

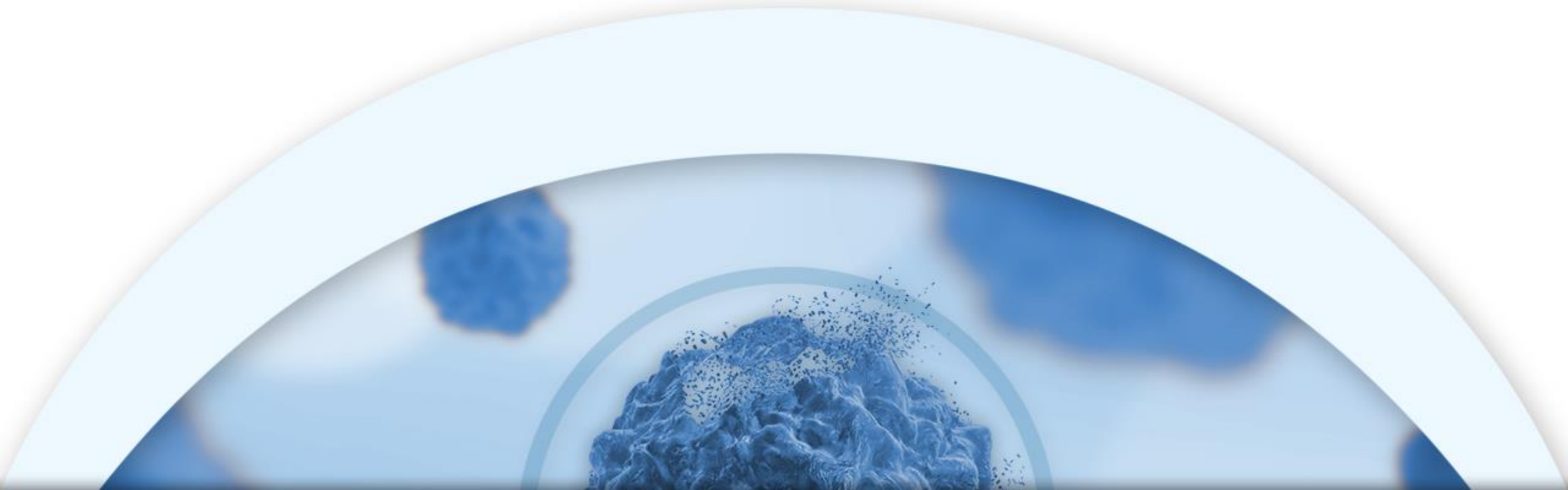


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## CA-4948 & CI-8993 Clinical Data Update

*January 2022*

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# 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, expectations of the potential for Company’s proprietary drug candidates CA-4948 and CI-8993, including with respect to the potency, anti-cancer activity, durability and tolerability of CA-4948 and CI-8993; future studies with respect to CA-4948 and CI-8993; the potential advantages and benefits of CA-4948, CI-8993 and checkpoint inhibitors over other therapies; and the Company’s plans to advance its development programs for CA-4948 and CI-8993, including with respect to anticipated results, clinical trials, regulatory and commercialization plans and timelines. 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](http://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.

# Today's Participants

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- James Dentzer                      President & Chief Executive Officer at Curis
- Robert Martell, MD, PhD        Head of R&D at Curis
- Daniel DeAngelo, MD, PhD      Chief, Division of Leukemia at Dana-Farber Cancer Institute

## *Clinical update on CA-4948 (IRAK4) and CI-8993 (VISTA)*

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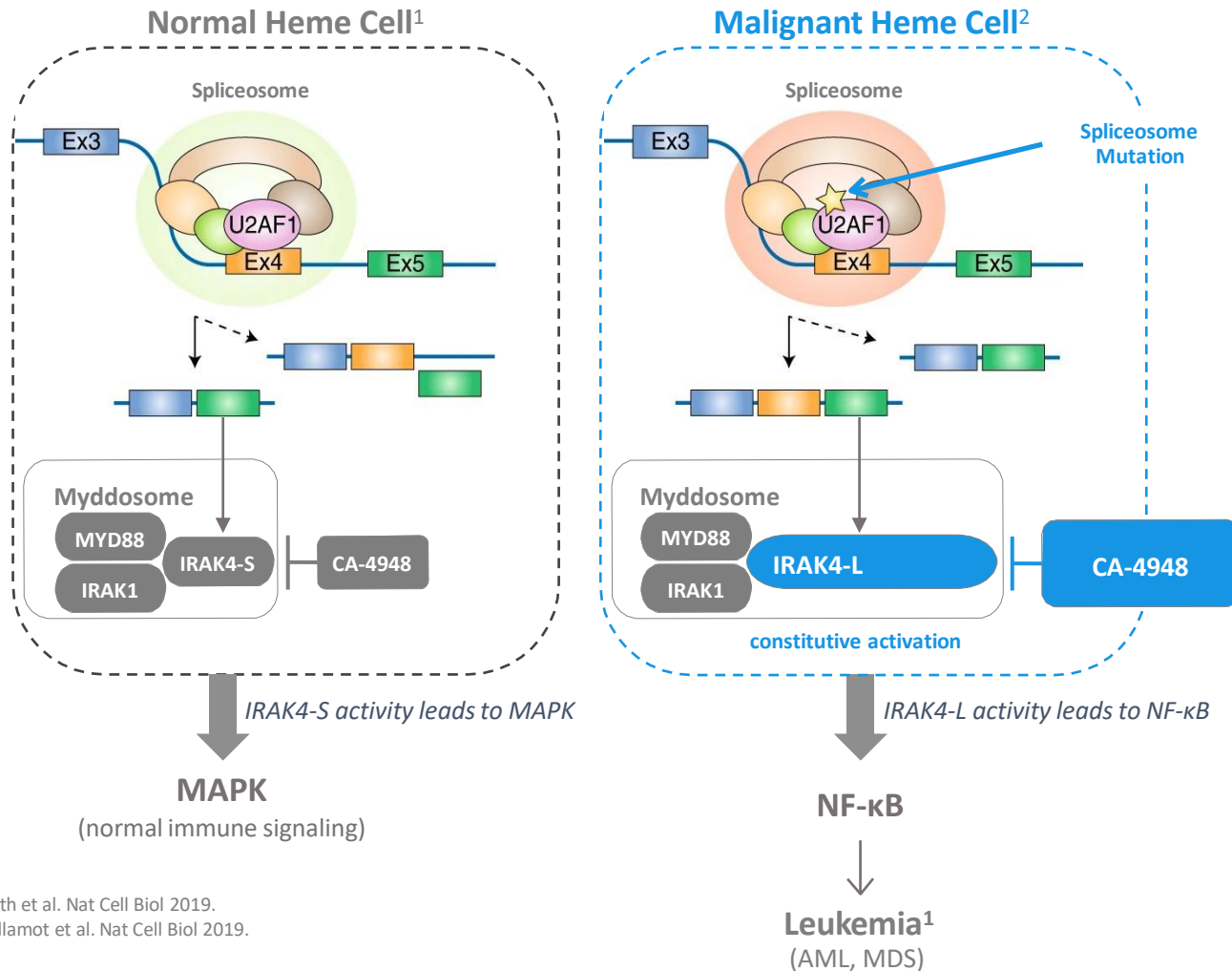
- CA-4948 addresses a novel target (IRAK4) and:
  - (1) demonstrates clear anti-cancer activity as an oral single agent
  - (2) is active in genetically-defined populations that can be identified and enrolled
  - (3) has the added potential benefit of also hitting FLT3
  
- CI-8993 addresses a novel target (VISTA) and:
  - (1) has successfully cleared dose level where Janssen observed dose-limiting toxicity (DLT)
  - (2) with pharmacodynamic effects suggesting multiple anti-cancer mechanisms are being activated

A circular inset image showing a microscopic view of a cell cluster, likely representing a tumor or a specific genetic population. The cells are blue and have a textured, irregular surface. The inset is centered on the slide and partially overlaps the text below.

