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SENTI-202-101

Promising Results in the Treatment of Relapsed/Refractory Acute Myeloid Leukemia (R/R AML) in Ongoing Phase 1 Trial (SENTI-202-101)

December 9, 2025

Conference Call and Webcast

NASDAQ: SNTI | sentibio.com

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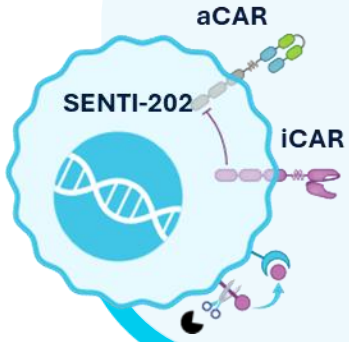
Pipeline of Best-in-Class Logic Gated Cell Therapies

Enable CAR-NK / CAR-T Cells to Address Blockbuster Liquid and Solid Tumors

Senti Bio's Logic Gate Approach



SENTI-202 and Other Undisclosed Programs

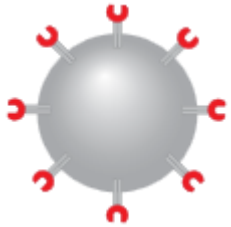
Recognizes Multiple Antigen Targets

OR Gate (aCAR)
e.g., Kill if you see Antigens CD33 or FLT3

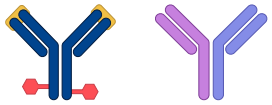
NOT Gate (iCAR)
e.g., Do Not Kill if you see Antigen EMCN even if you see CD33 or FLT3

Cancer Cells	Healthy Cells
KILL	PROTECT (DO NOT KILL)

Non-Logic Gate Approaches



Commercially approved CAR T cell therapies



Biologics (ADC/TCE)*

Recognize Single Antigen Target
Single Antigen Target may be found on both cancer and healthy cells

Cancer Cells	Healthy Cells
KILL	KILL

*ADC: antibody drug conjugate; TCE: T cell engagers

Investment Highlights

Lead Program | SENTI-202

First-in-Class Off-the-Shelf Logic-Gated Selective CD33 OR FLT3 NOT EMCN CAR NK Cell Therapy

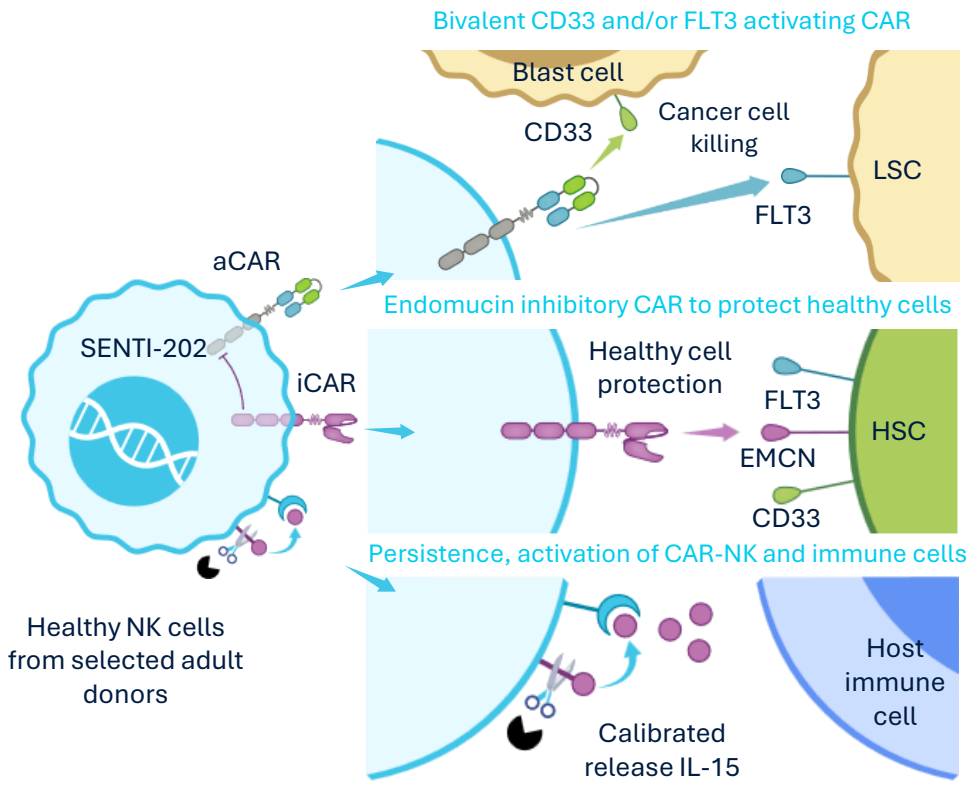
Investment from Leading Healthcare Institutional Investors

NEA Celadon Partners leaps by Bayer

- ✓ Clinical Proof of Concept further validated with 20 Relapsed Refractory (R/R) AML patients treated in ongoing multinational, multicenter Phase 1 trial
  - ✓ Recommended Phase 2 Dose confirmed
  - ✓ Durable responses with 50% ORR and 42% CR/CRh rates at RP2D, 7.6mo estimated median duration of cCR overall
  - ✓ High MRD-negative rates (e.g., 100% CRs MRD-)
  - ✓ Excellent safety profile, outpatient dosing potential
  - ✓ Confirmed Mechanism of Action of selective killing of AML blasts and leukemic stem cells, with sparing of healthy bone marrow stem cells
- ✓ FDA Regenerative Medicine Advanced Therapy (RMAT) Designation and Orphan Drug Designation (ODD)
- ✓ Next steps: Launch pivotal trial & expand into other indications (e.g., Newly Diagnosed AML) in 2026
- ✓ Validated Logic Gate technology can be expanded into other modalities (e.g., T, in vivo CAR) for additional cancers

*CR: Complete Remission; CRh: CR with partial hematologic recovery; cCR: composite Complete Remission; MRD: Measurable Residual Disease; AML: Acute Myeloid Leukemia

SENTI-202 is a First-in-Class Off-the-Shelf Logic Gated Selective CD33 OR FLT3 NOT EMCN CAR NK Cell Therapy for Blood Cancers



SENTI-202 Design

- **OR Logic Gate "Kills"** leukemia blasts and LSCs via CD33 OR FLT3 activating CAR (aCAR)
  - CD33 and/or FLT3 expressed in ~95% of AML patients with CD33 being predominantly expressed on bulk blasts and FLT3 on LSCs
- **NOT Logic Gate "Protects"** healthy HSC/HSPCs from 'off-tumor, on-target' effects
  - Protection of HSC/HSPCs via Endomucin (EMCN) inhibitory CAR (iCAR), even when they express CD33 and/or FLT3
  - EMCN found predominantly on healthy HSC/HSPC surface, rarely on AML blasts
- **Calibrated release IL-15 "Enhances"** SENTI-202 and host immune cell activity and persistence
- NK cells have **inherent clinical anti-AML activity**

SENTI-202 is designed to selectively kill both AML blasts and LSCs while protecting healthy HSC/HSPCs using its novel CD33 OR FLT3 NOT EMCN Logic-Gated gene circuit

