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 clinical 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.

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Curis Mission & Strategy

Developing the New Generation of Targeted Cancer Drugs

Mission
Work relentlessly to develop innovative and differentiated therapeutics that improve the lives of cancer patients

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

**Overview**

<table>
<thead>
<tr>
<th>Investment Thesis</th>
</tr>
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<tbody>
<tr>
<td>Curis seeks to develop novel, first-in-class, cancer therapeutics that we believe have significant potential in areas of unmet patient need</td>
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</table>

<table>
<thead>
<tr>
<th>Robust Pipeline</th>
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<td>CA-4948: first-in-class inhibitor of IRAK4 in oncology</td>
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<td>Fimepinostat: first-in-class suppressor of MYC</td>
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<td>There are no drugs currently approved for MYC inhibition</td>
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<tr>
<th>Corporate</th>
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<tr>
<td>• Experienced management team with proven capabilities</td>
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<tr>
<td>• Curis R&amp;D pioneered the first-in-class inhibitor of the Hedgehog pathway (Erivedge®) partnered with and commercialized by Genentech/Roche for advanced basal cell carcinoma</td>
</tr>
<tr>
<td>• Cash and investments of $23.6M as of Sep 30, 2020 (in addition to $30M stock purchase commitment from Aspire Capital)</td>
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</tbody>
</table>
Evolution of Curis

Progressing through Clinical Studies on the Path to Potential Registration

2018

Target Discovery

✓ Work with investigators and FDA to determine optimal clinical path
✓ Identify patient populations and initiate clinical studies

2019

Initial Clinical Data

✓ Report preliminary efficacy data for CA-4948 Ph1 study in NHL
✓ Evaluate new published research in IRAK4-L expression and the potential opportunity for CA-4948 in AML/MDS
✓ Report efficacy data for CA-170 study (small molecule targeting VISTA) in mesothelioma

Define Registration Path

• Determine R2PD of CA-4948 in NHL and define path to potential registration
• Capitalize on newly identified opportunity in AML/MDS and initiate a Ph1 study of CA-4948 in patients expressing IRAK4-L
• Capitalize on unique clinical experience with VISTA by in-licensing the leading monoclonal antibody program (CI-8993) and initiating a Ph1 study in solid tumors

2020


# Pipeline

All Curis programs are novel, first-in-class

<table>
<thead>
<tr>
<th>Indication</th>
<th>PRE-CLINICAL</th>
<th>CLINICAL</th>
<th>MARKETED</th>
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<tbody>
<tr>
<td><strong>Heme Malignancies</strong></td>
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<tr>
<td>CA-4948* IRAK4 MYD88/TLR-altered</td>
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<tr>
<td>Lymphoma (NHL)</td>
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<tr>
<td>CA-4948* IRAK4 IRAK4L-expressing</td>
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<tr>
<td>Leukemia (AML/MDS)</td>
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<tr>
<td>Fimepinostat HDAC/PI3K MYC-altered</td>
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<tr>
<td>Cancers</td>
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<tr>
<td><strong>Immune Checkpoint Inhibitors</strong></td>
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<tr>
<td>CI-8993* VISTA VISTA-expressing/infiltrated</td>
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<tr>
<td>Cancers</td>
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<tr>
<td>CA-327* PDL1/TIM3 PDL1/TIM3-expressing</td>
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<td>Cancers</td>
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<tr>
<td>CA-170* PDL1/VISTA PDL1/VISTA-expressing</td>
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<td>Cancers</td>
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<tr>
<td>Erivedge*** Hedgehog Basal Cell Carcinoma</td>
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* IP licensed from Aurigene  
** Option to license IP from ImmuNext  
*** IP licensed to Genentech (Curis receives royalty income)
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**
  - 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**
  - Lymphoma: All patients treated with ibrutinib (IRAK4i has strong synergy with BTKi)
  - Leukemia: >50% of AML/MDS patients (the population which overexpresses IRAK4-L)

- **Product Candidate Description**
  - Potent and orally bioavailable inhibitor of IRAK4 for treatment of MYD88-altered lymphomas and spliceosome-mutated leukemia