## CA-4948: First-in-class IRAK4 Inhibitor

*Targeting Specific Genetic Populations in R/R AML and high-risk MDS (MDS)*

## Role of *IRAK4* in AML/MDS (normal vs. oncogenic activity)



*Specific genetic mutations (SF3B1, U2AF1) in the spliceosome drive overexpression of IRAK4-L*

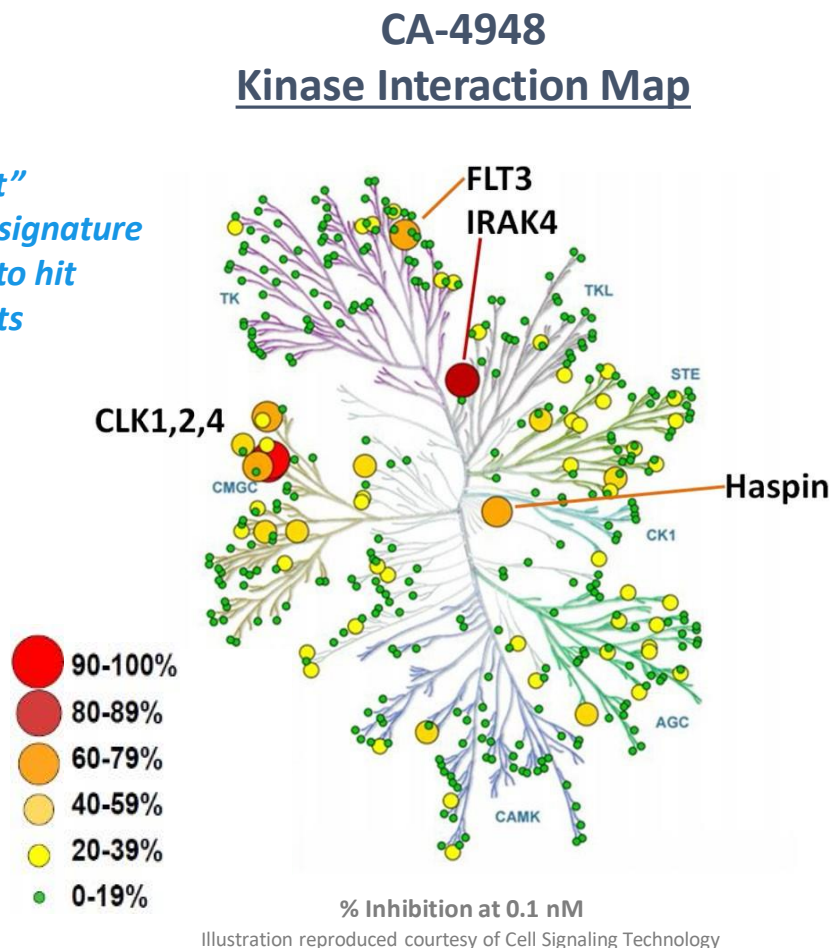
*IRAK4-L then causes constitutive activation of the myddosome, leading to overactivity of NF- $\kappa$ B*

1. Smith et al. Nat Cell Biol 2019.  
2. Guillamot et al. Nat Cell Biol 2019.

# CA-4948 is the Leading IRAK4 Inhibitor in Development for Cancer

*Targeted design offers added potential benefit of also hitting FLT3*

*CA-4948 “fingerprint” illustrates unique molecular signature specifically engineered to hit key oncogenic targets*



### CA-4948 Binding Affinity

Target	K <sub>d</sub> nM
IRAK1	12,000
IRAK2	>20,000
IRAK3	8,500
<b>IRAK4</b>	<b>23</b>
DYRK1A	25
<b>FLT3 wt</b>	<b>31</b>
<b>FLT3 (D835H)</b>	<b>5</b>
<b>FLT3 (D835V)</b>	<b>44</b>
<b>FLT3 (D835Y)</b>	<b>3</b>
<b>FLT3 (ITD)</b>	<b>8</b>
<b>FLT3 (K663Q)</b>	<b>47</b>
<b>FLT3 (N841I)</b>	<b>16</b>
Haspin (GSG2)	32
CLK1	10
CLK2	20
CLK3	>20,000
CLK4	14
TrkA	130

*CA-4948 binds specifically and with high affinity to IRAK4*

*Dual targeting of IRAK4 and FLT3 confers a potential efficacy advantage vs. other IRAK4 inhibitors and expands potential to additional genetic populations*

DiscoverX Kinase Panel  
(378 kinases screened)

A circular inset image showing a microscopic view of cells, likely cancer cells, with a blue and white color scheme. The cells are clustered and have a textured, irregular appearance.

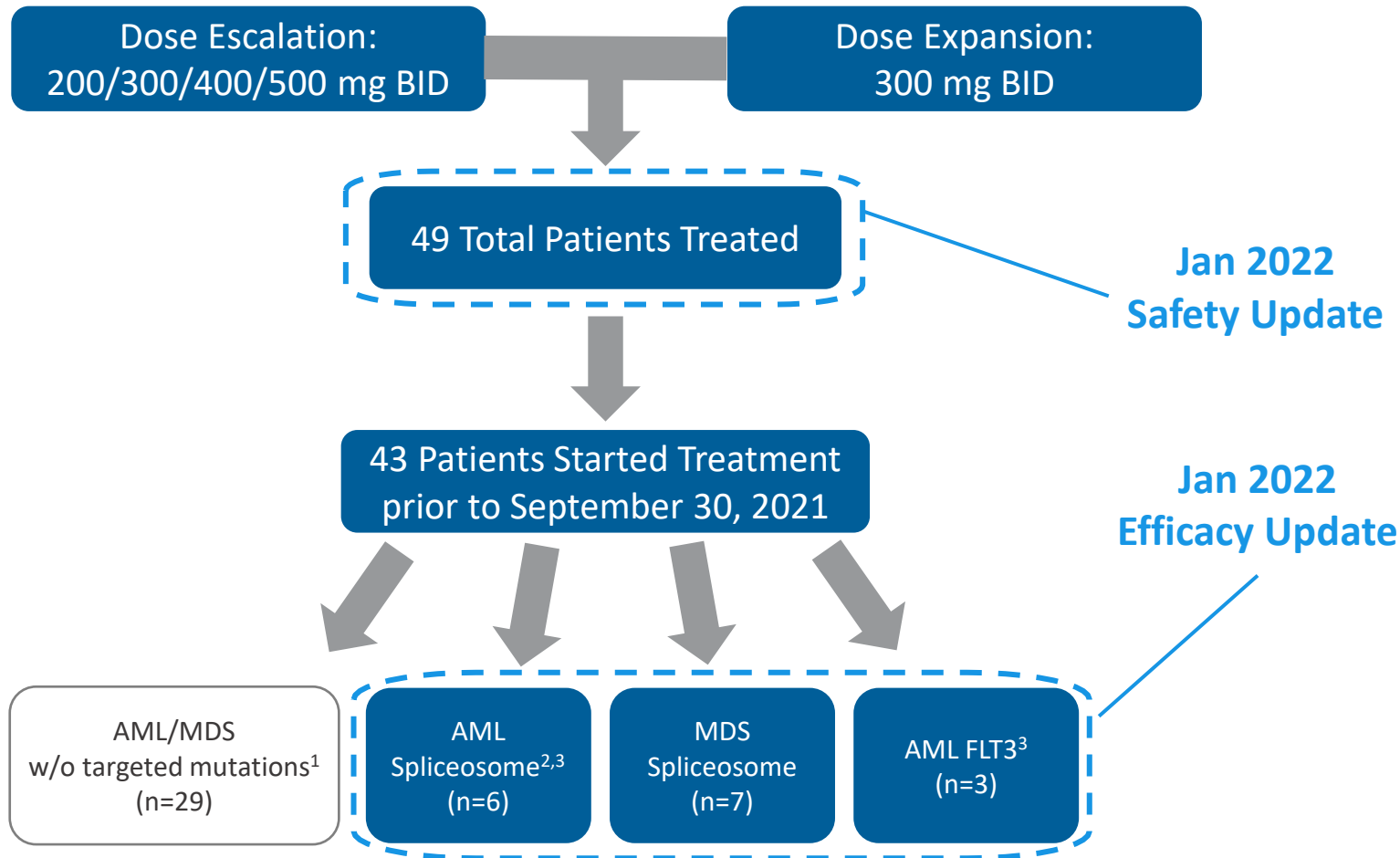
## Clinical Study Overview

*Phase 1/2 Study in AML and MDS*



# CA-4948 in AML and MDS

*Open-label, single arm, Phase 1/2 dose escalation and expansion study*



## Study Objectives

- 1°: Determine maximum tolerated dose  
Determine recommended Phase 2 dose
- 2°: Pharmacokinetic (PK) profile  
Preliminary anti-cancer activity

## Study Population

- Relapsed/Refractory AML or high-risk MDS
- ECOG performance Status of  $\leq 2$
- Age  $\geq 18$  years

## Dosing

- Oral, Twice Daily (BID) Dosing
- 28-day cycles

Data extraction date: Dec 16, 2021

1. These are non-targeted patients, due to lack of Spliceosome or FLT3 mutation, this population will be addressed in the combination therapy study; 2. One patient was not response evaluable because of discontinuation due to patient decision;

3. Two AML patients have both a spliceosome and FLT3 mutation and are included in both populations (there are 13 total evaluable patients with Spliceosome or FLT3 mutation)

# Well-Tolerated and Manageable AE Profile for CA-4948 in AML/MDS with No Cumulative Toxicities Observed

*No Grade 4 or 5 TRAEs reported; all AEs were manageable*

Recommended  
Phase 2 Dose

Grade 3+ Treatment-Related Adverse Event	200 mg BID (N = 3)		300 mg BID (N = 26)		400 mg BID (N = 17)		500 mg BID (N = 3)	
	n	(%)	n	(%)	n	(%)	n	(%)
Number of patients having grade 3+ treatment-related AEs	1	(33.3)	6	(23.1)	6	(35.3)	2	(66.7)
Alanine aminotransferase increased	1	(33.3)	0		0		0	
Blood creatine phosphokinase increased	0		1	(3.8)	0		0	
Dizziness	1	(33.3)	0		0		0	
Dyspnoea	0		0		1	(5.9)	0	
Enterobacter infection	0		0		1	(5.9)	0	
Fatigue	0		0		1	(5.9)	0	
Gastrointestinal haemorrhage	0		1	(3.8)	0		0	
Hypophosphataemia	0		1	(3.8)	0		0	
Hypotension	0		1	(3.8)	0		0	
Lipase increased	0		2	(7.7)	0		0	
Platelet count decreased	0		1	(3.8)	0		0	
Presyncope	0		0		1	(5.9)	0	
Rhabdomyolysis	0		1	(3.8)	2	(11.8)	1	(33.3)
Syncope	0		0		0		1	(33.3)

*Well-tolerated and manageable AE profile with no cumulative toxicities reported*

Data extraction date: Dec 16, 2021.

