Corporate Presentation

November 2018

NASDAQ: CRIS

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," 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.

Evolution of Curis

Progressing from Pipeline Building to Clinical Execution

Curis has built a novel pipeline with three first-in-class programs.
In 2019, our focus shifts to efficient clinical execution and the reporting of efficacy data.

2014-2017

Pipeline Building

- Identify targets of interest and design first-in-class molecules to hit them
- Establish collaborations to in-license novel technology

2018

Regulatory Planning

- Consult with investigators and regulatory agencies to determine clinical path
- Identify the right patient populations for our programs

2019

Clinical Execution

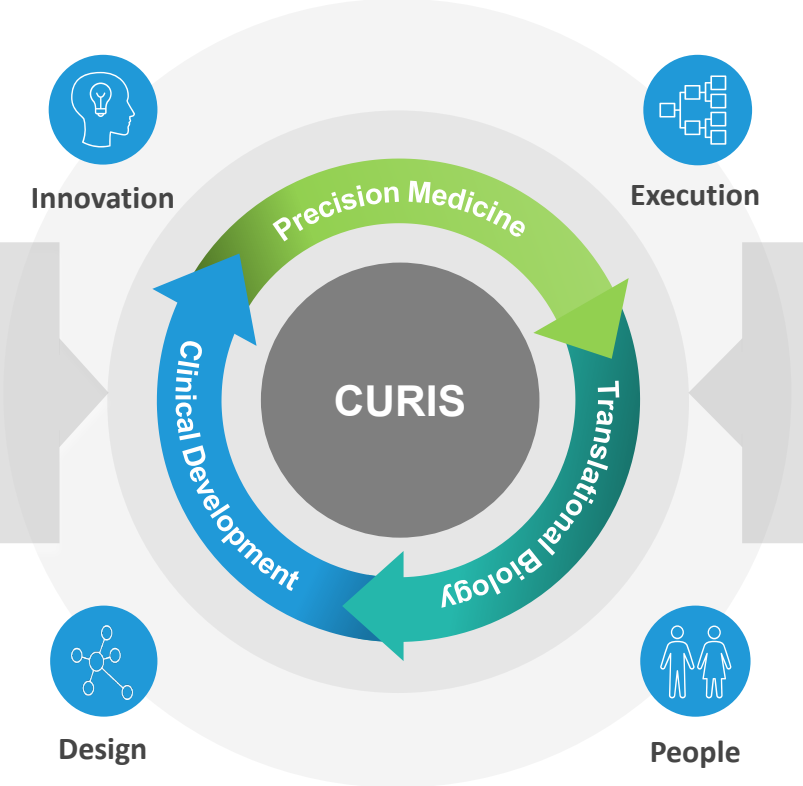
- Report Efficacy Data for Fimepinostat combination in DH/DE DLBCL
- Report Efficacy Data for CA-170 in Mesothelioma
- Report Efficacy Data for CA-4948 in MYD88 DLBCL/WM

Note: This slide contains forward-looking statements about Curis's potential 2019 data catalysts within the meaning of the Private Securities Litigation Reform Act of 1995, as amended. The potential 2019 data catalysts 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..

