| Product Description | <ul style="list-style-type: none">• Monoclonal antibody developed by ImmuNext/Janssen in partnership with Randy Noelle’s lab at Dartmouth (the co-discoverer of VISTA)• IND cleared to proceed by FDA in June 2020 |

CI-8993 Target Background

VISTA is a Major Checkpoint Regulator

RESEARCH ARTICLE SUMMARY

T CELLS

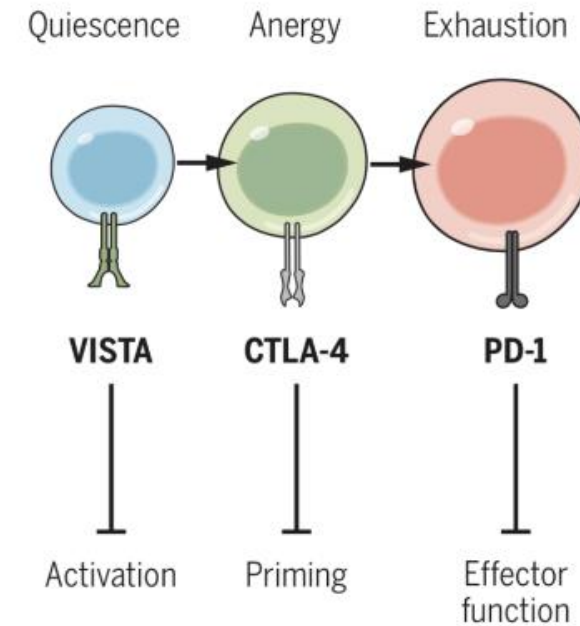
VISTA is a checkpoint regulator for naïve T cell quiescence and peripheral tolerance

Mohamed A. ElTanbouly*, Yanding Zhao*, Elizabeth Nowak, Jiannan Li, Evelien Schaafsma, Isabelle Le Mercier, Sabrina Ceeraz, J. Louise Lines, Changwei Peng, Catherine Carriere, Xin Huang, Maria Day, Brent Koehn, Sam W. Lee, Milagros Silva Morales, Kristin A. Hogquist, Stephen C. Jameson, Daniel Mueller, Jay Rothstein, Bruce R. Blazar, Chao Cheng†, Randolph J. Noelle†

- CTLA-4, PD-1, and VISTA are the three main players in controlling checkpoint blockade
- VISTA controls early T cell activation events
- Blockade of VISTA will allow for an expanded T cell response against tumors