1. Data for the two patients that have escalated from 300 mg BID to 400 mg BID were included in the 400 mg BID dose group.

No dose-limiting myelosuppression reported, which is a life-threatening problem characteristic of many cancer treatments, making CA-4948 favorable for combinations

A circular inset image showing a microscopic view of a cell cluster, likely a tumor or a specific cell type, rendered in shades of blue and white. The cluster is dense and irregular in shape, with some smaller cells visible around the main mass.

## Clinical Data Overview: Three Targeted Patient Populations

*(1) AML Spliceosome, (2) MDS Spliceosome, (3) AML FLT3*

# Heavily Pretreated Patient Population

## Baseline Characteristics of AML/MDS Subsets

	AML Spliceosome <sup>1</sup> (n=6)	MDS Spliceosome (n=7)	AML FLT3 <sup>1</sup> (n=3)
Female n (%) : Male n (%)	0 (0) : 6 (100)	5 (71) : 2 (29)	0 (0) : 3 (100)
Age (yrs): median (range)	76 (60, 84)	74 (61, 80)	80 (78, 87)
ECOG: n 0/1/2	0/4/2	2/5/0	0/1/2
Median platelets (10 <sup>3</sup> /mm <sup>3</sup> ) (range)	28 (21, 80)	16 (7, 146)	21 (9, 23)
Median ANC (10 <sup>3</sup> /mm <sup>3</sup> ) (range)	0.23 (0, 3.3)	1.85 (0.15, 11.0)	0.05 (0, 0.11)
Median lines of prior therapy (range)	2.5 (1, 4)	2 (1, 4)	2 (1, 4)
Risk Category (ELN): Favorable / Intermediate / Adverse	0/3/3	NA	0/1/2
IPSS-R: Low / Intermediate / High / Very High	NA	0/0/2/5	NA
Prior therapy, n (%)	HMA <sup>2</sup>	6 (100)	7 (100)
	Chemotherapy <sup>3</sup>	3 (50)	0 (0)
	Venetoclax	4 (67)	1 (14)

Data extraction date: Dec 16, 2021.

1. Two AML patients have both a spliceosome and FLT3 mutation and are included in both populations (there are 13 total evaluable patients with Spliceosome or FLT3 mutation); 2. HMA includes azacitidine, decitabine, and guadecitabine; 3. Chemotherapy includes cytarabine.

Patient demographics indicate older population with poor prognosis;  
all patients received prior hypomethylating agent (HMA) therapy

# Encouraging Clinical Activity in R/R AML/MDS Patient Populations

*CA-4948 shows activity as a monotherapy in patients with Spliceosome and FLT3 mutations*

Best Response	Efficacy
<b>Population #1: AML Spliceosome Patients<sup>1</sup></b>	
<b>CR/CRh Rate</b>	<b>2/5 (40%)</b>
CR	1/5 (20%)
CRh	1/5 (20%)
<b>Population #2: MDS Spliceosome Patients</b>	
<b>Objective Response Rate (ORR)</b>	<b>4/7 (57%)</b>
CR	0/7 (0%)
mCR	4/7 (57%)
<b>Population #3: AML FLT3 Patients<sup>1</sup></b>	
<b>CR/CRh Rate</b>	<b>1/3 (33%)</b>
CR	1/3 (33%)
CRh	0/3 (0%)

*The CR and CRh patients are both MRD-negative*

*1 mCR patient went to Stem Cell Transplant (SCT)*

*FLT3 mutation eradicated in 2 out of 3 patients*

Data extraction date: Dec 16, 2021.

1. Two AML patients have both a spliceosome and FLT3 mutation and are included in both populations (there are 13 total evaluable patients with Spliceosome or FLT3 mutation).

Response criteria per 2017 ELN Criteria for AML and Modified IWG Criteria for MDS:

- CR = Complete Remission
- CRh = CR with partial hematologic recovery
- mCR = marrow CR

A circular inset image showing a microscopic view of cells, likely leukemia cells, with a blue and white color scheme. The cells are clustered and have a textured, irregular appearance.

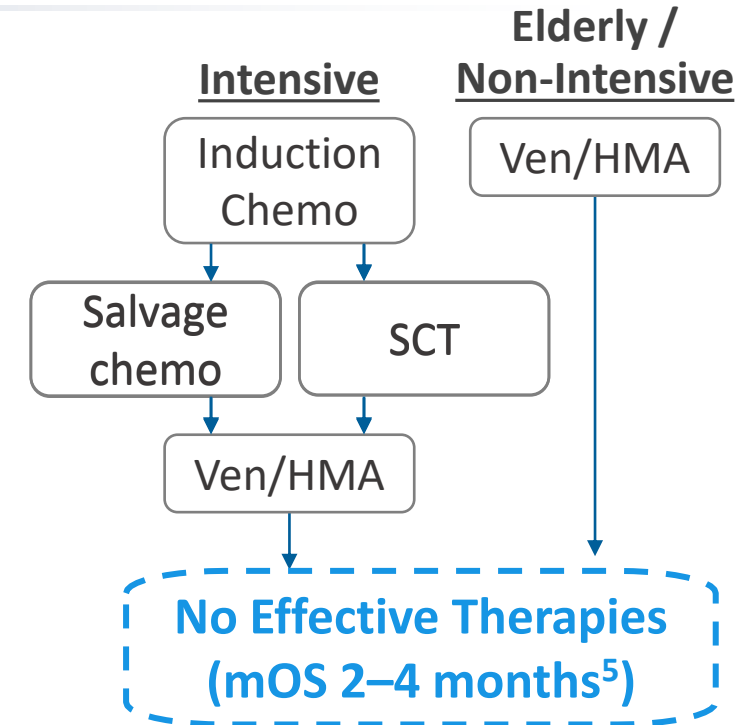
## Clinical Data: R/R AML Patients with Spliceosome Mutation

*Patient Population #1*

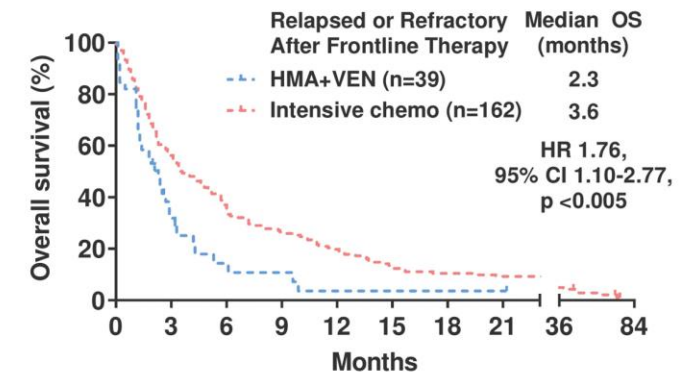
# Unmet Need for R/R AML Patients with Spliceosome Mutation

*No approved targeted therapies and no unified standard of care for these patients*

- Spliceosome mutations occur in ~10% of AML patients<sup>1</sup>
  - These mutations create a chronic inflammatory marrow microenvironment<sup>2</sup>, which impairs hematologic recovery<sup>3</sup>
  - Ability to achieve CR is impaired in patients with U2AF1/SF3B1 mutation<sup>4</sup>
- There are no effective therapies for patients R/R to Ven/HMA: no unified standard of care



**Opportunity to meaningfully improve outcomes in R/R AML patients with spliceosome mutations**



1. DiNardo et al, Hematology Am Soc 2016; 2. Smith et al. Nat Cell Biol 2019; 3. Trowbridge JEM 2021. Ochi Cancers 2021. Hou, Oncotarget 2016; 4. Hou, Oncotarget 2016; 5. Maiti et al. Haemtologica 2021

# Initial CA-4948 Data Compare Favorably to Existing Therapies

*Potential to meaningfully improve outcomes in R/R AML patients with spliceosome mutation*

## Most Commonly Used in R/R AML with Wild Type FLT3/IDH<sup>1</sup>

CA-4948	Decitabine <sup>2,3</sup>	Azacitidine <sup>2,4</sup>	LoDAC <sup>5</sup>	Gemtuzumab Ozogamicin <sup>2,6</sup>
<i>IRAK4 Inhibitor</i>	<i>HMA</i>	<i>HMA</i>	<i>Chemotherapy</i>	<i>Monoclonal Anti-CD33 Antibody (ADC)</i>
<ul style="list-style-type: none"> <li>• 40% CR/CRh rate (2 of 5 patients)</li> <li>• No dose-limiting myelosuppression</li> <li>• Oral Administration</li> </ul>	<ul style="list-style-type: none"> <li>• ~16% CR rate</li> <li>• Myelosuppressive</li> <li>• IV Administration</li> </ul>	<ul style="list-style-type: none"> <li>• 17% CR/CRi rate</li> <li>• Myelosuppressive</li> <li>• IV or SC Administration</li> </ul>	<ul style="list-style-type: none"> <li>• ~13% ORR</li> <li>• Myelosuppressive and Black Box Warning</li> <li>• IV Administration</li> </ul>	<ul style="list-style-type: none"> <li>• ~26% CR</li> <li>• Myelosuppressive and Black Box Warning</li> <li>• IV Administration</li> </ul>