Focusing on the New Generation of Targeted Drugs for the Treatment of Cancer

Mission

Help patients suffering with cancer to live longer and healthier lives

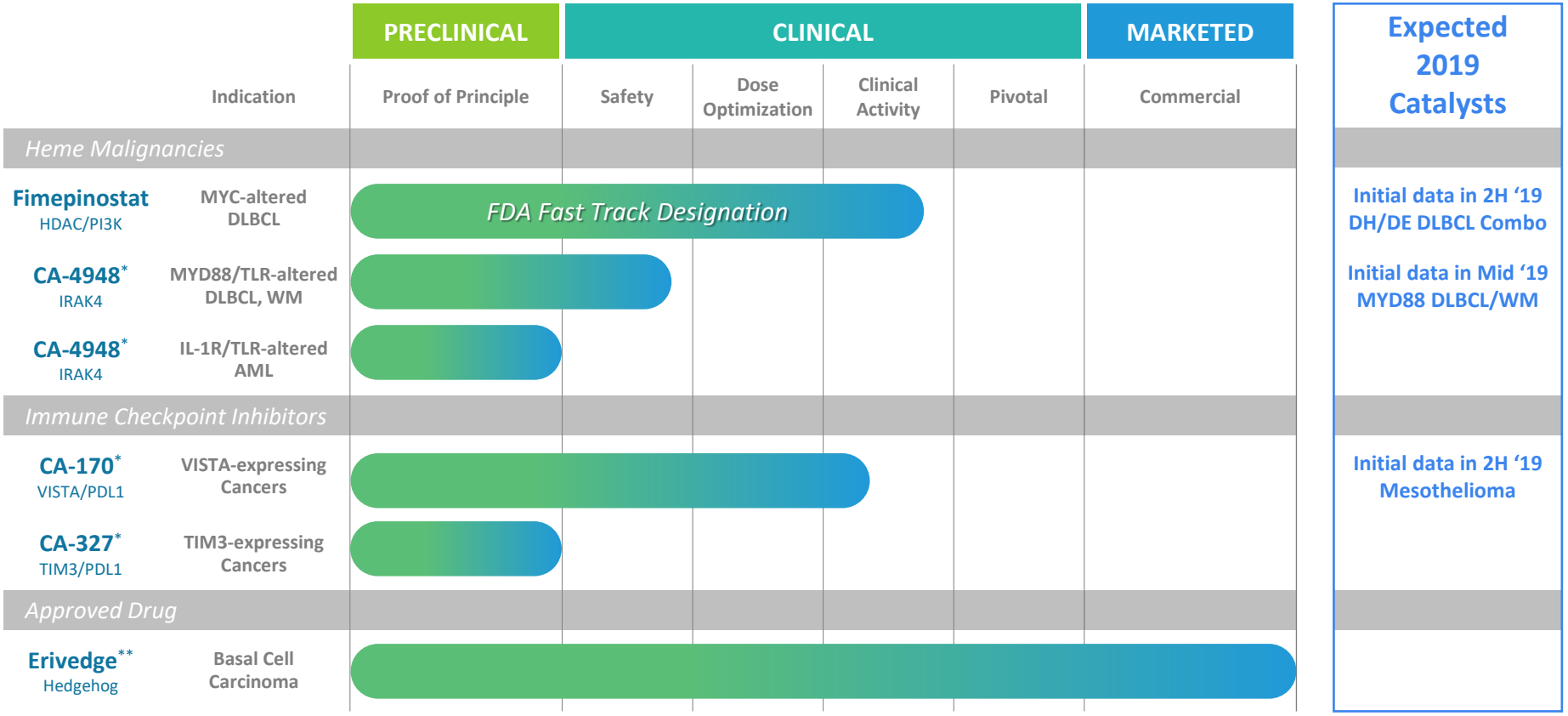


Strategy

Select the *right* targets
Design the *right* drugs
Study the *right* patients

Pipeline of Oncology Drug Candidates

First-in-Class, orally available, targeted small molecules



* IP licensed from Aurigene

** IP licensed to Genentech (Curis receives royalty income)

Targeted Drugs in Heme Malignancies

Fimepinostat: For treatment of MYC-altered DLBCL

Diffuse Large B-Cell Lymphoma (DLBCL)

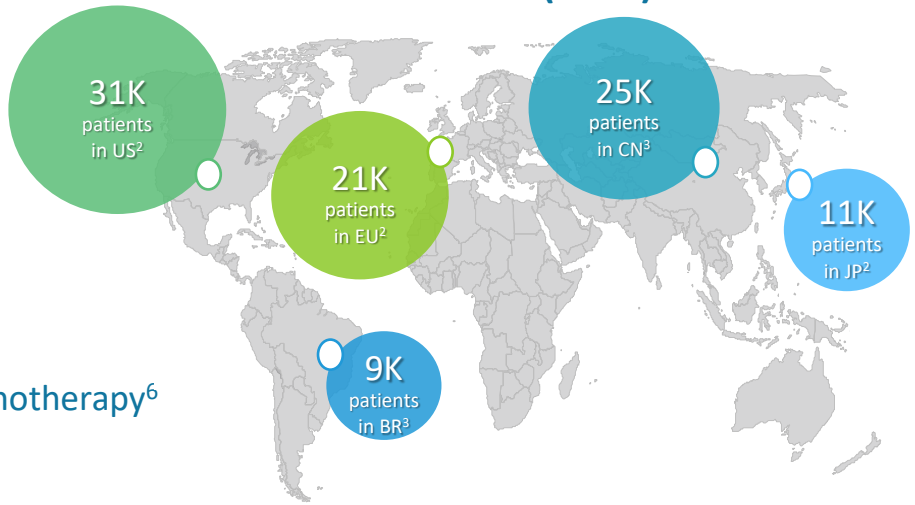
Most common form of NHL accounting for ~30% of cases[1]

- Population
  - ~ 100,000 DLBCL patients diagnosed per year[2,3,4]
    (~35% of DLBCL patients are MYC-altered)[5]

- Current Treatment

1st Line Treatment:	CHOP/EPOCH ± Rituximab[6]
2nd Line Treatment:	ICE/Benda ± Rituximab[6]
Relapsed/Refractory:	SCT/CAR-T[5,6]
	or
	Single/Multiple Agent Chemotherapy[6]

DLBCL Incidence (2017)