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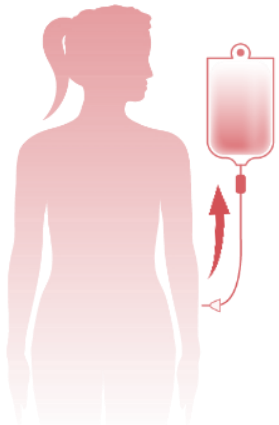
LSC: Leukemic stem cells; HSC: hematopoietic stem cell; HSPC: hematopoietic stem and progenitor cell

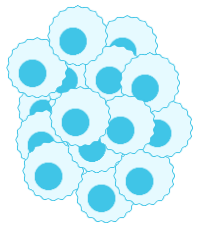
SENTI-202 is an Off-the-Shelf Allogeneic CAR-NK Cell Therapy Available On-Demand

Scalable ~14 Day Manufacturing Process

1 ***Isolate From Selected Donors***

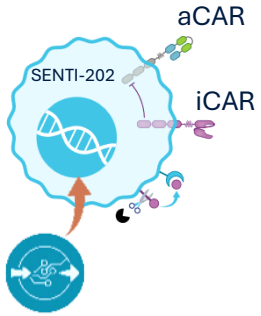


Selected Donors



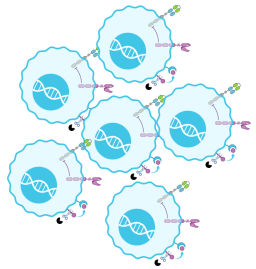
NK Cells

2 ***Engineer***



Single transduction step delivers the full Gene Circuit

3 ***Expand***



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4 ***Cryopreserve***

Final product harvested and cryopreserved

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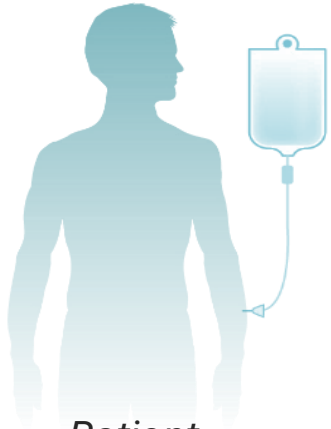
1 ***Thaw and Infuse***



Patient

NK cells isolated from peripheral blood of selected adult donors

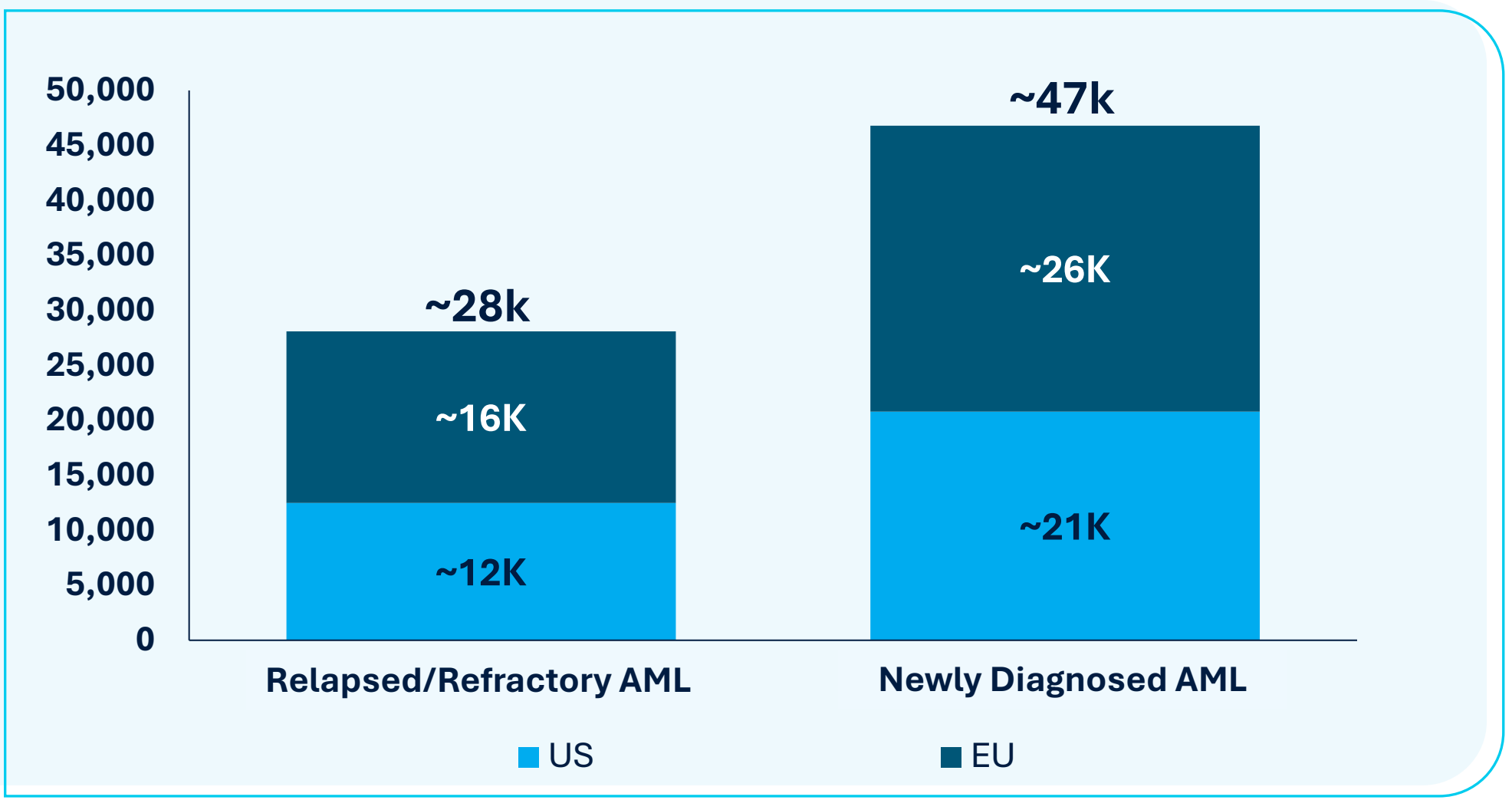
NK cells efficiently engineered with Gene Circuits

High post-thaw potency

Easy-to-thaw vials

Outpatient use potential

SENTI-202 Has the Potential to Address Major Unmet Needs in AML, a Multi-Billion Dollar Market Opportunity



NDAML estimates per Wall Street research; R/R AML estimates assume 60% of new AML cases become relapsed/refractory

Methodist PHYSICIANS

Nosha Farhadfar, MD

Hematologist and Bone Marrow Transplant Physician

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High Unmet Need in Patients with R/R AML Even With Recently Approved Therapies

R/R AML Treatment

1. Eligible for clinical trial? Yes, first priority
2. Eligible for allogeneic HCT?

Yes

Mutation-agnostic therapies

Step 1*
- Salvage chemotherapy +/- venetoclax

Targeted therapies

Step 1
- *FLT3* mutated: Gilteritinib
- *IDH1* mutated: Ivosidenib#, Olutasidenib#
- IDH2 mutated: Enasidenib#
- *NPM1* mutated: Revumenib#, Ziftomenib#^
- *KMT2A* translocation: Revumenib#^

No

Mutation-agnostic therapies

Step 1

No standard therapy
- Clinical trials best choice
- Change agents
- Best supportive care