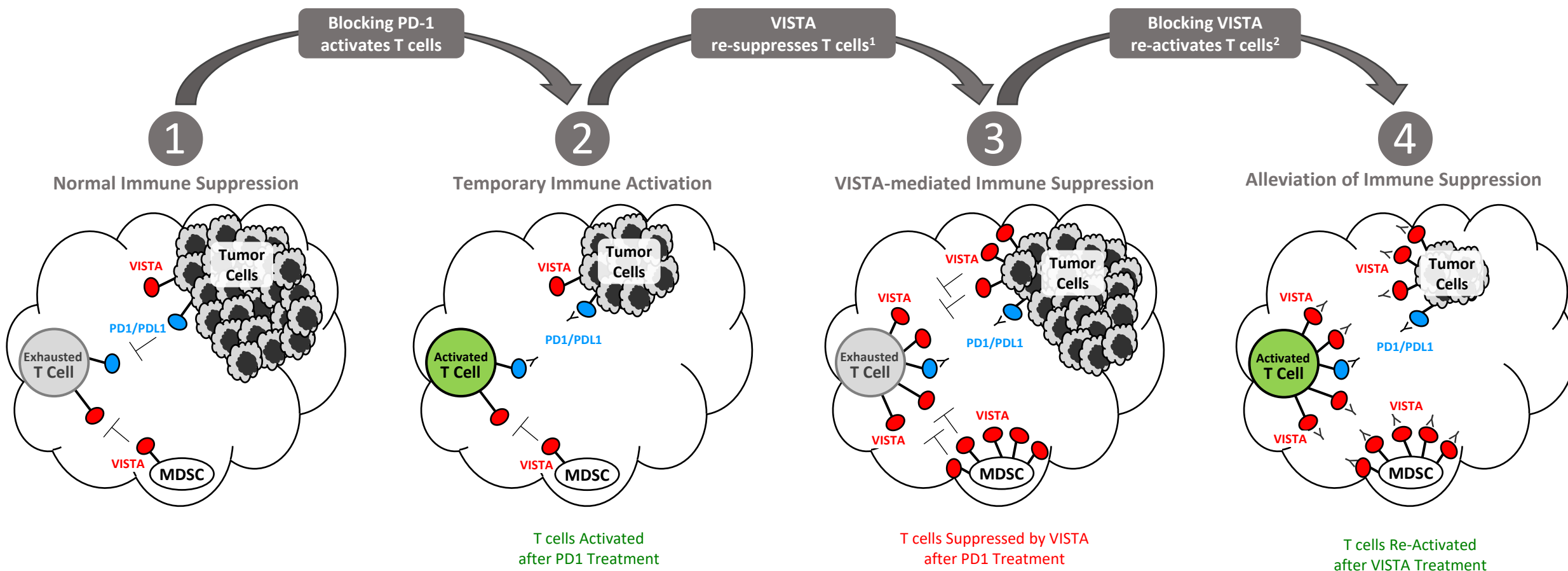
ElTanbouly et al. Science. 2020

Integration of VISTA with other well-established negative checkpoint regulators of T cell activation



CI-8993 Target Background

Role of VISTA in Immune Suppression in the Tumor Microenvironment (TME)



blocking PD1 causes up to 5x increase in VISTA expression¹

¹ Gao et al. Nature. 2017. 23: 551-555

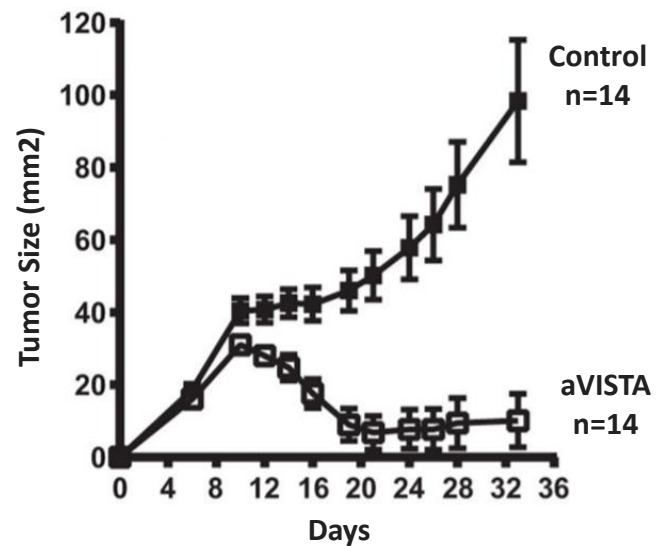
² Data from ImmuNext preclinical studies