- Unmet Need
  - Majority of R/R DLBCL patients are ineligible for or do not receive SCT/CAR-T[6,7,8]
  - Poorest prognosis for patients with Double-hit (DH) and Double-expressor (DE) lymphoma[5]
  - No current treatments target the molecular genetics of disease (e.g., MYC, BCL2, MYD88) that contribute to its chemo-resistance[9,10]

1) Cowen Therapeutic Outlook Report , 2017; 2) Decision Resources. NHL/CLL Market Forecast. 2018; 3) Decision Resources. NHL/CLL Emerging Markets Data. 2018; 4) UpToDate, 2018; 5) Landsburg et al. Curr Hematol Malig Rep. 2016 June;11(3):208-17; 6) Galaznik et al. Evaluation of Treatment Patterns Among Patients with DLBCL. ISPOR 22nd Annual Meeting. Boston, MA. May 20–24, 2017; 7) Trinity Partners, 2018; 8) Facts About CAR-T Therapy. Leukemia & Lymphoma Society. 2017; 9) Maji et al. Advances in Cancer Research. 2018. 137:37-75; 10) Kumari et al. Genes (Basel). 2017 Jun; 8(6): 158.

Fimepinostat Overview

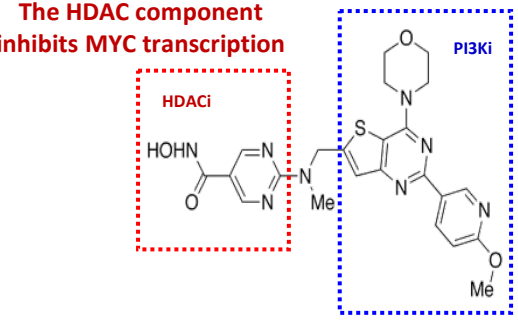
In development for patients with MYC-altered disease

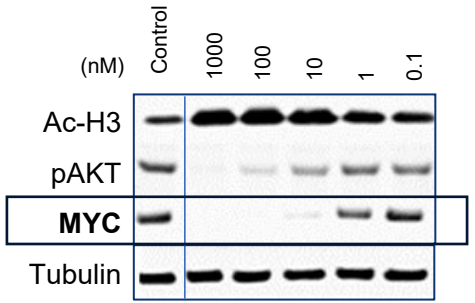
Profile	
Value Proposition	• First-in-class drug with demonstrated anti-tumor activity in DLBCL patients with high unmet need • Composition-of-matter IP extends into 2032
Population	• MYC-altered DLBCL, including Double-Hit / Double-Expressor Lymphoma
Product Description	• Potent and orally bioavailable dual inhibitor of HDAC and PI3K enzymes[1] • HDAC component inhibits transcription of MYC and MYC-regulated genes[2] • PI3K component results in ubiquitin mediated MYC protein degradation[2] • Favorable safety profile in over 200 patients

1) Qian et.al. Clin Cancer Res. 2012. 18: 4104
2) Sun et.al. Mol Cancer Ther. 2017. 6: 285

The HDAC component inhibits MYC transcription

The PI3K component decreases MYC protein levels



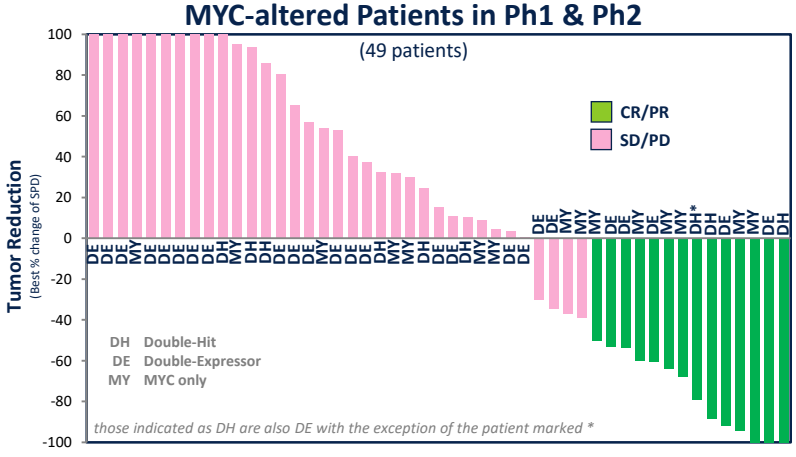


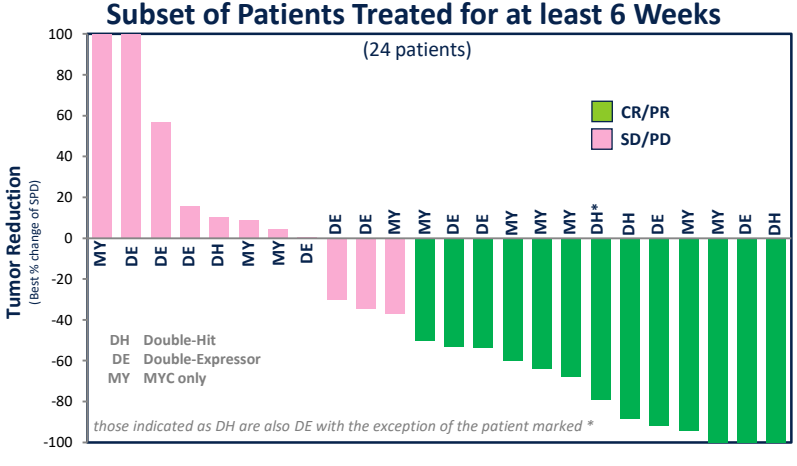
Potent and dose-dependent downregulation of MYC protein