Step 2: Allogeneic HCT¶

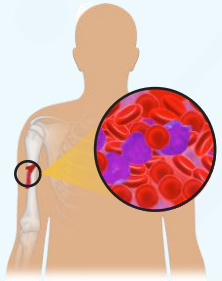
Step 3: Consider maintenance therapy

If no allogeneic HCT, continue treatment

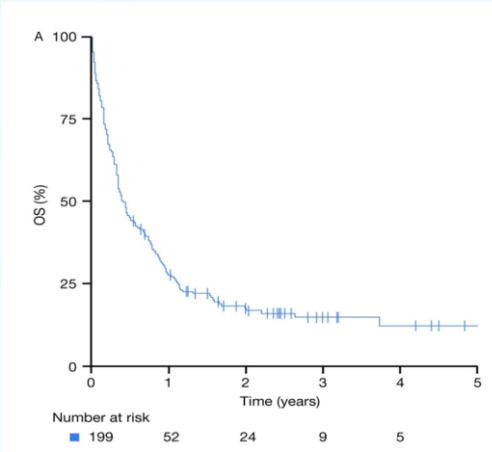
* Some patients might go directly to allogeneic HCT or receive lower intensity regimens
¶ Consider DLIs for relapse post HCT, second HCT only indicated in selected patients
#Approved by FDA but not EMA for R/R AML pts

Adapted from *Thol et al. 2024* with updates to include menin inhibitors^

R/R AML Patients Have Poor Prognosis



- Current standard of care responses[1,2]
  - CR rate ~12-25%
  - CR/CRh rate ~20-35%



- Median OS: 5.3 months (95% CI 4.0-7.5)[3]
- 5-year OS: 12.6% (95% CI 7.5-21.1)

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HCT: Hematopoietic cell transplantation; CR: complete remission; CRh: complete remission with partial hematologic recovery; OS: overall survival

1: Dohner Blood 2022; 2: USPI Idhifa, Rezlidhia, Xospata, Tibsovo, Revuforj, Mylotarg, Komzifti; 3: Brandwein AJBR 2020;

AML Response Categories and Clinical Benefit

	AML Blasts	Peripheral Blood Counts
Complete Remission (CR)	Bone marrow blasts <5% **and** Absence of circulating blasts **and** Absence of extramedullary disease When assessed for measurable residual disease or MRD (e.g., by MFC, sensitivity of ≤10^{-4}), responses can be without MRD (MRD-) or MRD+	ANC ≥ 1.0 x 10^9/L **and** PLT ≥ 100 x 10^9/L
CR with partial hematologic recovery (CRh)		ANC ≥ 0.5 x 10^9/L **and** PLT ≥ 50 x 10^9/L
CR with incomplete hematologic recovery (CRi)		Residual neutropenia (ANC < 1.0 x 10^9/L) **or** Residual thrombocytopenia (PLT < 100 x 10^9/L)
Morphologic Leukemia-Free State (MLFS)		No count recovery
MFC: Multiparameter flow cytometry; ANC: Absolute Neutrophil Count; PLT: Platelet Count		

Achieving response correlates with clinical benefit especially when

- CR/CRh
- MRD-
- Able to be consolidated with allogeneic HCT which is best chance of cure for R/R AML patients

Current available therapies limited by

- Low CR/CRh/MRD rates,
- Significant myelotoxicity and other vital organ toxicities (e.g. cardiac, hepatic, differentiation syndrome)

Novel Effective Therapies With Limited On-Target Off-Tumor Toxicities are Urgently Needed

HCT: Hematopoietic cell transplantation; cRC: CR + CRh + CRi
Dohner Blood 2022

How SENTI-202 Could Fit Into the Evolving AML Treatment Landscape

✓ Novel and Differentiated Mechanism of Action

- Targets LSCs while sparing healthy HSPCs
- Potential to deliver deep, durable MRD-responses

✓ Phase 1 Clinical Data Shows Excellent Efficacy and Safety Consistent with MoA

- Potential to be stand-alone therapy in patients not eligible for HCT
- Safety profile allows use before or after targeted therapies

✓ Broader Patient Reach

- Not mutation-restricted; fits most R/R AML patients
- Favorable safety supports outpatient use
- Rapid responses within 1–2 cycles reduces need for long-term treatment

✓ Opportunity to Expand Beyond R/R AML

- Well-tolerated profile supports combination with frontline standard of care
- Opportunity to expand to pediatric AML and higher-risk MDS

Key Results from 20 Patient R/R AML trial indicate Excellent Efficacy and Safety Profile:

~40% CR/CRh, 100% CR MRD-, median duration 7+ mo, Transient Grade 1/2 pyrexia most common related AE

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LSCs: Leukemic stem cells; HSPCs: Hematopoietic stem and progenitor cells

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President, Head of R&D and CMO

SENTI-202-101 is a Multicenter, Multinational, Open-label Phase 1 Trial in Patients with R/R Hematologic Malignancies*

Key Eligibility Criteria

ADULT PATIENTS | ≥18 & <75 YEARS | ECOG PS 0-1

- R/R CD33 and/or FLT3 expressing hematologic malignancies
- CD33+ by local assessment
  - R/R AML (1-3 prior therapies)
  - R/R MDS with increased blasts[1] (1-2 prior therapies)
- Must have received targeted agents if applicable mutations

Study Design

"3 + 3"

Dose finding followed by AML, MDS and other disease specific expansion cohorts at RP2D

Study Dosing

2 DOSE LEVELS and 2 SCHEDULES

Starting dose level anticipated to be biologically active

Key Objectives

Primary objective

- Safety and determination of MTD/RP2D
- Efficacy (expansion cohorts) based on ELN2022 criteria for AML

Other key objectives

- Measurable residual disease assessed locally
- Pharmacokinetics
- Pharmacodynamics using CyTOF on serial BM samples

*NCT06325748

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ECOG PS: European Cooperative Oncology Group performance status; MTD: maximum tolerated dose; RP2D: recommended phase 2 dose; ELN: European LeukemiaNet; CyTOF: Cytometry by Time-of-Flight; BM: bone marrow; 1Per WHO 2022 Classification

Study Treatment Dosing and SENTI-202 RP2D Selection

Study Treatment

Lymphodepletion
Fludarabine 30 mg/m^2/
Cytarabine (Ara-C) 2 g/m^2

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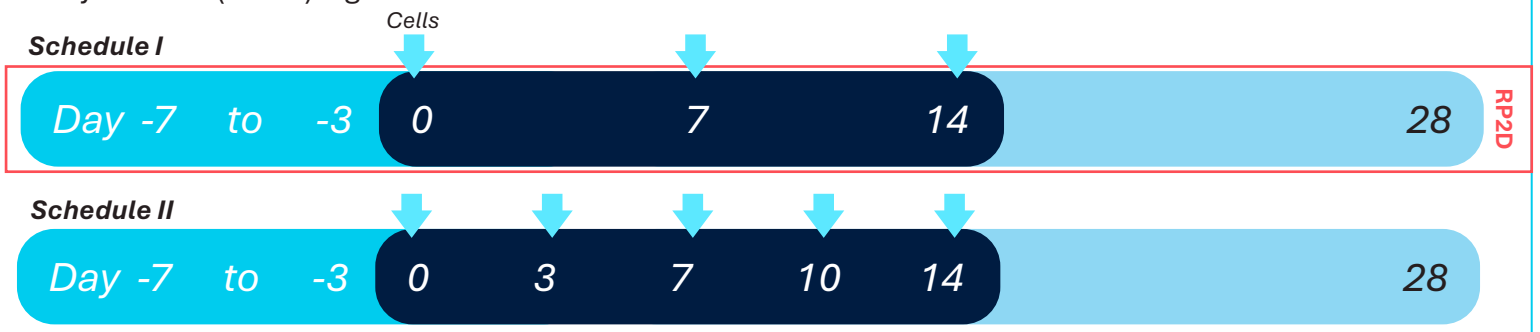
Efficacy Assessment
Up to 4 cycles allowed to achieve optimal response