**>6 months on CA-4948 for patients with CR/CRh**

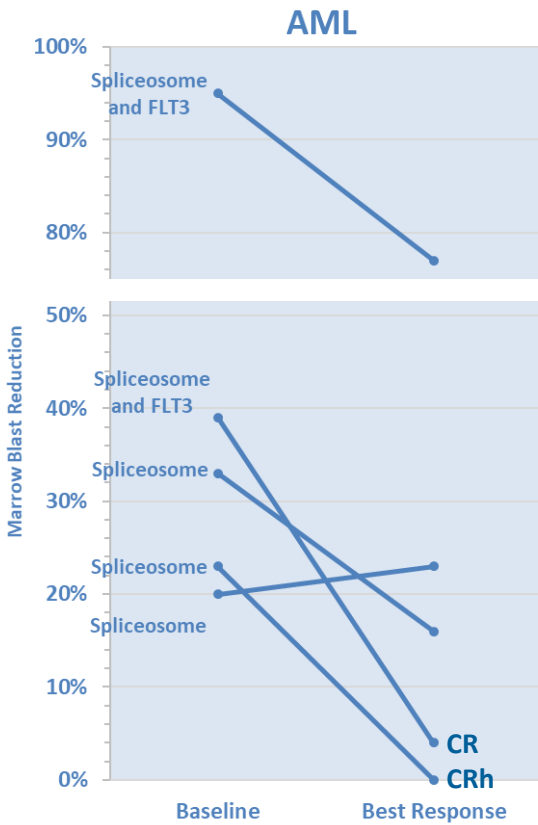
1. CancerMPact Treatment Architecture U.S. AML, Cerner Enviza, www.cancermpact.com, accessed January 3, 2022. Excludes Investigational Therapies; 2. Product Package Insert; 3. Ritchie et al, Leuk Lymphoma 2013; 4. Itzykson et al, Leuk Res 2014; 5. Frikha et al, Bulletin du Cancer 1996; 6. Gemtuzumab ozogamicin is only approved for patients with newly-diagnosed CD33-positive AML or R/R CD33-positive AML

**Initial CA-4948 data compare favorably vs. historical responses with mainstay treatments for R/R AML patients with wild type FLT3/IDH**



# Encouraging Clinical Activity in R/R AML Patients with Spliceosome Mutation

*Achieved 40% CR/CRh rate, with treatment duration >6 months to date in responding patients*



Dx	Dose (BID)	Risk Category (ELN)	Baseline Molecular Mutations	Prior Therapies		Duration on CA-4948 (mos)	Blasts Baseline	Blasts Best Response	% Change
				# Lines	Therapy				
sAML	300 mg	Intermediate	RUNX1, WT1, SF3B1	1	decitabine	7	23	0	-100% (CRh)
sAML	300 mg	Intermediate	U2AF1, FLT3, BCOR, WT1	1	decitabine/venetoclax	6+	39	4	-90% (CR)
AML	300 mg	Intermediate	U2AF1, NRAS	4	cytarabine/idarubicin, decitabine/venetoclax, fludarabine/cyclophosphamide/methotrexate, azacitidine	2.5	33	16	-52%
AML	300 mg	Adverse	FLT3, SF3B1, NRAS, PTPN11, RAD21, RUNX1, TET2, GATA, STAT3	4	cytarabine/daunorubicin, decitabine, decitabine/venetoclax, gilteritinib	2.6	95	77	-19%
sAML	400 mg	Adverse	SF3B1, DNMT3A, P53	1	azacitidine/venetoclax	2	20	23	15%

Data extraction date: Dec 16, 2021; "+" in Duration of Treatment indicates the patient remains on treatment as of the date of data extraction.

1. Two AML patients have both a spliceosome and FLT3 mutation and are included in both populations (there are 13 total evaluable patients with Spliceosome or FLT3 mutation).

**CA-4948 achieved CR/CRh responses, despite transformed AML being historically highly resistant to treatment**



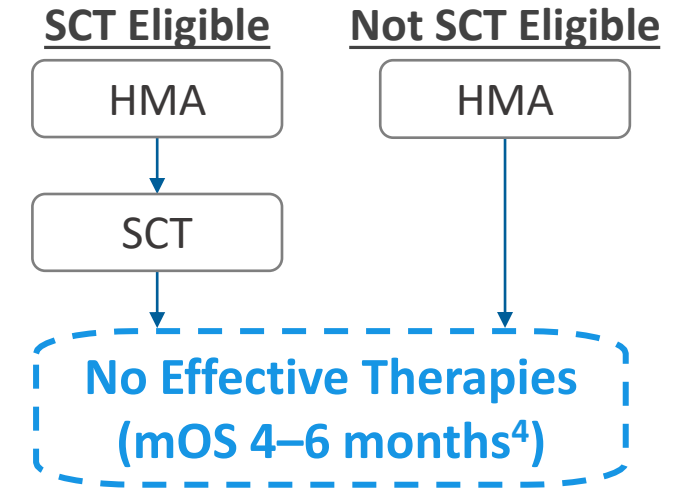
Clinical Data: R/R MDS Patients with Spliceosome Mutation

*Patient Population #2*

# Spliceosome Mutations Common in MDS

*Large unmet need for R/R MDS patients with spliceosome mutation*

- Spliceosome mutations (U2AF1/SF3B1) are the most prominent mutations in MDS, accounting for ~30% of all MDS patients<sup>1</sup>
  - These mutations create a chronic inflammatory marrow microenvironment<sup>2</sup>, which impairs hematologic recovery<sup>3</sup>
- There are no effective therapies for patients R/R to HMA: chemotherapy is standard of care



Current standard of care offers limited therapeutic benefit to patients

# Clear Unmet Need in Relapsed/Refractory MDS

*Current standard of care offers little therapeutic benefit to patients*

## Most Commonly Used Therapies in R/R MDS<sup>1</sup>

CA-4948	Chemotherapy <sup>2</sup>	Decitabine <sup>3</sup>	Azacitidine <sup>3</sup>
<i>IRAK4 Inhibitor</i>	<i>Chemotherapy</i>	<i>HMA</i>	<i>HMA</i>
<ul style="list-style-type: none"> <li>• 57% mCR rate (4 of 7 patients, incl. 1 that went to SCT)</li> <li>• No dose-limiting myelosuppression</li> <li>• Oral Administration</li> </ul>	<ul style="list-style-type: none"> <li>• ~8% ORR</li> <li>• Myelosuppressive and Black Box Warning</li> <li>• IV Administration</li> </ul>	<ul style="list-style-type: none"> <li>• 2<sup>nd</sup> line response data unavailable</li> <li>• Myelosuppressive</li> <li>• IV Administration</li> </ul>	<ul style="list-style-type: none"> <li>• 2<sup>nd</sup> line response data unavailable</li> <li>• Myelosuppressive</li> <li>• IV or SC Administration</li> </ul>

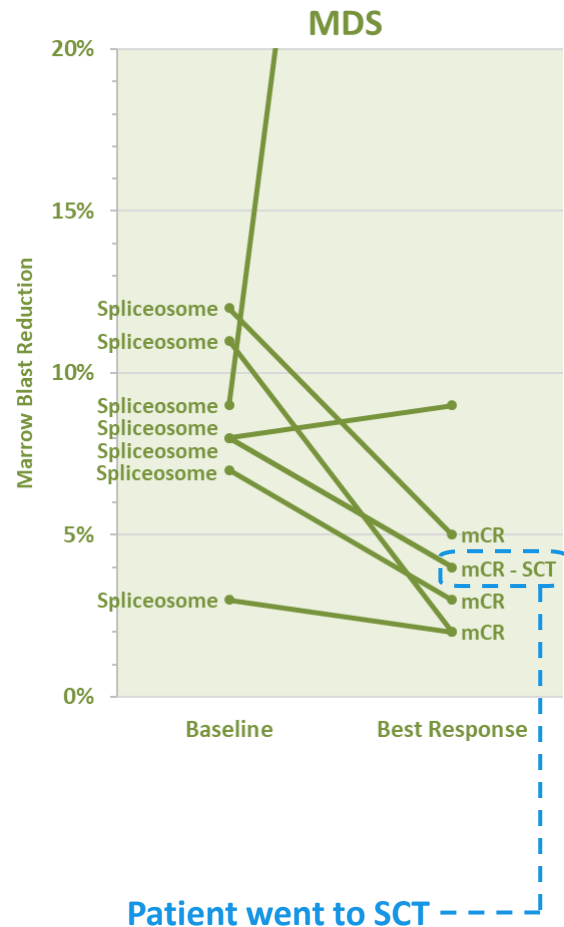
**In MDS post-HMA mOS is 4–6 months<sup>4</sup>; clear unmet need for these patients**

1. CancerMPact Treatment Architecture U.S. AML, Cerner Enviza, www.cancermpact.com, accessed January 3, 2022. Excludes Investigational Therapies; 2. Pr ebet et al, JCO 2011.; 3. Product Package Insert.; 4. Jabbour et al Cancer 2010; Pr ebet et al., JCO 2011; Duong et al, Clin Lymphoma Myeloma Leuk, 2013.