### Affinity

<table>
<thead>
<tr>
<th>Kinase</th>
<th>$K_d$ (nM)</th>
</tr>
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<tbody>
<tr>
<td>IRAK4</td>
<td>23</td>
</tr>
<tr>
<td>IRAK1</td>
<td>12,000</td>
</tr>
<tr>
<td>IRAK2</td>
<td>&gt;20,000</td>
</tr>
<tr>
<td>IRAK3</td>
<td>8,500</td>
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</tbody>
</table>

**Designed to be best-in-class IRAK4 inhibitor**

**In Lymphoma:** Potent suppressor of NF-κB signal transduction

**In Leukemia:**

>50% of AML/MDS patients overexpress IRAK4-L

---

1) Data from Curis preclinical study
2) Booher et al. AACR 2017 (poster #1168)
3) Smith et al. Nat Cell Biol 2019
CA-4948

**Mechanism of Action**

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

**Oncogenic**
- Dysregulation drives excessive B Cell proliferation

**Pathway validated**
- MCL, MZL, CLL, Waldenström’s macroglobulinemia

**BTK inhibition effective**
- Ibrutinib is FDA approved

---

**Oncogenic**
- Dysregulation drives excessive B cell proliferation

**Dependent upon IRAK4**
- Signaling requires myddosome, which requires IRAK4

**Strong Synergy**
- Inhibition highly synergistic with BTK inhibition

---

1) IMBRUVICA Package Insert. Rev 08/2018
4) Smith et al. Nat Cell Biol 2019
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

Preliminary Phase 1 Data Readout
- Generally well tolerated
- Favorable PK profile, PD, and anti-cancer activity
- 5 of 6 patients dosed at 200mg or higher have seen reduction
- Report updated safety and efficacy data in 2020
CA-4948 in Lymphoma

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

Change in Tumor Burden

- 14 Evaluable Patients at Sub-Therapeutic Dose Levels
  - 50mg QD – 100mg BID
- 6 Evaluable Patients at Therapeutic Dose Levels
  - 200mg BID and higher

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

IgM SPEP for WM patient who was treated at multiple 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 DLBCL\(^1\)

(OCI-Ly10)

1) Data from Curis preclinical study; Booher, et al. 4th Waldenstrom Roadmap Symposium
CA-4948 in AML/MDS

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

Blocking IRAK4-L reduces the formation of leukemia colonies in preclinical studies

CA-4948 Directly Targets IRAK4

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

CA-4948 treatment reduces leukemic blasts in patient-derived xenografts

Smith et al. Nat Cell Biol. 2019

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

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

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

Smith et al. 2019

Smith et al. 2019

Smith et al. 2019
CA-4948 in AML/MDS

Phase 1 Study Design

Upcoming Milestones

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

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

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

**200mg BID**
- n=3 [+3]

*Continue dose escalation until RP2D is identified*

**Higher Doses**
- n=3 [+3]
Monoclonal Antibody Immune Checkpoint Inhibitor

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

### In Development for VISTA Expressing and Infiltrated Cancers

<table>
<thead>
<tr>
<th>Profile</th>
<th></th>
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<tbody>
<tr>
<td><strong>Value Proposition</strong></td>
<td>• First-in-class monoclonal antibody antagonist of VISTA</td>
</tr>
<tr>
<td></td>
<td>• No anti-VISTA drugs currently in the clinic</td>
</tr>
<tr>
<td></td>
<td>• Composition-of-matter IP extends into 2034</td>
</tr>
<tr>
<td><strong>Population</strong></td>
<td>• Patients with VISTA-expressing cancers (incl. Mesothelioma, NSCLC, and TNBC)</td>
</tr>
<tr>
<td></td>
<td>• Patients receiving PD1/PDL1 or CTLA4 antibody therapy</td>
</tr>
<tr>
<td></td>
<td>(or those who have already received it and have developed resistance to it)</td>
</tr>
<tr>
<td><strong>Product Description</strong></td>
<td>• Monoclonal antibody developed by ImmuNext/Janssen in partnership with Randy Noelle’s lab at Dartmouth (the co-discoverer of VISTA)</td>
</tr>
<tr>
<td></td>
<td>• IND cleared to proceed by FDA in June 2020</td>
</tr>
</tbody>
</table>
CI-8993 Target Background