Dose Finding

Dose Level	1	2
CAR+ NK Cells/Dose	1 × 10^9	1.5 × 10^9

RP2D

9 R/R AML patients (pts) initially enrolled in dose finding

6 pts in Dose Level 1
(3 each in Schedule I and II)

3 pts in Dose Level 2
(all 3 in Schedule I)

Preliminary RP2D determined to be Dose Level 2, Schedule I based on:

- No DLTs/ SENTI-202 related SAEs in any patient/ any dose level
- Numeric increase in efficacy with
  - Dose Level 2 compared to Dose Level 1 with ORR of 67% (2/3) vs 50% (3/6)
  - Schedule I compared to Schedule II with ORR of 67% (4/6) vs 33% (1/3)

R/R AML expansion cohort opened after:

- RP2D confirmed as Dose Level 2, Schedule 1 with 3 additional R/R AML patients with no DLTs and continued efficacy

Here we present clinical data from 20 R/R AML patients, including 14 at RP2D and 6 at Dose Level 1

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RP2D: recommended Phase 2 dose ; DLTs: dose limiting toxicities; ORR: overall response rate; SAEs: treatment emergent serious adverse events. Data from an open clinical database of an ongoing study as of 17-Oct-2025

Study Enrolled R/R AML Patients with Multiple Baseline Adverse-risk Characteristics and Poor Prognosis

	Dose Level 1	Dose Level 2/RP2D	
Baseline Characteristics	1 x 10^9 CAR+ NK cells/ dose N=6	1.5 x 10^9 CAR+ NK cells/ dose N=14	All Patients N=20
Age, yr, median (range)	52.5 (26, 72)	**49 (19, 69)**	49 (19, 72)
Male, n (%)	3 (50)	**7 (50)**	10 (50)
Race, White/ Other, n (%)	5 (83) / 1 (17)	**11 (79) / 3 (21)**	16 (80) / 4 (20)
ECOG PS 0-1, n (%)	5 (83)	**13 (93)**	18 (90)
Adverse risk by ELN 2022 at diagnosis, n (%)	5 (83)	**8 (57)**	13 (65)
Baseline bone marrow blasts, %, median (range)	21.5 (15.1, 69)	**45.2 (6, 92.5)**	35 (6, 93)
Mutational Status at baseline			
FLT3: ITD/ TKD/ Type Unk mutated, n (%)	0 / 0 / 1 (17)	**3 (21) / 0 / 0**	3 (15) / 0 / 1 (5)
IDH1/ IDH2 mutated, n (%)	0 / 0	**0 / 1 (7)**	0 / 1 (5)
Baseline absolute neutrophil count < 1 x 10^9/L, n(%)	1 (17)	**12 (86)**	13 (65)
Baseline platelet count < 50 x 10^9/L, n(%)	2 (33)	**11 (79)**	13 (65)

- Majority of patients had AML with adverse risk genetics by ELN 2022 criteria
- RP2D cohort enrolled patients with increased baseline blasts and more patients with baseline thrombocytopenia/neutropenia

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ECOG PS: European Cooperative Oncology Group performance status; ELN: European LeukemiaNet; Dose Level 1 patients include 3 each dosed in Schedule I and Schedule II, Dose Level 2 patients were all dosed in Schedule I. Data from an open clinical database of an ongoing study as of 17-Oct-2025

Heavily Pretreated R/R AML Population Including Many Primary Refractory & Refractory to Most Recent Line of Therapy Before Study Entry

	Dose Level 1	Dose Level 2/ RP2D	
Prior AML Treatments	1 x 10^9 CAR+ NK cells/ dose N=6	1.5 x 10^9 CAR+ NK cells/ dose N=14	All Patients N=20
Years from AML diagnosis to study entry, median (range)	0.6 (0.3, 6.1)	**0.85 (0.2, 8.6)**	0.75 (0.2, 8.6)
Number of prior lines, median (range)	1 (1,2)	**2 (1,3)**	2 (1, 3)
Chemotherapy, n (%)	6 (100)	**14 (100)**	20 (100)
Fludarabine and/or Cytarabine, n (%)	6 (100)	**14 (100)**	20 (100)
Cytarabine (Ara-C), n (%)	6 (100)	**14 (100)**	20 (100)
Fludarabine (Flu) , n (%)	2 (33)	**5 (36)**	7 (35)
Anthracycline, n (%)	5 (83)	**11 (79)**	16 (80)
Venetoclax, n (%)	4 (67)	**13 (93)**	17 (85)
Hypomethylating Agents, n (%)	4 (67)	**11 (79)**	15 (75)
FLT3/IDH targeted therapy, n (%)	2 (33)/ 0	**3 (21)/ 1 (7)**	5 (25)/1 (5)
Prior HCT, n (%)	1 (17)	**6 (43)**	7 (35)
Refractory to most recent regimen, n (%)	1 (17)	**11 (79)**	12 (60)
Primary refractory*, n (%)	3 (50)	**8 (57)**	11 (55)
Refractory to Flu and/or Ara-C containing regimen, n (%)	3 (50)	**8 (57)**	11 (55)

- All patients were exposed to chemotherapy
- Most patients were exposed to anthracycline, venetoclax & hypomethylating agents
- RP2D cohort enrolled patients who were more heavily pre-treated, more prior HCT and more patients refractory to most recent regimen before SENTI-202 compared to Dose Level 1

*Primary refractory defined as failure to achieve complete remission +/- count recovery lasting <3 mo with front-line therapy. Dose Level 1 patients include 3 each dosed in Schedule I and Schedule II, Dose Level 2 patients were all dosed in Schedule I. Data from an open clinical database of an ongoing study as of 17-Oct-2025

Patients Received a Median of 1 Cycle on Treatment Overall and None Discontinued Due to an Adverse Event

	Dose Level 1	Dose Level 2/ RP2D	
Exposure	1 x 10^9 CAR+ NK cells/ dose N=6	1.5 x 10^9 CAR+ NK cells/ dose N=14	All Patients N=20
Number of SENTI-202 treatment cycles, n (%)			
1 Cycle	2 (33)	**12 (86)**	14 (70)
2 Cycles	4 (67)	**2 (14)**	6 (30)
Number of SENTI-202 Cycles, median (range)	2 (1,2)	**1 (1,2)**	1 (1, 2)
Subjects continuing treatment as of data-cut, n (%)	0	**4 (29)**	4 (20)
Subjects discontinuing treatment, n (%)	6 (100)	**10 (71)**	16 (80)
Adverse Event	0	**0**	0