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

Fimepinostat Clinical Data To-Date

Durable responses (median duration of response is 13.6 months)





subset of patients

60 patients (49 evaluable) with MYC-altered disease

- 8 CR and 6 PR, including 8 patients that are DH and/or DE
- Responses are durable (mDoR is 13.6 months)

Patients able to stay on therapy ≥ 6 weeks achieved higher ORR

- Fimepinostat efficacy improves with multi-cycle exposure
- Combination with another therapy may result in quicker responses and enable patients to remain on fimepinostat for ≥ 6 weeks

Strong Rationale for Combination Strategy

Combining fimepinostat with an anti-lymphoma agent could allow more patients to see the strong and delayed benefit of fimepinostat treatment

Note:
Tumor Reduction Data from Ph1 (NCT01742988) and Ph2 (NCT02674750) studies

Combination Therapy Strategy

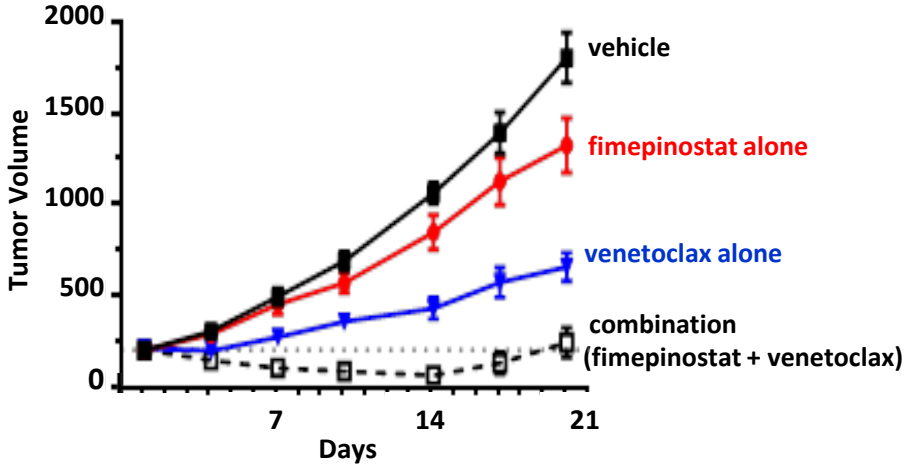
Fimepinostat + venetoclax as a potential treatment for DH/DE Lymphoma

DLBCL with alterations in both the MYC gene and the BCL2 gene is defined as Double-Hit Lymphoma

MYC is targeted by fimepinostat
BCL2 is targeted by venetoclax

- As a monotherapy, fimepinostat resulted in a 23% ORR in patients with MYC-altered R/R DLBCL[1]
- As a monotherapy, venetoclax resulted in an 18% ORR in patients with R/R DLBCL[2]
- In non-clinical studies, fimepinostat and venetoclax are highly synergistic[3]
- NCCN Guidelines explicitly identify lymphoma that has MYC and BCL2 alteration as a discrete entity with poorer prognosis, where clinical trial is indicated

In Preclinical Studies
Fimepinostat + Venetoclax are Highly Synergistic
(DH DOHH-2 DLBCL model)[4]

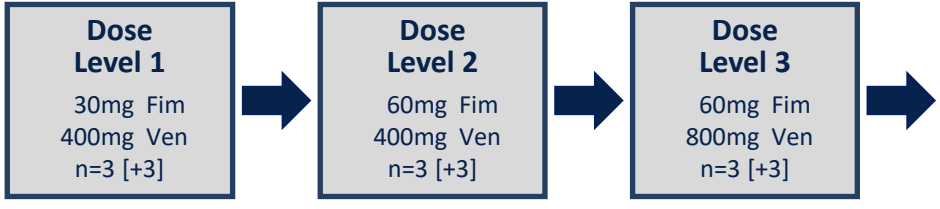


1) 14 PR/CR out of 60 patients in Ph1 & Ph2 (23% ORR)
2) Davids et al. JCO. 2017. 35:826
3) Sun et al. Blood. 2016. 128:4184
4) Data from Curis preclinical study