**Initial CA-4948 data compared favorably vs. historical responses with the mainstay treatment for R/R MDS patients**

# Encouraging Clinical Activity in R/R MDS Patients with Spliceosome Mutation

*Marrow blast reduction achieved in 5 of 7 patients, including 4 marrow CRs*



Dx	Dose (BID)	IPSS-R	Baseline Molecular Mutations	Prior Therapies		Duration on CA-4948 (mos)	Blasts Baseline	Blasts Best Response	% Change
				# Lines	Therapy				
MDS	200 mg	Very High Risk	U2AF1 ,ASXL1, NF1, PHF6, GFI1, KDM6A, TET2	1	azacitidine	5.7	11	2	-82% (mCR)
MDS	300 mg	Very High Risk	U2AF1, DNMT3A, BCOR, STAG2, BCORL1, ETV6, SETBP1	1	magrolimab/azacitidine	3.3+	12	5	-58% (mCR)
MDS	400 mg	Very High Risk	SF3B1, RUNX1, NFE2	2	lenalidomide, guadecitabine	4.3	7	3	-57% (mCR)
MDS	300 mg	High Risk	SF3B1, DNMT3A, ASXL1, TET2, EZH2	2	azacitidine, canakinumab	0.9 <i>(went to SCT)</i>	8	4	-50% (mCR)
MDS	300 mg	High Risk	U2AF1, ASXL1	4	lenalidomide, azacitidine, cyclosporine, decitabine	5.3+	3	2	-33%
MDS	300 mg	Very High Risk	SF3B1, ASXL1, NF1, SH2B3, RUNX1, PHF6, CBL, GFI1, EZH2	3	ipilimumab/azacitidine, quizartinib/azacitidine, azacitidine/venetoclax/pevonedistat	1.6	8	9	13%
MDS	400 mg	Very High Risk	U2AF1, ASXL1, BCOR, DNMTA, GATA2, SETBP1	1	azacitidine	1.2	9	62	>100%

Data extraction date: Dec 16, 2021; "+" in Duration of Treatment indicates the patient remains on treatment as of the date of data extraction.

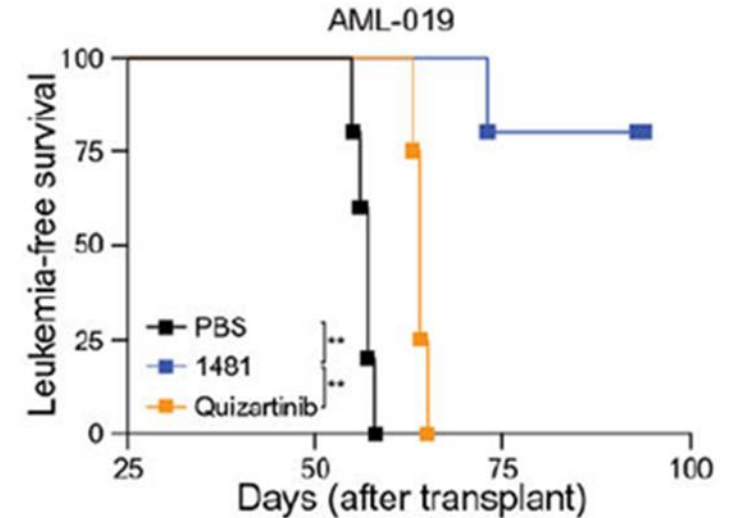
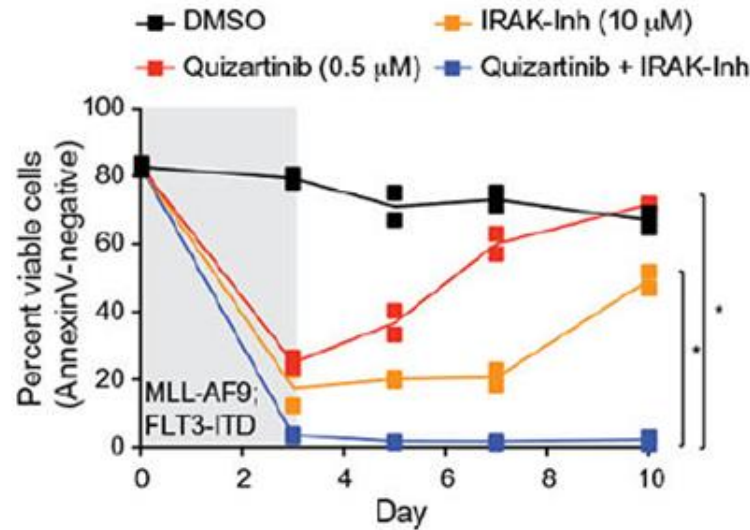
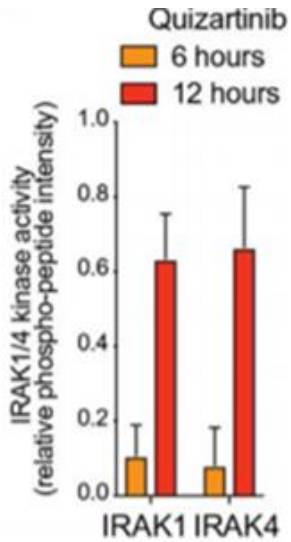
**Consistent tumor burden reduction in targeted population with limited options**

A circular inset image showing a microscopic view of cells, likely leukemia cells, with a blue and white color scheme. The cells are clustered and have a textured, irregular appearance.

Clinical Data: R/R AML Patients with FLT3 Mutation  
*Patient Population #3*

# IRAK4 Signaling Drives Resistance to FLT3 Inhibitors

*IRAK4 inhibition is synergistic with, and prevents adaptive resistance to, FLT3 inhibition*



- IRAK4 activity increases after quizartinib treatment of MLL-AF9 FLT3-ITD cells
- IRAK4 activity also shown to increase in patients during gilteritinib treatment

- IRAK and FLT3 inhibition is synergistically cytotoxic

*Viability of MLL-AF9;FLT3-ITD cells treated for 3 days with DMSO (vehicle control), quizartinib (0.5 μM), IRAK-Inh (10 μM), or quizartinib and IRAK-Inh*

- Mice die if treated with quizartinib, but survive if treated with IRAK/FLT3 inhibitor (1481)

*Leukemia-free survival of NRGs mice xenografted with AML-019*

# CA-4948 May Address Unmet Need in R/R AML Patients with FLT3 Mutation

*No approved therapies for patients R/R to FLT3 inhibitors*

## Most Commonly Used Therapies in R/R AML Patients with FLT3 Mutation<sup>1</sup>

CA-4948	Gilteritinib <sup>2,3</sup>	Azacitidine <sup>2</sup>	Decitabine <sup>2</sup>	Gemtuzumab Ozogamicin <sup>2,4</sup>
<i>IRAK4 Inhibitor</i>	<i>FLT3 Inhibitor</i>	<i>HMA</i>	<i>HMA</i>	<i>Monoclonal Anti-CD33 Antibody (ADC)</i>
<ul style="list-style-type: none"> <li>• 33% CR (1 of 3 patients)</li> <li>• No dose-limiting myelosuppression</li> <li>• Oral Administration</li> </ul>	<ul style="list-style-type: none"> <li>• ~12% CR</li> <li>• No dose-limiting myelosuppression</li> <li>• Oral Administration</li> </ul>	<ul style="list-style-type: none"> <li>• 2<sup>nd</sup> line response data unavailable</li> <li>• Myelosuppressive</li> <li>• IV or SC Administration</li> </ul>	<ul style="list-style-type: none"> <li>• 2<sup>nd</sup> line response data unavailable</li> <li>• Myelosuppressive</li> <li>• IV Administration</li> </ul>	<ul style="list-style-type: none"> <li>• ~26% CR</li> <li>• Myelosuppressive and Black Box Warning</li> <li>• IV Administration</li> </ul>

~30% of AML patients have FLT3 mutation<sup>5</sup>

Dual inhibition of IRAK4 and FLT3 may lead to increased efficacy, as signaling through IRAK4 drives resistance to FLT3 inhibitors<sup>6</sup>