- In general, RP2D patients achieved a response with 1 Cycle and received a median of 1 Cycle of SENTI-202 compared to Dose Level 1 patients who received a median of 2 Cycles

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CR: complete remission, CRh :CR with partial hematologic recovery; MLFS: morphologic leukemia- free state. Dose Level 1 patients include 3 each dosed in Schedule I and Schedule II, Dose Level 2 patients were all dosed in Schedule I. Data from an open clinical database of an ongoing study as of 17-Oct-2025

Any Grade 3+ Treatment Emergent Adverse Events (AE) or Serious Adverse Events (SAE) On Study, Regardless of Relationship to SENTI-202

	Dose Level 1	Dose Level 2/ RP2D	
Event Term	1 x 10^9 CAR+ NK cells/ dose N=6	1.5 x 10^9 CAR+ NK cells/ dose N=14	All Patients N=20
Any ≥ Grade 3 AE, n (%) regardless of relationship*	6 (100)	**12 (86)**	18 (90)
Febrile Neutropenia	2 (33)	**7 (50)**	9 (45)
Platelet Count Decreased	2 (33)	**2 (14)**	4 (20)
Anemia	2 (33)	**1 (7)**	3 (15)
Thrombocytopenia	1 (17)	**2 (14)**	3 (15)
Pneumonia	0	**3 (21)**	3 (15)
Abdominal Pain	3 (50)	**0**	3 (15)
Hypokalemia	0	**2 (14)**	2 (10)
Hypoxia	1 (17)	**1 (7)**	2 (10)
Sepsis	0	**2 (14)**	2 (10)

*All events are unrelated to SENTI-202 as assessed by the Investigator except for 1 patient with events of both Grade 3 febrile neutropenia and Grade 4 platelet count decreased

	Dose Level 1	Dose Level 2/ RP2D	
Event Term	1 x 10^9 CAR+ NK cells/ dose N=6	1.5 x 10^9 CAR+ NK cells/ dose N=14	All Patients N=20
Any Grade SAE, n (%) regardless of relationship*	2 (33)	**5 (36)**	7 (35)
Pneumonia	0	**2 (14)**	2^ (10)
Sepsis	0	**2 (14)**	2^ (10)

*All events are unrelated to SENTI-202 as assessed by the Investigator, ^1 patient experienced both events

- Grade 3+ AEs or SAEs of any Grade in ≥10% of patients are predominantly hematologic events or pneumonia/sepsis in the setting of neutropenia and consistent with effects of LD chemotherapy in patients with R/R AML
- Hematologic events generally resolved rapidly in patients achieving CR/CRh with SENTI-202

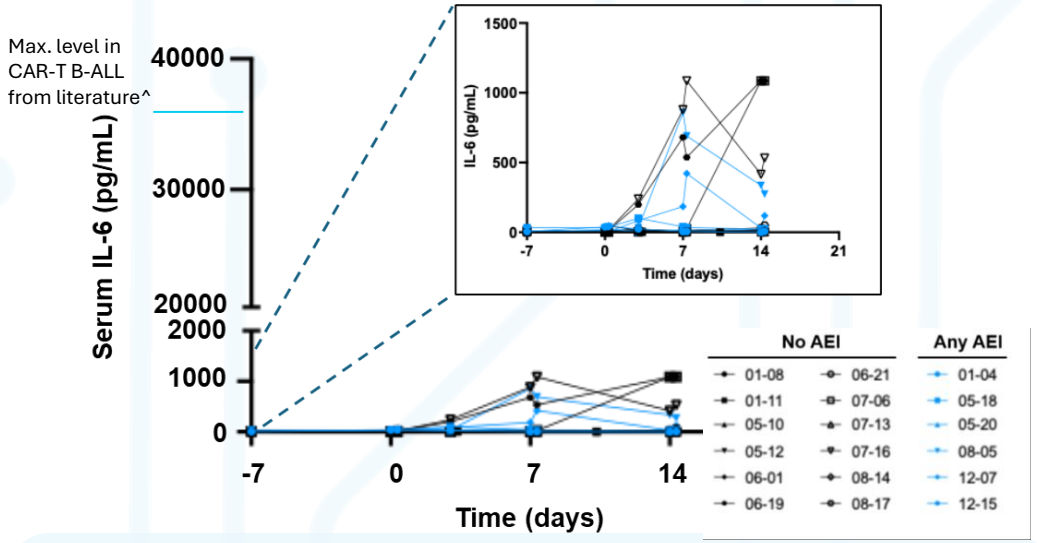
SENTI BIO

Treatment emergent adverse events includes events with onset after SENTI-202 dosing and within 30 days of last dose of study treatment regardless of relationship, and events that are at least possibly related to SENTI-202 with onset date > 30 days after last dose of study treatment. Grading per CTCAE v5.0. Dose Level 1 patients include 3 each dosed in Schedule I and Schedule II, Dose Level 2 patients were all dosed in Schedule I. Data from an open clinical database of an ongoing study as of 17-Oct-2025

SENTI-202 Related AEIs are Predominantly Grade 1/2 Pyrexia Events That are Readily Managed with Standard of Care

Dose	Pt	Event Term	Grade	Onset Day from Most Recent Dose of SENTI-202	Duration of Event	AEI Term	Serious? / Resolution
Dose Level 1 (1×10^9 CAR+ NK cells/ dose)	01-04	Pyrexia Chills	2 1	0	<24 hours	CRS	No / Resolved with Standard of Care
	08-05	Pyrexia Hypotension	1 1	0 3	5 days < 24 hours		
Dose Level 2 /RP2D (1.5×10^9 CAR+ NK cells/ dose)	12-07	Pyrexia Hypoxia	1 2	1	< 24 hours		
	05-18	Pyrexia Pyrexia Hypotension	1 2 2	2 7 7			
	05-20	Pyrexia	2	1			
	12-15	Pyrexia	1	0	< 24 hours	IRR	
	12-22	IRR	1				

AEI: Treatment Emergent Adverse Event of Interest, Pt: Patient ID, CRS: Cytokine Release Syndrome, IRR: Infusion Related Reaction



SENTI-202 related AEIs reported in 7/20 (35%) of patients:

- Grade 1/2 pyrexia +/- chills, hypotension and/or hypoxia
- Majority on day of dosing and resolved rapidly with standard of care
- Reported as CRS or IRR and all events non-serious
- Consistent with delayed infusion related reactions reported with NK cell therapies
- Cytokines, including IL-6, generally not elevated on trial including in patients experiencing any AEI

SENTI BIO

Grading per ASTCT criteria where applicable; Dose Level 1 patients include 3 each dosed in Schedule I and Schedule II, Dose Level 2 patients were all dosed in Schedule I. * Sample values ULOQ for 2 patients; ^ IL-6 levels referenced from Teachey et al (2016), maximum level observed from adult cohort treated with anti-CD19 CAR-T; Data from an open clinical database of an ongoing study as of 17-Oct-2025