VISTA is a Major Checkpoint Regulator

RESEARCH ARTICLE SUMMARY

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

Mohamed A. Eltanbouly, Yanding Zhao, Elizabeth Nowak, Jiannan Li, Evelien Schaafuma, Isabelle Le Mercier, Sabrina Coeuraz, J. Louise Lianes, 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

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

Eltanbouly et al. Science. 2020
CI-8993 Target Background

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

1. Normal Immune Suppression
   - Blocking PD-1 activates T cells
2. Temporary Immune Activation
   - VISTA re-suppresses T cells
3. VISTA-mediated Immune Suppression
   - Blocking VISTA re-activates T cells
4. Alleviation of Immune Suppression
   - T cells Suppressed by VISTA after PD1 Treatment

- T cells Activated after PD1 Treatment
- T cells Re-Activated after VISTA Treatment


1 Data from ImmuNext preclinical studies

blocking PD1 causes up to 5x increase in VISTA expression
CI-8993 Preclinical Data

**Preclinical efficacy demonstrated in both monotherapy & combination therapy**

### Monotherapy

- Anti-VISTA inhibits tumor growth in B16ova melanoma model<sup>1</sup>

![Graph showing tumor size over days in control and aVISTA groups.]

- Control n=14
- aVISTA n=14

### Combination Therapy

- Anti-VISTA inhibits xenograft growth in checkpoint resistant CT26 model<sup>2</sup>

![Graph showing percent survival over days pre/post dosing.]

- αPD1 + αCTLA4 + αVISTA
- αPD1 + αCTLA4 + isotype

---

<sup>1</sup> LeMercier 2014

<sup>2</sup> 2019 IEBMC Conference
CI-8993 Clinical Plan

Phase 1 dose escalation study to begin in 2H 2020

Curis Design for Ph1 Dose Escalation Study

0.15mg/kg
n=3 (+3)

Level 2
n=3 (+3)

Level 3
n=3 (+3)

Higher Doses
n=3 (+3)

Continue dose escalation until RP2D is identified

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
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

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<td>• First-in-class drug candidate with demonstrated anti-cancer activity as a single agent in MYC-altered patients in Ph1 and Ph2 trials</td>
</tr>
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<td>• Composition-of-matter IP extends into 2032</td>
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<th>Population</th>
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<tr>
<td>• Patients with MYC-altered cancer</td>
</tr>
<tr>
<td>• (&gt;50% of all cancers are effected by MYC)³</td>
</tr>
<tr>
<td>• Collaborating with DarwinHealth on characterization of biomarkers and tumor type alignments to identify potential therapeutic opportunities</td>
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<th>Product Candidate Description</th>
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<tr>
<td>• Potent and orally bioavailable dual inhibitor of HDAC and PI3K enzymes¹</td>
</tr>
<tr>
<td>• Favorable safety profile in over 200 patients</td>
</tr>
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</table>

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
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
**Investment Thesis**

Curis seeks to develop novel, first-in-class, cancer therapeutics that we believe have significant potential in areas of unmet patient need.

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<td>2H 2020: Updated efficacy data for CA-4948 Ph1 study in NHL</td>
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<td>2H 2020: Initial efficacy data of CA-4948 Ph1 study in AML/MDS patients</td>
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<tr>
<td>2H 2020: Initiation of CI-8993 dose escalation Ph1 study</td>
</tr>
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</table>
Curis

Leadership Team

Rachel Blasbalg
Head, Human Resources

James Dentzer
President & CEO

Christine Guertin
Head, Regulatory

Robert Martell
Head, R&D

Mark Noel
Head, Intellectual Property

Reinhard von Roemeling
Head, Clinical Development

Raul Soikes
Head, Portfolio Management

Nancy Soohoo
General Counsel

William Steinkrauss
Chief Financial Officer
End of Corporate Presentation

NASDAQ: CRIS