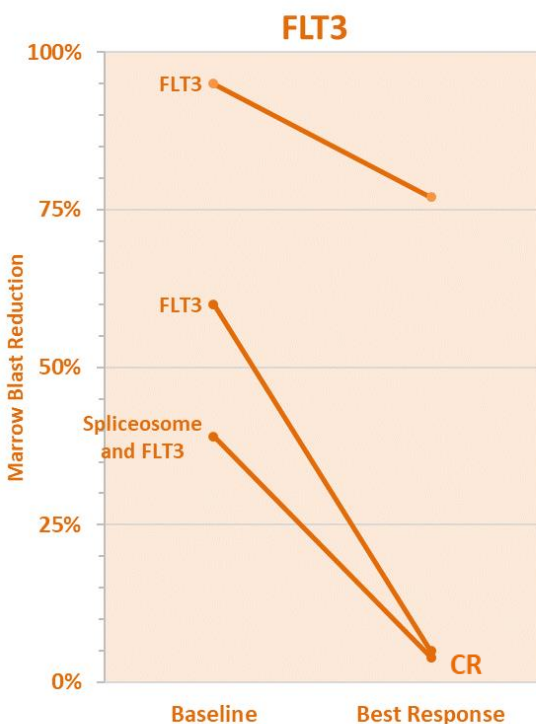
1. CancerMPact Treatment Architecture U.S. AML, Cerner Enviza, www.cancermpact.com, accessed January 3, 2022. Excludes Investigational Therapies; 2. Product Package Insert; 3. Perl et al NEJM 2019; 4. Gemtuzumab ozogamicin is only approved for patients with CD33-positive AML; 5. Saygin, et al. J Hematol Oncol. 2017; 6. Melgar, Sci Transl Med. 2019

**IRAK4/FLT3 inhibition may improve efficacy in R/R AML patients with FLT3 mutation<sup>5</sup>**



# Encouraging Clinical Activity in R/R AML Patients with FLT3 Mutation

*Achieving disease modification in heavily pretreated patients with CA-4948 monotherapy*



Dx	Dose (BID)	Risk Category (ELN)	Baseline Molecular Mutations	Prior Therapies		Duration on CA-4948 (mos)	Blasts Baseline	Blasts Best Response	% Change
				# Lines	Therapy				
AML	400 mg	Adverse	FLT3 ( <i>eradicated at C3D1</i> ), ASXL1, BCOR, CEBPA ( <i>eradicated at C3D1</i> ), CSF3R, EZH2, NRAS, RUNX1 (X3), STAG2, TET2(X2,1) ( <i>eradicated at C3D1</i> )	2	decitabine/venetoclax, gilteritinib ( <i>refractory to gilteritinib</i> )	5.1	60	5	-92%
sAML	300 mg	Intermediate	FLT3 ( <i>eradicated at C4D1</i> ), BCOR ( <i>eradicated at C4D1</i> ), U2AF1 ( <i>decreased to 1.3 VAF at C4D1</i> ), WT1 ( <i>eradicated at C4D1</i> )	1	decitabine/venetoclax	6.2+	39	4	-90% (CR)
AML	300 mg	Adverse	FLT3, SF3B1, NRAS, PTPN11, RAD21, RUNX1, TET2, GATA, STAT3	4	cytarabine/daunorubicin, decitabine/PCM-075, decitabine/venetoclax, gilteritinib	2.6	95	77	-19%

Data extraction date: Dec 16, 2021; "+" in Duration of Treatment indicates the patient remains on treatment as of the date of data extraction.  
 1. Two AML patients have both a spliceosome and FLT3 mutation and are included in both populations (there are 13 total evaluable patients with Spliceosome or FLT3 mutation).

**Significant marrow blast reduction and FLT3 mutation eradicated in 2 out of 3 patients**

A circular inset image showing a microscopic view of a cell cluster, likely a tumor spheroid, with a blue and white color scheme. The cluster is composed of numerous small, interconnected cells, with some areas appearing more dense and others more porous. The image is centered on the slide and partially obscured by a white horizontal bar.

## Summary

*CA-4948 in Three Targeted Patient Populations*

- Encouraging clinical activity in patients with R/R disease, all of whom had prior HMA treatment
  - 4 out of 5 patients with spliceosome-mutated AML achieved blast reduction
    - 2 patients achieved CR/CRh with significant hematologic improvement, including 1 full CR
  - 5 out of 7 patients with spliceosome-mutated MDS achieved blast reduction
    - 4 patients achieved marrow CR, 1 of whom proceeded to Stem Cell Transplant
  - All 3 patients with FLT3-mutated AML achieved blast reduction
    - 2 patients achieved eradication of FLT3 mutation, including 1 full CR
- Manageable Toxicity/Safety Profile
  - Oral drug with a well-tolerated and manageable safety profile
  - Supports further development, both as a single agent and in combination therapy

# CA-4948 Has Potential to Address Clear Unmet Need in AML and MDS

## *First-in-class IRAK4 inhibitor targets specific genetic populations in AML and MDS*

CA-4948 addresses a novel target (IRAK4) and:

- (1) demonstrates clear anti-cancer activity as an oral single agent
  - (2) is active in genetically-defined populations that can be identified and enrolled
  - (3) has the added potential benefit of also hitting FLT3
- Well-tolerated and manageable safety profile may provide advantage to existing standard of care therapies as a single agent, and also suggests CA-4948 may be a favorable candidate for addition to combination therapy regimens
  - Dual targeting of IRAK4 and FLT3 may prevent adaptive resistance to current FLT3 inhibitors<sup>1</sup>

### Next Steps in Expansion

- *Monotherapy: Spliceosome mutation*
- *Monotherapy: FLT3 mutation*
- *Combination: CA-4948 + azacitidine*
- *Combination: CA-4948 + venetoclax*

***Plan to discuss potential for a rapid  
registrational path with FDA in 1H 2022***

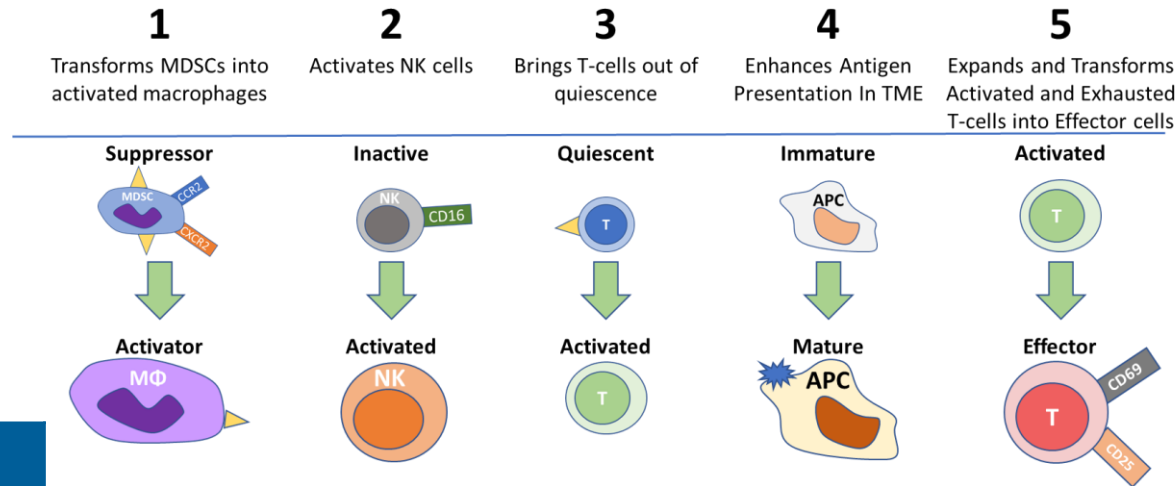
A large, semi-transparent blue 3D molecular model of a protein is centered on the slide. It is partially obscured by a white horizontal bar that contains the text. The model shows a complex, multi-domain structure with various surface features.

## CI-8993: First-in-class VISTA Antagonist

*Novel Immune Checkpoint Inhibitor for Solid Tumors*

# Anti-cancer Mechanisms of Checkpoint Inhibitors

*Role of VISTA may go beyond other checkpoint inhibitors*



***We believe VISTA inhibition has potential for broad application in many tumor types in monotherapy and in combination with existing checkpoint inhibitors***

Target	1	2	3	4	5
VISTA (CI-8993)	✓	✓	✓	✓	✓
PD-1 (Pembro, Nivo, etc.)	✓	✗	✗	✗	✓
PD-L1 (Atezo, Durva, etc.)	✗	✗	✗	✗	✓
CTLA-4 (Ipi)	✗	✗	✗	✗	✓
TIM3	✓	✗	✗	✗	✓
LAG3	✗	✗	✗	✗	✓
OX40	✗	✗	✗	✗	✓
TIGIT	✗	✗	✗	✗	✓

Checkpoint Inhibitors Approved in Multiple Malignancies:

- Melanoma
- Lung Carcinoma
- Renal Cell Carcinoma
- Head & Neck Squamous Cell Carcinoma
- Lymphoma
- Hepatocellular Carcinoma
- Merkel Cell Carcinoma
- Gastric/Gastroesophageal Adenocarcinoma
- Cervical Carcinoma
- Cutaneous Squamous Cell Carcinoma
- Breast Carcinoma
- Esophageal Carcinoma
- Uterine Carcinoma
- Urothelial Carcinoma
- Genomic Alterations (e.g., MSI-high)

Sources: Curis & ImmuNext internal data, Curis 2021 VISTA Symposium.