Fimepinostat

Clinical Plan for Combination Study with Venetoclax

Expected 2019 Catalyst Initial Data in 2H '19



Dose escalation as needed until RP2D is identified

Patient Population

- Patients with R/R DLBCL, including DH/DE Lymphoma
- 8 Study Sites (US only)

Objective

- Safety/Tolerability, PK, PD, Recommended Phase 2 Dose (RP2D), anti-cancer activity

Treatment

Fimepinostat: Oral daily (5 days on, 2-days off)
Venetoclax: Oral daily (with dose ramp-up)

Targeted Programs in Heme Malignancies

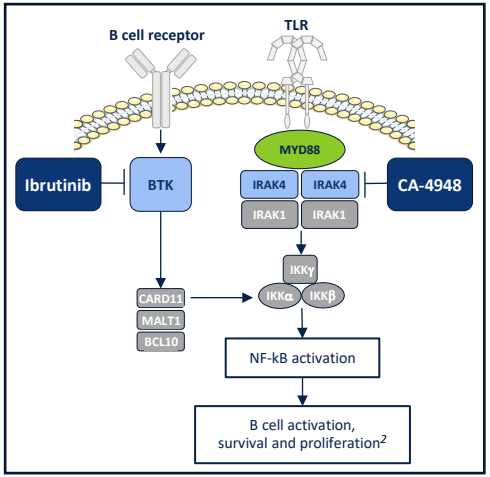
CA-4948: For treatment of MYD88/TLR-altered DLBCL and IL-1R/TLR-altered AML

CA-4948 Overview

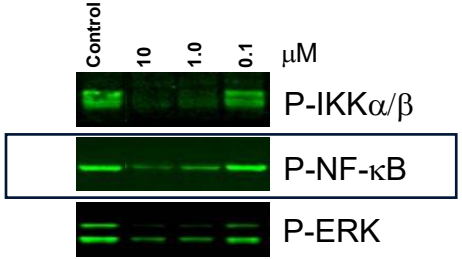
In development for patients with MYD88/TLR-altered disease

Profile	
Value Proposition	• First-in-class IRAK4 inhibitor in cancer • A defined subset of malignancies are driven by overactivity of the TLR/IL-1R pathway, which is dependent on IRAK4 • Composition-of-matter IP extends into 2035
Population	• Lymphoma: MYD88-altered DLBCL, MYD88-altered Waldenström's macroglobulinemia • Leukemia: IL-1R/TLR-altered AML
Product Description	• Potent and orally bioavailable inhibitor of IRAK4 for treatment of MYD88-altered tumors

Inhibition of this pathway was validated in Waldenström's macroglobulinemia with ibrutinib[1]



Potent and direct inhibitor of NF-kB signal transduction[3]



Phospho-protein levels in AML cells after treatment with CA-4948

Potent and selective inhibitor of IRAK4 enzyme[4]

	Affinity
Kinase	K_d (nM)
IRAK4	23
IRAK1	12,000
IRAK2	>20,000
IRAK3	8,500

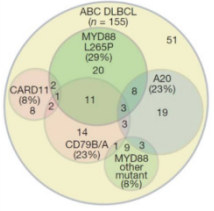
1) IMBRUVICA Package Insert. Rev 08/2018
2) Küppers et al. J Exp Med. 2015. 212(13): 2184.
3) Booher et al. AACR 2017 (poster #1168)
4) Data from Curis preclinical study

CA-4948 is Active in DLBCL

Potent anti-tumor activity in MYD88-altered DLBCL in Preclinical Studies

Overlap of Gene Mutations in ABC-DLBCL

(Image adapted from Ngo et al. Nature. 2011.)

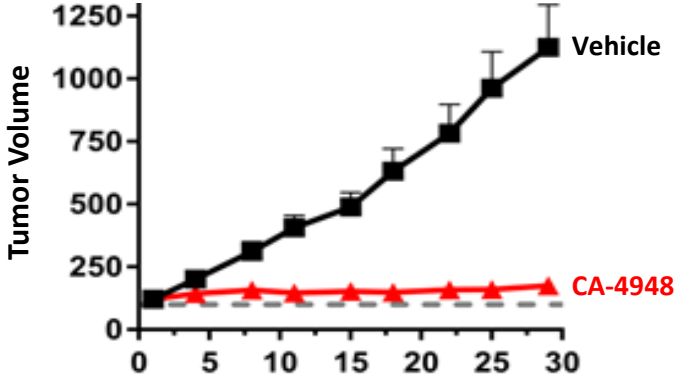


MYD88 alterations prevalent in 29% of ABC-DLBCL[1]

- CA-4948 exhibits potent anti-tumor activity in MYD88-altered ABC-DLBCL in preclinical studies
  - MYD88 mutation is associated with constitutive activation of NF-κB signaling[1]
  - NF-κB and JAK kinase signaling promotes malignant cell survival in ABC-DLBCL[1]
  - ABC subtype of DLBCL is the most difficult subtype to treat, despite recent advances in therapy[1]
- Ongoing Ph1 clinical trial designed to demonstrate anti-tumor activity in lymphoma and leukemia