CI-8993 Preclinical Data

Preclinical efficacy demonstrated in both monotherapy & combination therapy

Monotherapy

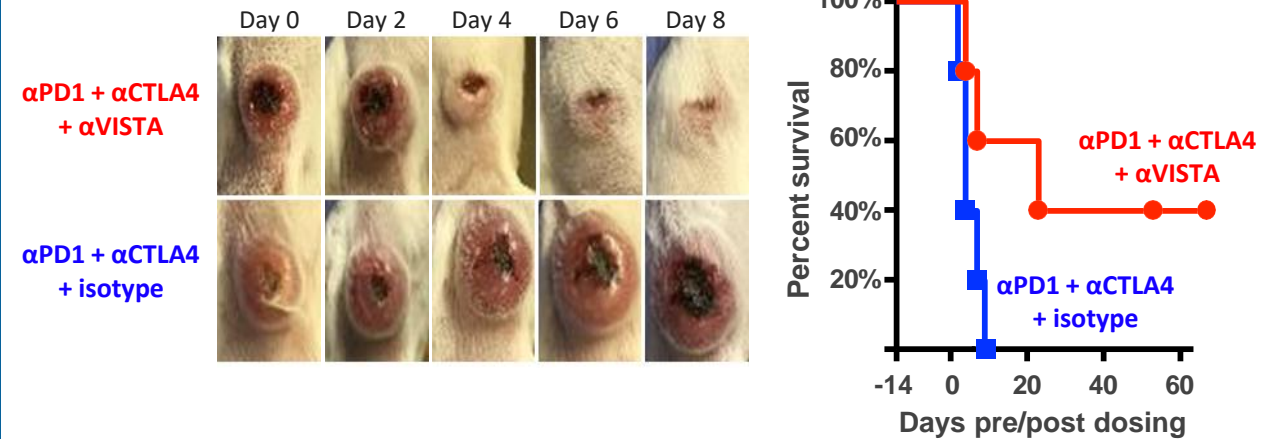
Anti-VISTA inhibits tumor growth in B16ova melanoma model¹



¹ LeMercier 2014

Combination Therapy

Anti-VISTA inhibits xenograft growth in checkpoint resistant CT26 model²

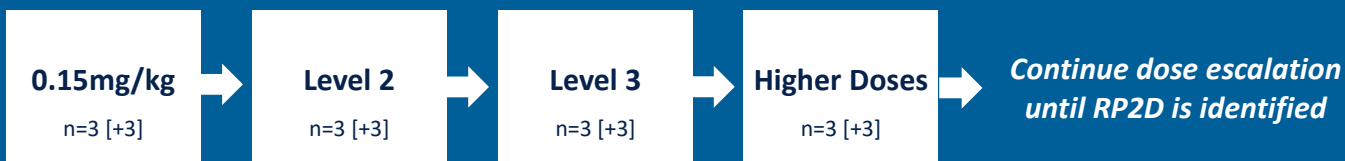


² 2019 IEBMC Conference

CI-8993 Clinical Plan

Phase 1 dose escalation study to begin in 2H 2020

Curis Design for Ph1 Dose Escalation Study



Patient Population

- Patients with advanced refractory solid tumors (includes mesothelioma, melanoma, NSCLC, TNBC)

Treatment

- Bi-weekly dosing
- Mitigate potential toxicities by desensitization, premedication, dosing interval and duration

Objective

- Safety, PK/PD, tolerability during dose escalation
- Efficacy during expansion

Prior clinical development of CI-8993:

CI-8993 was originally developed by Janssen (JNJ-61610588)

- JNJ licensed VISTA IP from ImmuNext in 2012 and initiated a Ph1 study in 2016
- 12 patients were enrolled; initial dose level was 0.005mg/kg
- Low-grade transient Cytokine Release Syndrome (CRS) seen at 0.15mg/kg and above

JNJ halted study after 1 DLT at sub-therapeutic dose level

- The only patient treated at 0.3mg/kg experienced grade 3 CRS-associated encephalopathy after 36hrs on treatment
- Patient was initially treated w/antibiotics; symptoms resolved after treatment with tocilizumab
- JNJ opted to halt the study and return IP to ImmuNext

Target range for expected efficacy (0.5 – 2.0mg/kg) was never reached

Curis Ph1 Study Incorporates Key Learnings from Janssen Ph1 Study

- CRS is likely an on-target toxicity; indicates drug is hitting the target and inducing inflammatory response
- Oncology community now familiar with managing CRS; NCCN guidelines were issued in 2018
- Shared plan for managing CRS and enabling escalation to therapeutic dose levels with FDA
- FDA approved IND in June 2020

A circular inset containing a microscopic image of a cell cluster, likely a tumor spheroid, is positioned behind the text. The cluster is composed of numerous small, blue-stained cells, with a denser core and a more diffuse outer layer. The background of the slide is a light blue gradient with faint, larger-scale circular patterns.