50% of Patients Achieved a Response with SENTI-202 Treatment

	Dose Level 1	Dose Level 2/RP2D	
Response	1 x 10^9 CAR+ NK cells/ dose N=6	1.5 x 10^9 CAR+ NK cells/ dose N=12	All Patients N=18^
Overall Response Rate (ORR), n (%)	3 (50)	**6 (50)**	9 (50)
CR/CRh rate, n (%)	2 (33)	**5 (42)**	7 (39)
Response Category, n(%)			
CR	2 (33)	**3 (25)**	5 (28)
CRh	0	**2 (17)**	2 (11)
MLFS	1 (17)	**1 (8)**	2 (11)
Negative MRD* Status, n/n (%)			
in CR patients	2/2 (100)	**3/3 (100)**	5/5 (100)
in CR/CRh patients	2/2 (100)	**4/5 (80)**	6/7 (86)
in CR/CRh/MLFS patients	2/3 (67)	**5/6 (83)**	7/9 (78)
Median Time to Response (min, max), mo	1.2 (1.1,1.2)	**1.2 (1.0,1.3)**	1.2 (1.0, 1.3)
Median Duration of Follow-Up (min, max) mo	8.0 (3.6, 17.5)	**3.1 (0.9, 9.1)**	4.8 (0.9, 17.5)

^2 patients early in Cycle 1 and too early to evaluate response as of data cut-off date; *MRD assessed by multi-parametric flow (sensitivity ≤10^{-4}) in all patients except one (assessed by NGS, sensitivity ≤10^{-2})

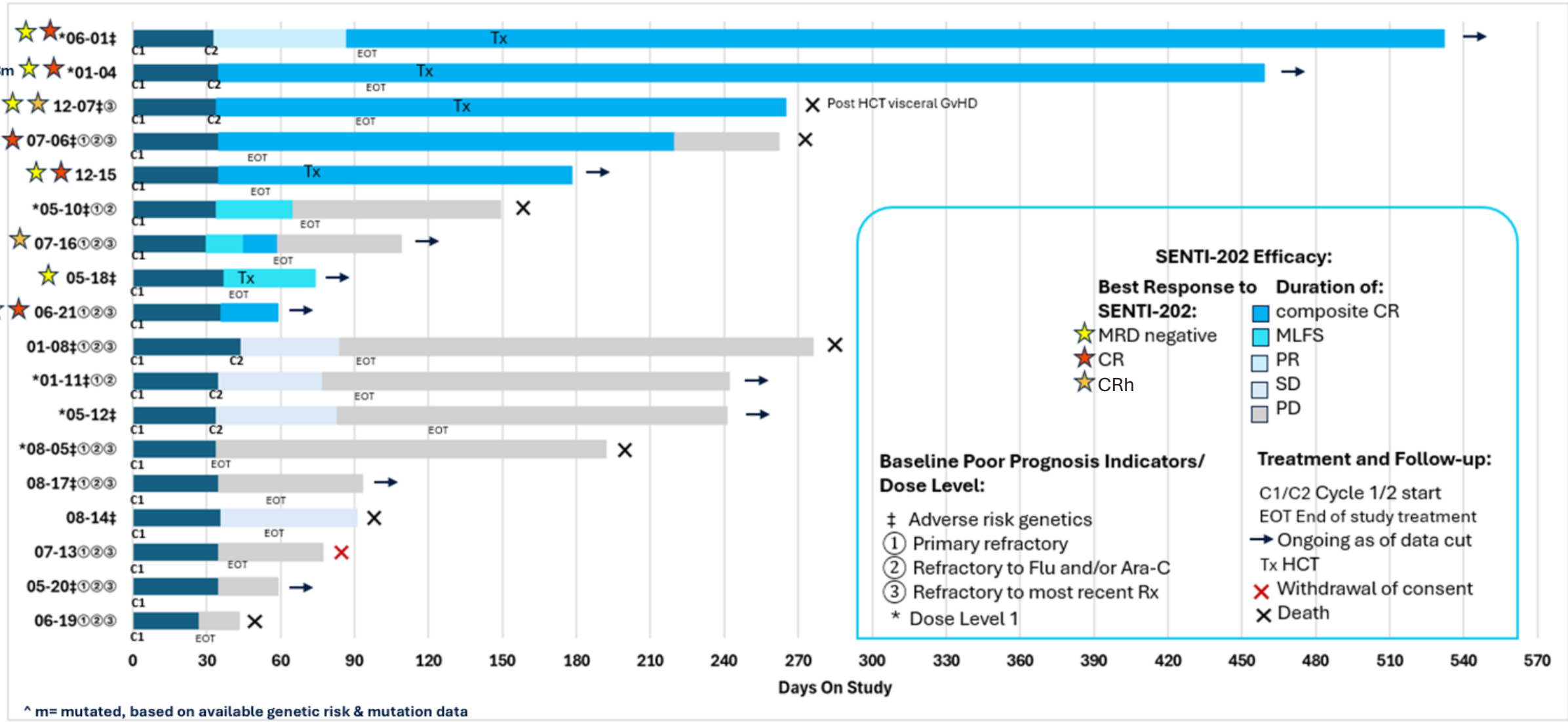
50% of patients at RP2D and overall achieved a response

- 42% of patients at RP2D and 39% overall achieved a CR/CRh
- All CRs and ~80+% of all responses are MRD negative
- With limited follow up in RP2D cohort, current Kaplan-Meier estimate of median duration of composite CR across all patients:
  - 7.6 months (25th and 75th percentile being 6.1, NE)

SENTI BIO

CR: complete remission, CRh:CR with partial hematologic recovery; MLFS: morphologic leukemia- free state; MRD: measurable residual disease; NGS; next-generation sequencing; composite CR includes CR/ CRh and CR with incomplete hematologic recovery; NE: not estimated. Dose Level 1 patients include 3 each dosed in Schedule I and Schedule II, Dose Level 2 patients were all dosed in Schedule I. Data from an open clinical database of an ongoing study as of 17-Oct-2025

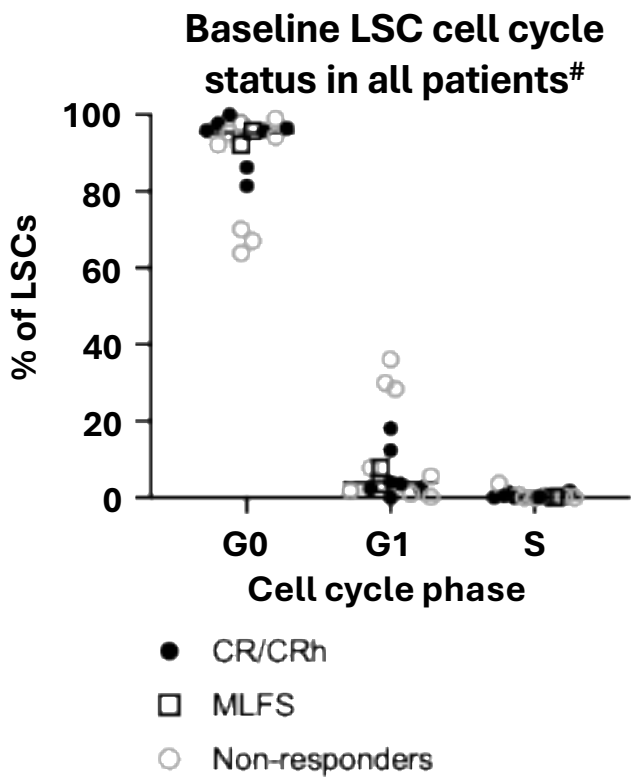
SENTI-202 Responses are Durable with Longest Durability > 1 Year