# Incorporated Learnings from CI-8993 Prior Clinical Study

## *Pharmacodynamic activity (cytokine release) observed in initial clinical study*

CI-8993 is the first anti-VISTA monoclonal antibody (IgG1κ) to be studied in clinical trials

- Janssen initiated a Ph1 study in 2016 and enrolled 12 patients<sup>1</sup>
  - Transient Cytokine Release Syndrome (CRS) observed in several patients at 0.15mg/kg
  - Transient grade 3 CRS-associated encephalopathy observed at 0.3mg/kg, after which Janssen halted the study

### **CI-8993 Protocol Designed to Manage Expected CRS**

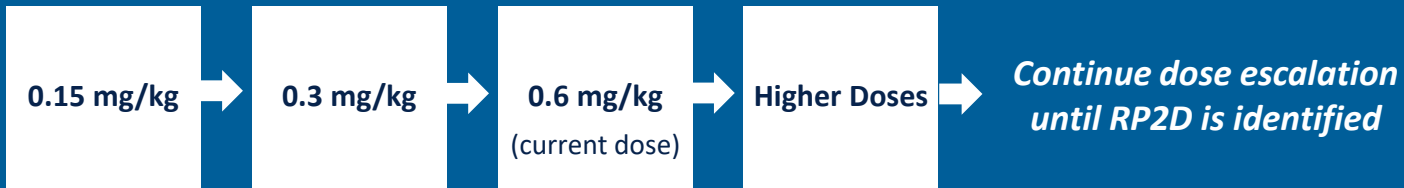
- CRS is likely an on-target effect; indicates drug is hitting the target and inducing immune response
- NCCN guidelines were issued in 2018; oncology community now familiar with managing CRS
- Desensitizing step-dose of CI-8993, and pre/post-infusion medication, administered to mitigate CRS

1. ClinicalTrials.gov, Trial #NCT02671955

# CI-8993 Clinical Plan: Phase 1 Dose Escalation Study

*On-going clinical study to determine safety*

## Phase 1 Dose Escalation Study Design



### Patient Population

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

### Treatment

- Bi-weekly dosing
- Plan to mitigate potential toxicities by co-medication and step dosing (desensitization)

### Objectives

- Safety, PK/PD, tolerability during dose escalation
- Anti-cancer activity during expansion



# CI-8993 Has Demonstrated Favorable Safety Profile

*Successfully managed expected CRS at all levels dosed to date*

All Grades Treatment-Related Adverse Events Occurring in 2+ Patients	0.15 mg/kg (N = 7)		0.3 mg/kg (N = 5)	
	n	(%)	n	(%)
Number of patients having any grade treatment-related AEs	4	(57.1)	4	(80.0)
Headache	3	(42.9)	1	(20.0)
Chills	2	(28.6)	1	(20.0)
Alanine aminotransferase increased	1	(14.3)	1	(20.0)
Fatigue	2	(28.6)	0	
Hypotension	0		2	(40.0)

Data extraction date: Dec 11, 2021.

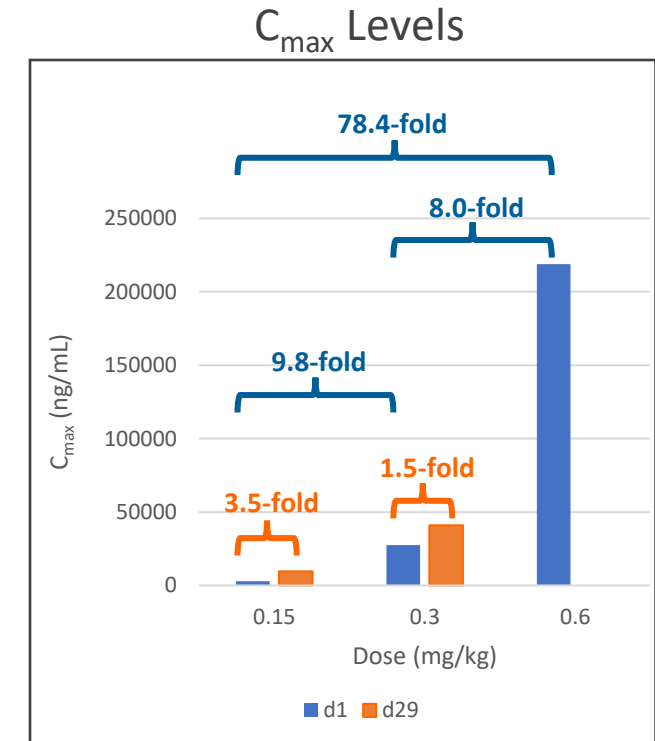
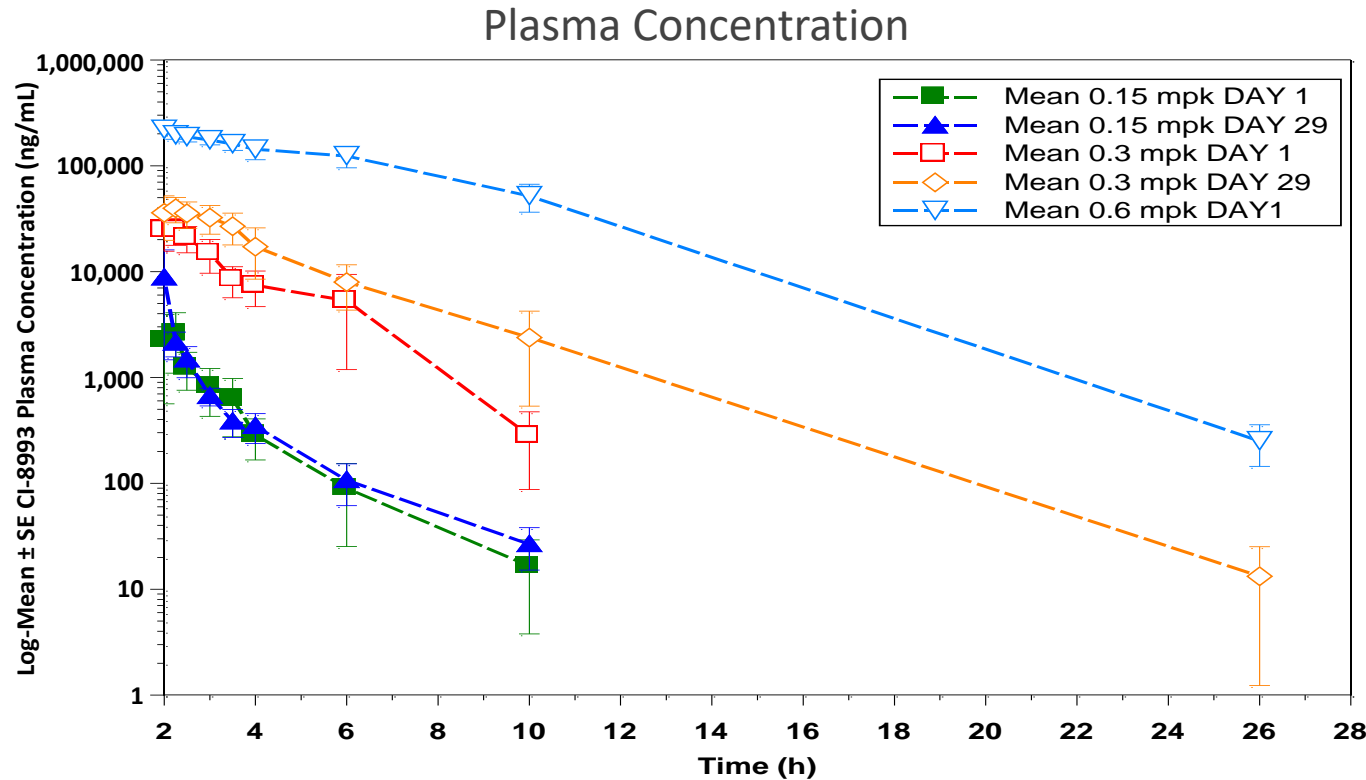
One additional patient experienced grade 2 treatment-related AE after receiving step dose and chose not to proceed to full dose.

Grade 3+ Treatment-Related Adverse Events	0.15 mg/kg (N = 7)		0.3 mg/kg (N = 5)	
	n	(%)	n	(%)
Number of patients having grade 3+ treatment-related AEs	0		1	(20.0)
Leukopenia	0		1	(20.0)

CI-8993 has successfully cleared dose level where Janssen observed DLT

# CI-8993 Has Demonstrated Favorable PK Profile

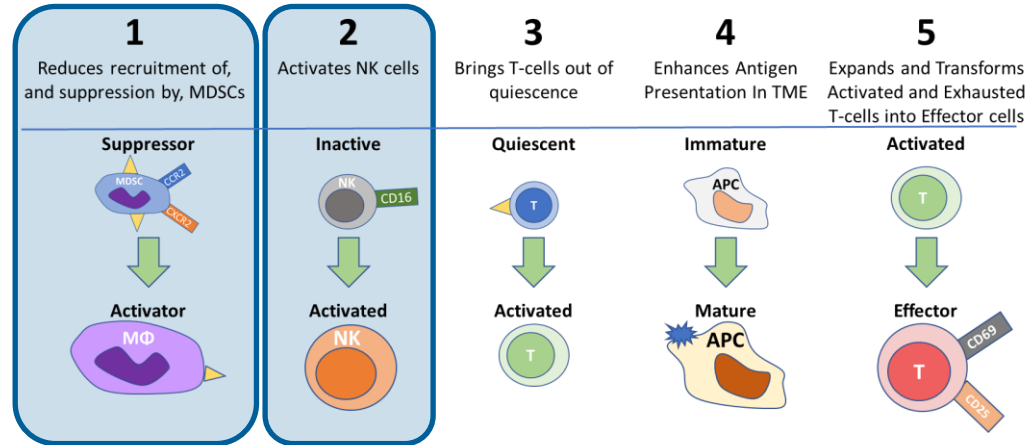
*CI-8993 mean plasma concentration vs. time profile following IV administration at full dose*