Anti-tumor Activity in MYD88-altered DLBCL in preclinical studies[3]

(OCI-Ly10)

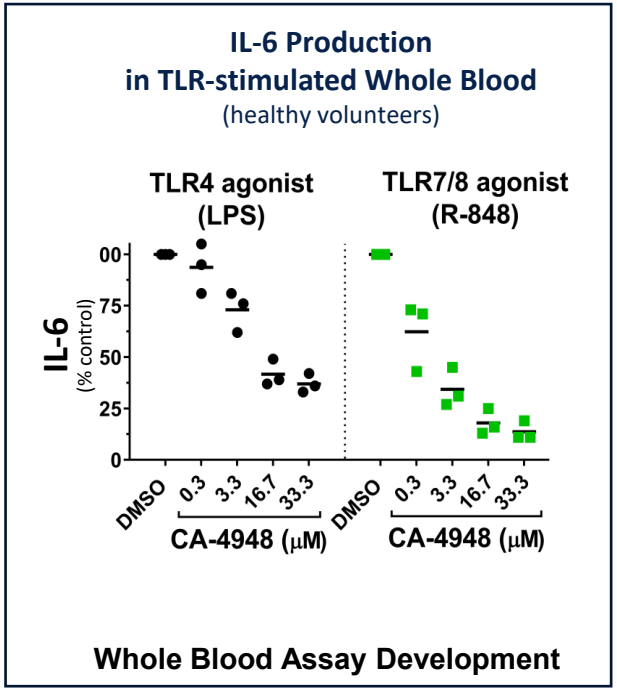


1) Ngo et al. Nature. 2011 Feb 3;470(7332):115-9
2) Caner et al. Genet Test Mol Biomarkers 19, 372–378
3) Data from Curis preclinical study; Booher, et al. CA-4948 IWWM 2018 Poster

CA-4948 Early Clinical Data

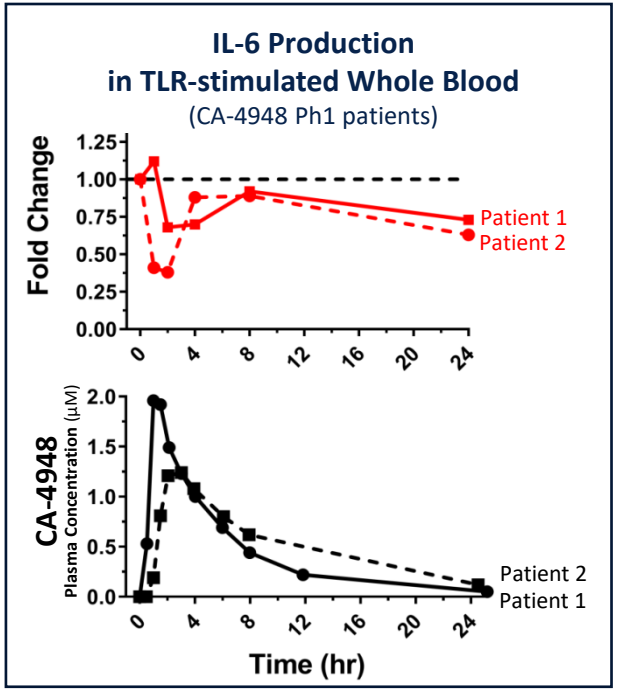
Cytokine production dropped with exposure to CA-4948

In whole blood from healthy volunteers, cytokine production dropped when incubated with CA-4948



(Curis internal analysis performed ex-vivo, n=3)

In whole blood from patients treated with CA-4948, cytokine production dropped, mirroring drug exposure



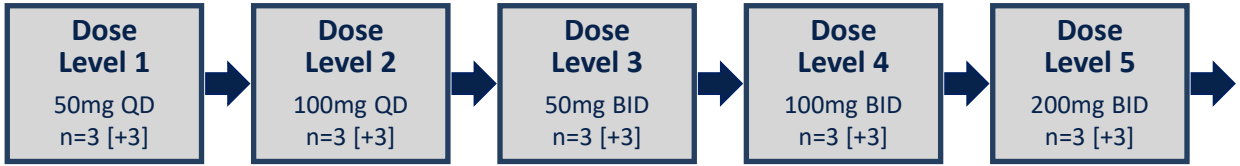
(Curis internal analysis performed ex-vivo, n=2)

CA-4948

Clinical Plan for Ongoing Dose Escalation Study

Expected 2019 Catalyst
Initial Data in Mid '19

(actual dose levels and cohort size may vary based on evolving data)



Dose escalation as needed until RP2D is identified

Patient Population

- Patients with R/R DLBCL and WM, including patients with MYD88-altered disease
- 9 Study Sites (US only)