Targeted Programs in Heme Malignancies

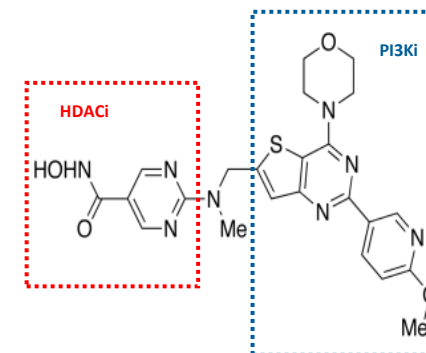
Fimepinostat: In development for treatment of MYC-altered cancers

Fimepinostat Overview

In Development for Patients with MYC-Altered Cancers

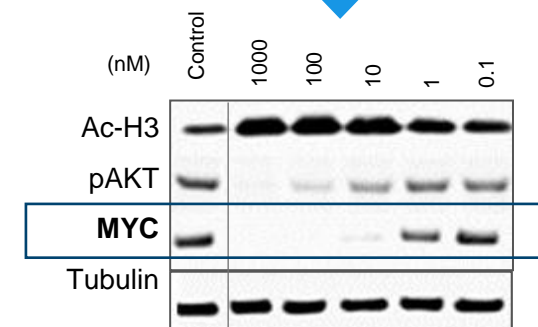
| Profile | |
|-------------------------------|---|
| Value Proposition | <ul style="list-style-type: none">First-in-class drug candidate with demonstrated anti-cancer activity as a single agent in MYC-altered patients in Ph1 and Ph2 trialsComposition-of-matter IP extends into 2032 |
| Population | <ul style="list-style-type: none">Patients with MYC-altered cancer(>50% of all cancers are effected by MYC)³Collaborating with DarwinHealth on characterization of biomarkers and tumor type alignments to identify potential therapeutic opportunities |
| Product Candidate Description | <ul style="list-style-type: none">Potent and orally bioavailable dual inhibitor of HDAC and PI3K enzymes¹Favorable safety profile in over 200 patients |