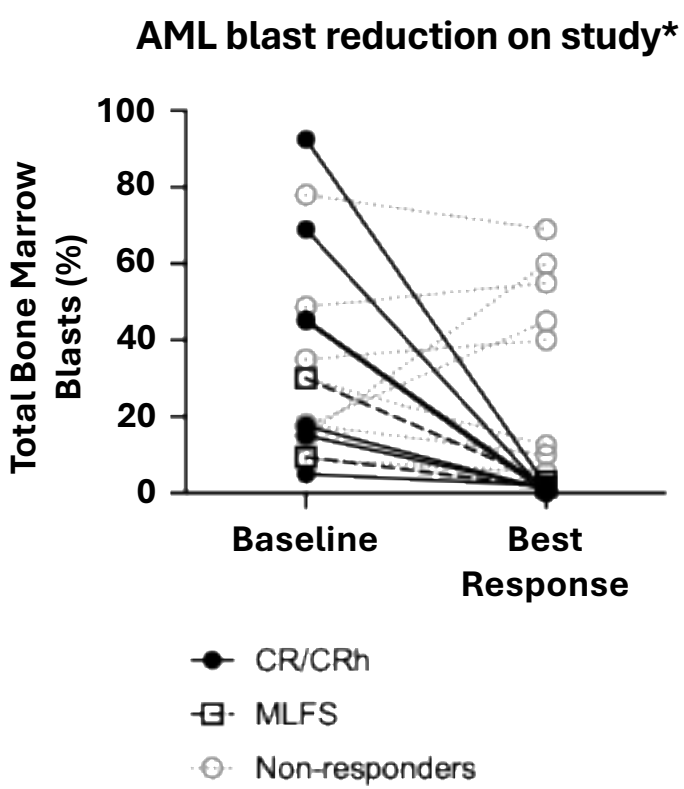


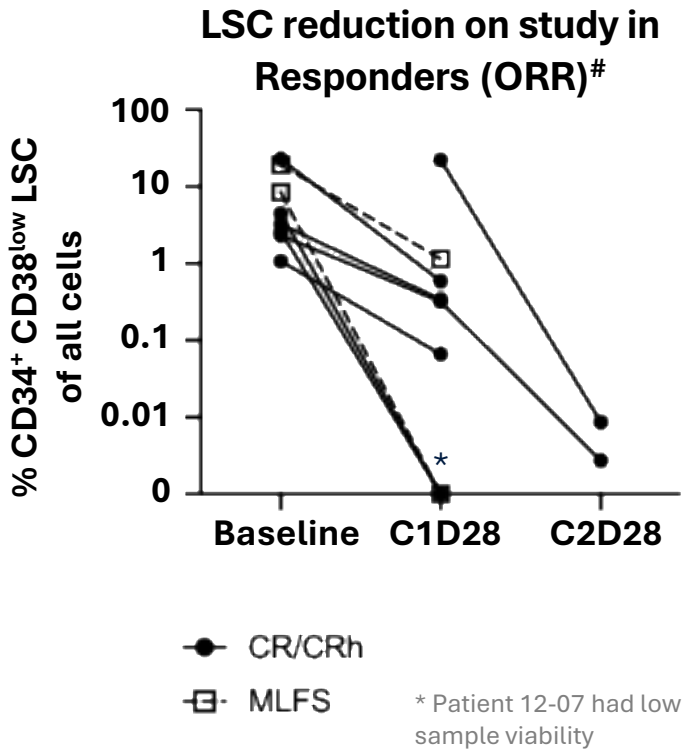
SENTI BIO

CR: complete remission, CRh :CR with partial hematologic recovery; MLFS: morphologic leukemia- free state; PR: partial remission; SD: stable disease; PD; progressive disease. MRD: measurable residual disease assessed by multi-parametric flow (sensitivity $\leq 10^{-4}$) in all patients except one (assessed by NGS, sensitivity $\leq 10^{-2}$); composite CR includes CR/ CRh and CR with incomplete hematologic recovery; HCT: hematopoietic stem cell transplant; GvHD: graft versus host disease. Pt 07-06 had detectable IDH2 mutation by NGS ~3.5 months prior to morphologic relapse and started on venetoclax/enasidenib. Data from an open clinical database of an ongoing study as of 17-Oct-2025

Selective AML Blast and Leukemic Stem Cell (LSC) Killing Consistent with SENTI-202 CD33/ FLT3 "OR" Logic Gate Mechanism of Action







* Patient 12-07 had low sample viability

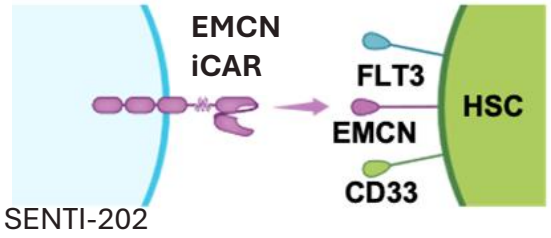
- LSCs in treated patients were mostly quiescent at baseline, and not likely to be responsive to lymphodepleting chemotherapy.
- AML blast reduction was noted in all responders (ORR) and in some non-responders.
- LSC proportions in responder (ORR) bone marrow decreased at least 10-fold after SENTI-202 treatment.

SENTI BIO

Data from an open clinical database of an ongoing study as of 17-Oct-2025; HSC: * Blast reduction as measured by local pathology and assessed by investigators.; # LSC reduction and cell cycle as measured by CyTOF. LSCs were identified as $CD34^{+}$ $CD38^{-/low}$ cells residing in the AML subpopulation. In patients with $CD34^{-}$ disease (n=2), LSCs were defined as $CD38^{-/low}$ (rather than $CD34^{+}$ $CD38^{-/low}$). LSC cell cycle was assessed using Ki-67 and IdU cell cycle markers during CyTOF analysis.

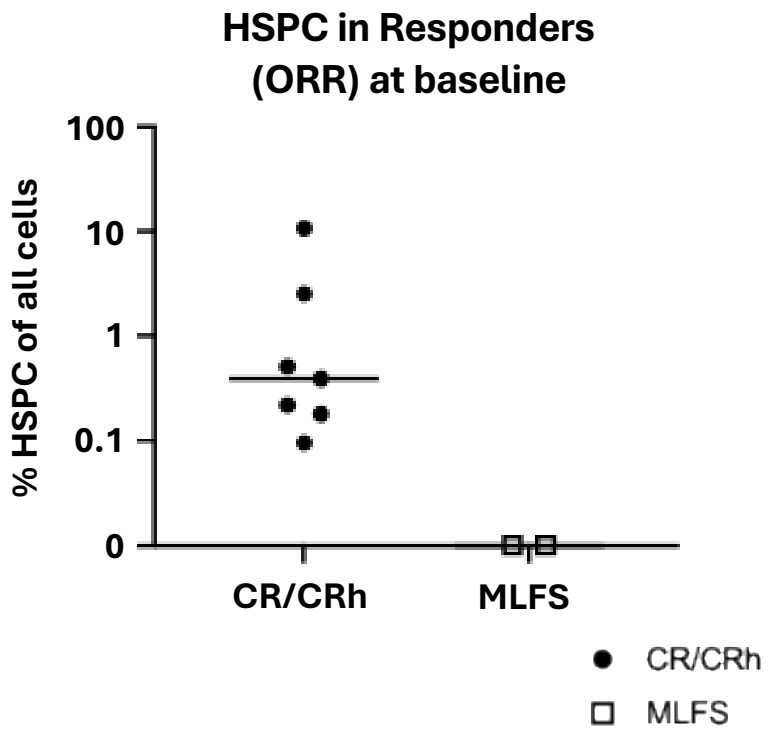
Selective Protection of Healthy Hematopoietic Stem & Progenitor Cells (HSPC) Consistent with SENTI-202 "NOT" Logic Gate Mechanism of Action