Objective

- Safety/Tolerability, PK, PD, Recommended Phase 2 Dose (RP2D), anti-cancer activity

Treatment

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

Small Molecule Immune Checkpoint Inhibitor

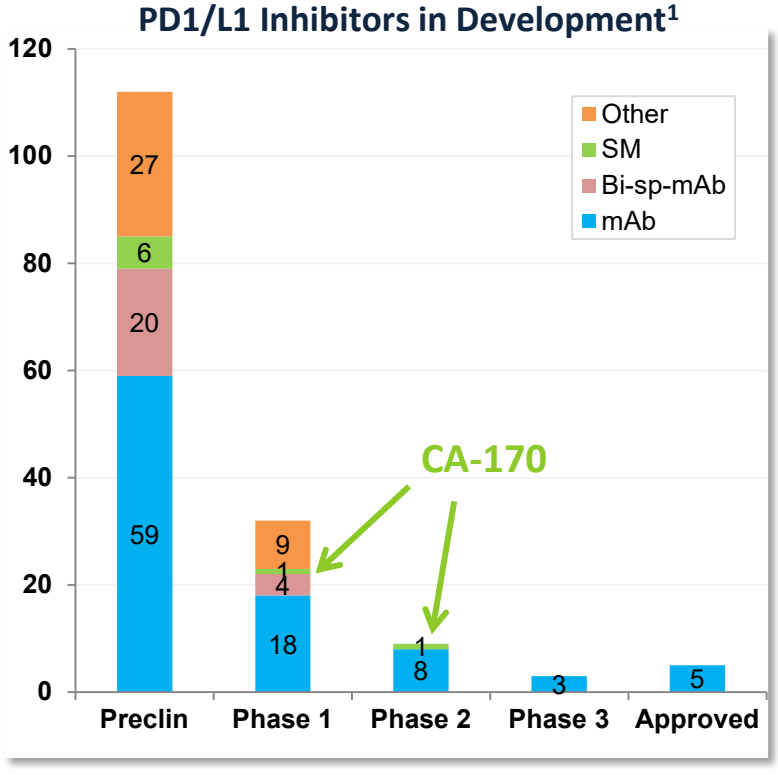
Curis is the first company to advance an oral small molecule checkpoint inhibitor into the clinic

- *CA-170 is the first oral small molecule targeting VISTA (and also only anti-VISTA drug in the clinic)*
- *CA-170 is the first oral small molecule targeting PD-L1 in the clinic*

Checkpoint Inhibitor Therapy

Small molecule approach provides differentiated drug profile

- Curis is the first company to advance an oral small molecule checkpoint inhibitor into the clinic
- CA-170 is the first-in-class oral checkpoint inhibitor targeting both VISTA and PD-L1
- Advantages of oral small molecules:
  - Short half-life (< 24hrs), allows rapid cessation in the event of AE
  - Ability to adjust dosing schedule, especially important with combination therapy
  - Convenient administration, especially important with chronic therapy



1) Tang et al. Annals of Oncology 0: 1–8, 2017

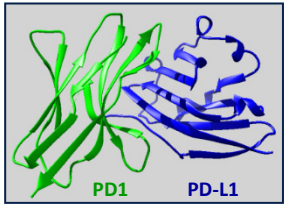
CA-170 Overview

In development for patients with VISTA/PDL1-expressing cancers

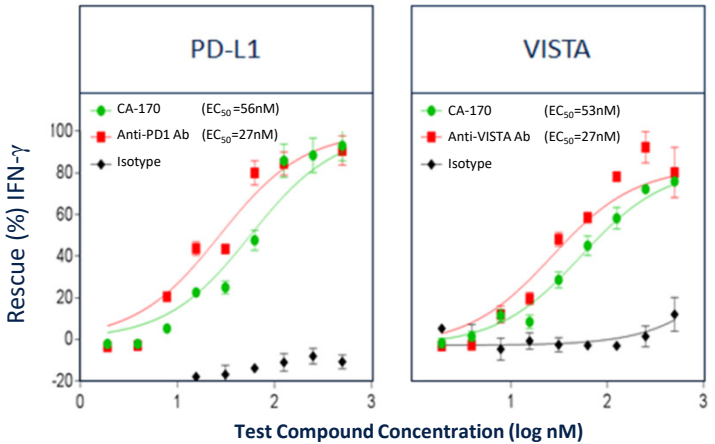
Profile	
Value Proposition	• First-in-class oral inhibitor of VISTA • First-in-class oral inhibitor of PD-L1 • Composition-of-matter IP through 2034
Population	• Patients with VISTA-expressing cancers • Patients with tumors not addressable by anti-PD1 /PD-L1 treatment alone
Product Description	• Orally available, small molecule targeting VISTA and PD-L1 immune checkpoints • Favorable safety profile demonstrated in 59 patients[2]