Mechanism #1
The HDAC component
Suppresses
MYC transcription²



Mechanism #2
The PI3K component
Enhances
MYC destruction²

Dual Mechanism leads to
potent and dose-dependent downregulation of MYC protein



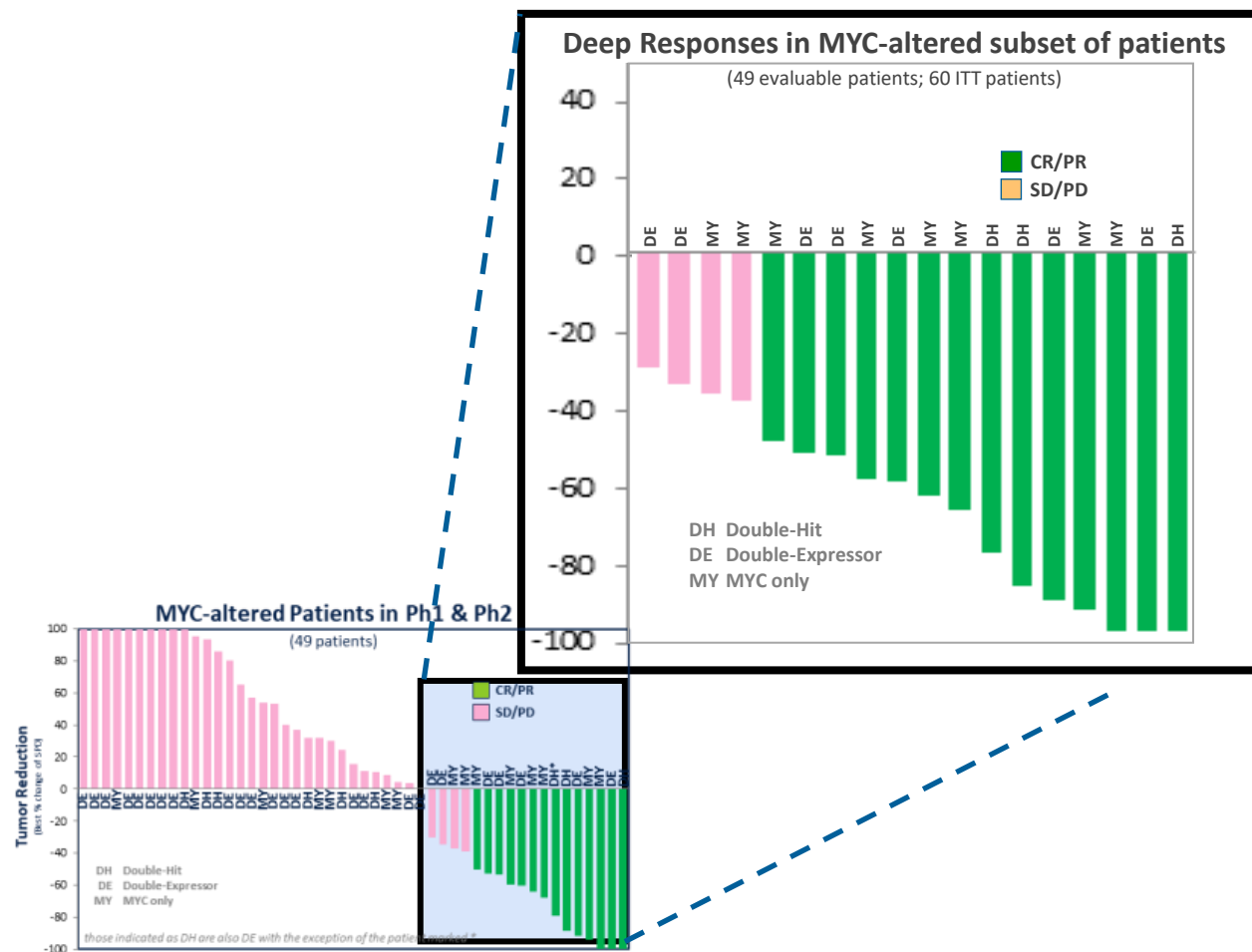
Protein levels in DLBCL cells after treatment with Fimepinostat
(Curis Preclinical Study)

1) Qian et.al. Clin Cancer Res. 2012. 18: 4104

2) Sun et.al. Mol Cancer Ther. 2017. 6: 285

3) Chen et al. Nature. 2018 Feb 23. 3:5

Fimepinostat Clinical Data Provides Strong Rationale For Development in MYC-Altered Lymphoma



Monotherapy Anti-Cancer Activity

Deep responses

- 8 complete responses (CR); 6 partial responses (PR)
- 2 patients able to proceed to transplant

Durable responses

- Median duration = 13.6 months

Fast Track designation received

- Following FDA review of clinical data

Evaluating potential therapeutic opportunities for fimepinostat in research collaboration with DarwinHealth

Summary

| | |
|----------------------------|--|
| Investment Thesis | Curis seeks to develop novel, first-in-class, cancer therapeutics that we believe have significant potential in areas of unmet patient need |
| Robust Pipeline | <p>CA-4948: first-in-class inhibitor of IRAK4 in oncology <i>There are no drugs currently approved for IRAK4 inhibition in oncology</i></p> <p>CI-8993: first-in-class antagonist of VISTA <i>There are no drugs currently approved for VISTA inhibition</i></p> <p>Fimepinostat: first-in-class suppressor of MYC <i>There are no drugs currently approved for MYC inhibition</i></p> |
| Potential Catalysts | <p>2H 2020: Updated efficacy data for CA-4948 Ph1 study in NHL</p> <p>2H 2020: Initial efficacy data of CA-4948 Ph1 study in AML/MDS patients</p> <p>2H 2020: Initiation of CI-8993 dose escalation Ph1 study</p> |

Leadership Team





End of Corporate Presentation

NASDAQ: CRIS