Saturation kinetics in C<sub>max</sub> data (“sink effect”) suggest potential for broad bioavailability at higher dose levels

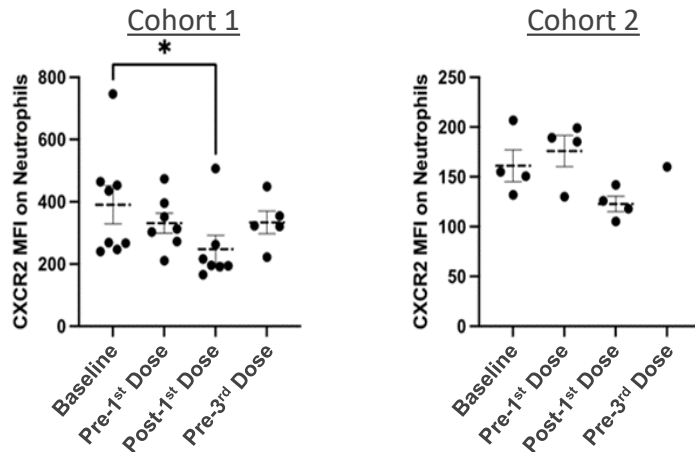
# Pharmacodynamic Effects of CI-8993 in Patients

*CI-8993 affects multiple anticancer mechanisms supporting VISTA potential*



## 1 Decreased recruitment of MDSCs *Decreased CXCR2 on granulocytes*

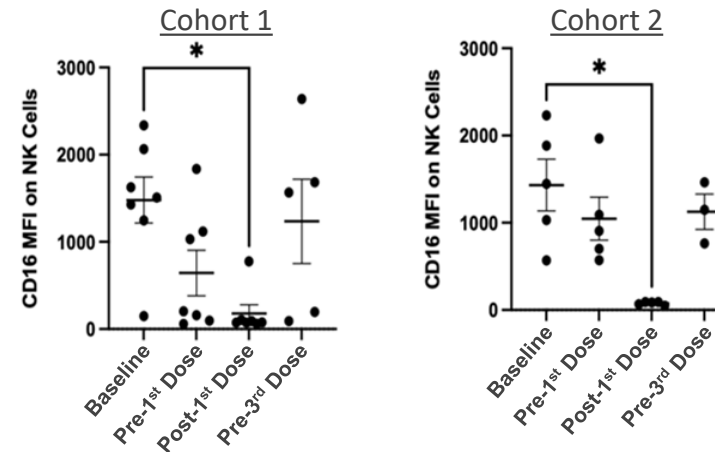
*CI-8993 reduces MDSCs (↓CXCR2 and ↓CCR2); MDSCs suppress anti-tumor immunity and impair efficacy of other checkpoint inhibitors*



*Similar finding for CCR2 on monocytes*

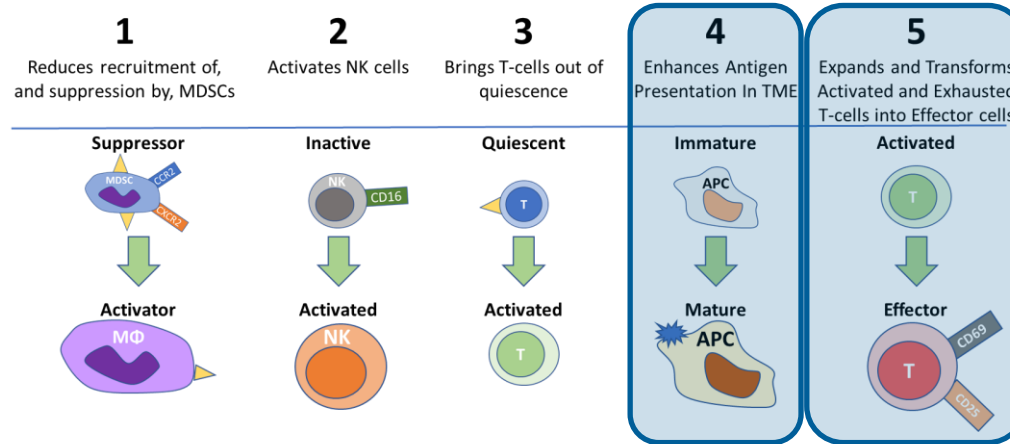
## 2 NK Cell Activation *Decreased CD16 on NK cells*

*CI-8993 activates NK cells (↓CD16 signifies NK activation); activated NK cells exert an important anti-tumor function via the innate immune system*



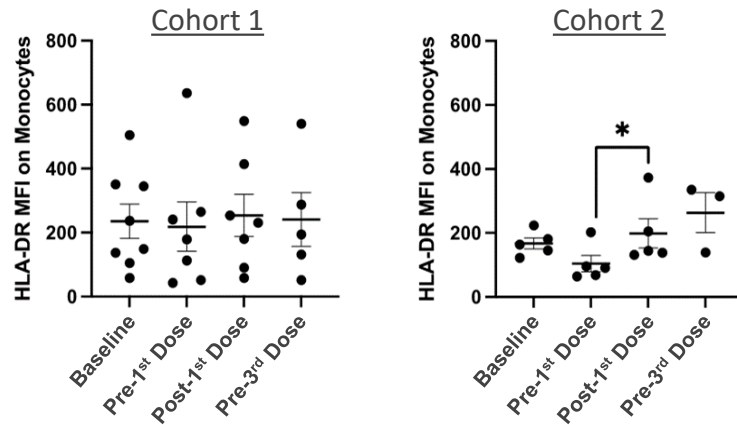
# Pharmacodynamic Effects of CI-8993 in Patients

*CI-8993 affects multiple anticancer mechanisms supporting VISTA potential*



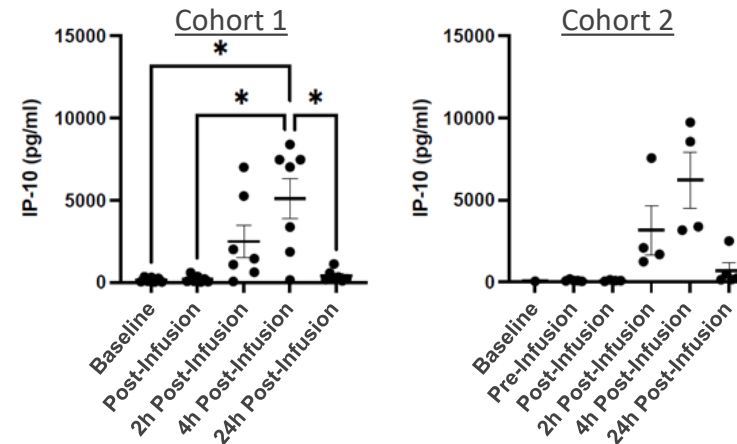
## 4 Enhanced Antigen Presentation *Increased HLA-DR on Monocytes*

*CI-8993 enhances antigen presentation ( $\uparrow$ HLA-DR); antigen presentation allows the immune system to recognize the tumor and attack it*



## 5 Release of T-Cell Activating Factors *Increased Secretion of IP10*

*CI-8993 increases T-cell factors ( $\uparrow$ IP10 and  $\uparrow$ MIP1 $\alpha$ ); these stimulate T-cell expansion and transformation into effector T-cells*



*Similar finding for MIP1 $\alpha$*

# CI-8993 Cleared Initial Safety Hurdle

*First-in-class CI-8993 has potential for broad applicability in immune checkpoint therapy*

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- Encouraging initial safety data appears to demonstrate effectiveness of procedures implemented to manage expected CRS
- Pharmacokinetic profile of CI-8993 exhibits saturation kinetics, suggesting potential to overcome “sink effect”
- Pharmacodynamic effects of CI-8993 in patients suggest multiple anti-cancer mechanisms may be activated

## Next Steps in Dose Escalation

- *Continue dose-escalation for signs of anti-cancer activity and determination of RP2D*

A circular inset image showing a microscopic view of a cell. The cell is rendered in shades of blue and white, with a textured, porous appearance. It is centered on the page, with a white horizontal bar passing through its middle. The text "Closing Comments" is centered on this bar.

## Closing Comments

# Closing Remarks & Next Steps

## *Clinical update on CA-4948 (IRAK4) and CI-8993 (VISTA)*

### CA-4948

- Initial clinical data demonstrate clear anti-cancer activity with a single, oral agent in specific genetic populations of AML/MDS

#### Next Steps

*Plan to discuss potential for a rapid registrational path with FDA in 2022*

### CI-8993

- Initial safety data appear to demonstrate that expected immune effects (cytokine release) can be managed, and early PK/PD data show that anti-cancer mechanisms are being activated

#### Next Steps

*Continue dose-escalation for signs of anti-cancer activity and determination of RP2D*



Q&A