1) Lazorchak et al. AACR 2016
2) Data from Ph1 (NCT02812875) study

CA-170 Binds to the Receptor-Ligand Interaction Site



Dose dependent activation of PD-L1 or VISTA-inhibited human T cells *ex-vivo*[1]



IFN-γ production used as a marker for T cell activation

CA-170 Clinical Data To-Date

Tumor shrinkage observed in multiple patients

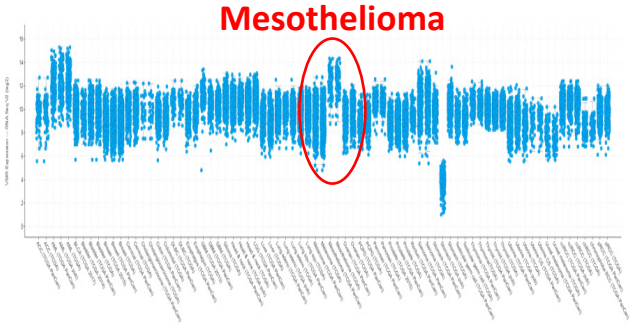
1) Bang et al. SITC 2017

VISTA Targeting Strategy

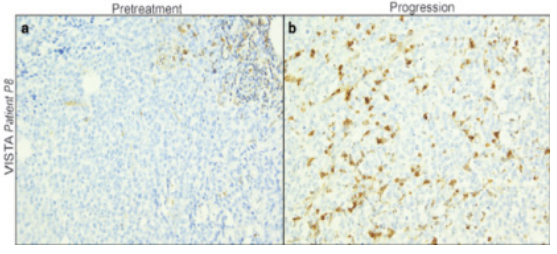
VISTA is highly expressed on tumor cells and infiltrating immune cells

- In addition to T cells, VISTA is expressed on tumor cells in subpopulations of certain cancers
  - ~ 90% of Mesothelioma cells[1]
  - ~ 20% of NSCLC cells[2]
  - ~ 14% of TNBC cells[3]
  - ~ 8% of gastric cancer cells[4]
- VISTA expression on immune cells is up-regulated after checkpoint inhibitor therapy
  - VISTA expression is induced on T Cells and macrophages in response to ipilimumab treatment[5]
  - ~ 60% of melanoma patients show increased VISTA expression at progression[6]

VISTA Gene Expression Analysis (TCGA)[7]



Melanoma[6]



1) Zauderer MG. ID 13232. WCLC. 2018; 2) Villarroel-Espindolai et al. Clinical Cancer Research. 2018; 3) Gruber et al. Poster 4749. AACR. 2018; 4) Boger et al. OncoImmunology. 2017. Volume 6. Number 4; 5) Gao et al. Nature. 2017. 23: 551–555; 6) Kakavand et al. Modern Pathology. 2017; 7) The Cancer Genome Atlas, 2018

CA-170

Clinical Plan for Efficacy Study in Mesothelioma

Expected 2019 Catalyst
Initial Data in 2H '19

Patient Population

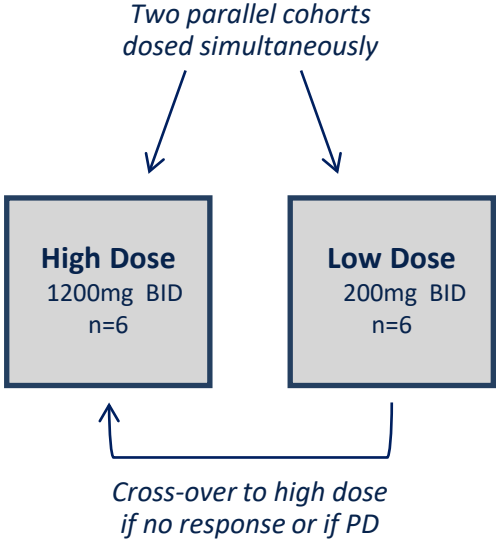
- Patients with Mesothelioma (High VISTA), that is incurable and previously treated
- 6 Study Sites (US and UK)

Objective

- Anti-cancer efficacy

Treatment

- Randomize to High Dose or Low Dose
- Crossover to High Dose, if no response or if disease progresses (PD)



Summary

Financial Data as of Sept 30, 2018	
$30.8M	Cash, Cash Equiv & Marketable Securities
33.1M	Basic Shares Outstanding
36.9M	Fully Diluted Shares Outstanding

Expected 2019 Catalysts	
Fimepinostat Combination Therapy	2H ’19 Initial efficacy data in DH/DE DLBCL
CA-4948	Mid ’19 Initial efficacy data in MYD88-Altered DLBCL, WM
CA-170	2H ’19 Initial efficacy data in Mesothelioma

NOTE: Fully Diluted Shares = 33.1M basic shares + 3.8M options

NASDAQ: CRIS