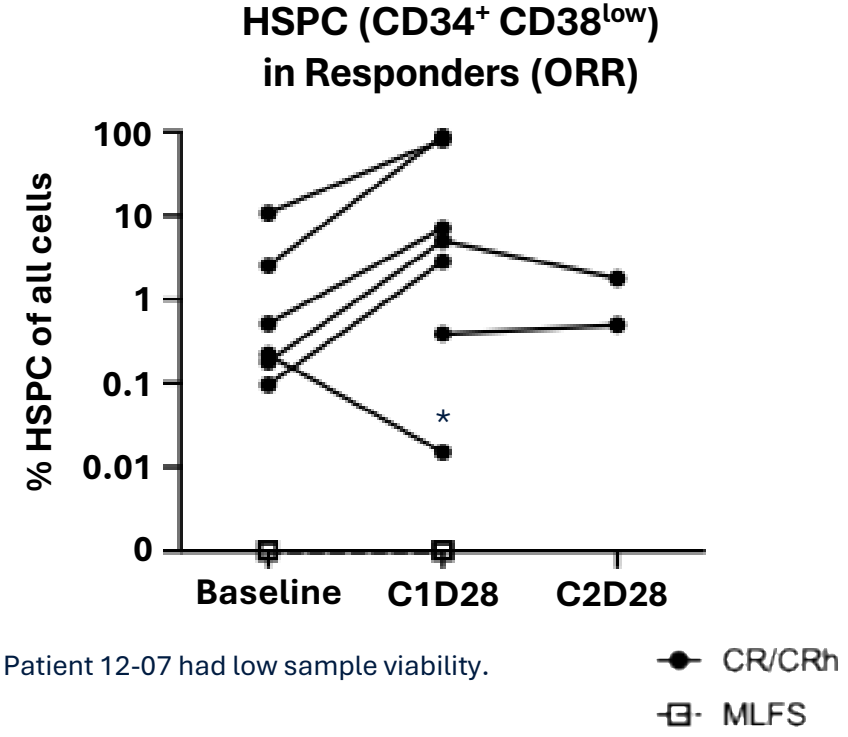
EMCN *inhibitory* CAR (iCAR) protects healthy cells



NOT Logic Gate *protects* healthy HSC/HSPC from *off-tumor, on-target effects*

- Protects HSC/HSPC even when they express CD33 and/or FLT3
- EMCN is found predominantly on healthy HSC/HSPC, and rarely on AML





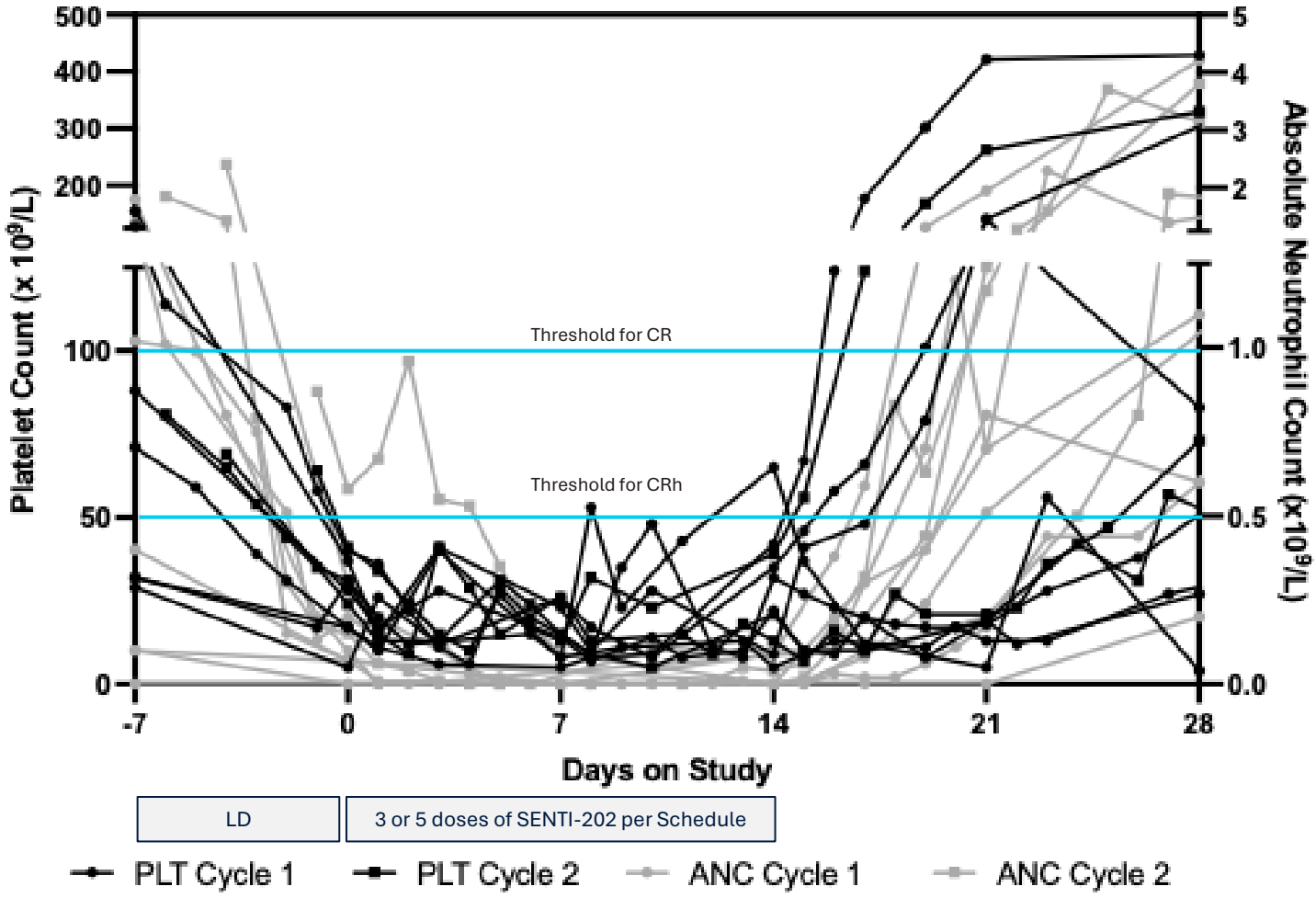
* Patient 12-07 had low sample viability.

- Among all responders (ORR), patients with any detectable HSPC at baseline achieved CR/CRh, while patients with no detectable HSPC at baseline achieved MLFS.
- In responders achieving CR/CRh, the proportion of HSPCs in bone marrow was increased or maintained.

SENTI BIO

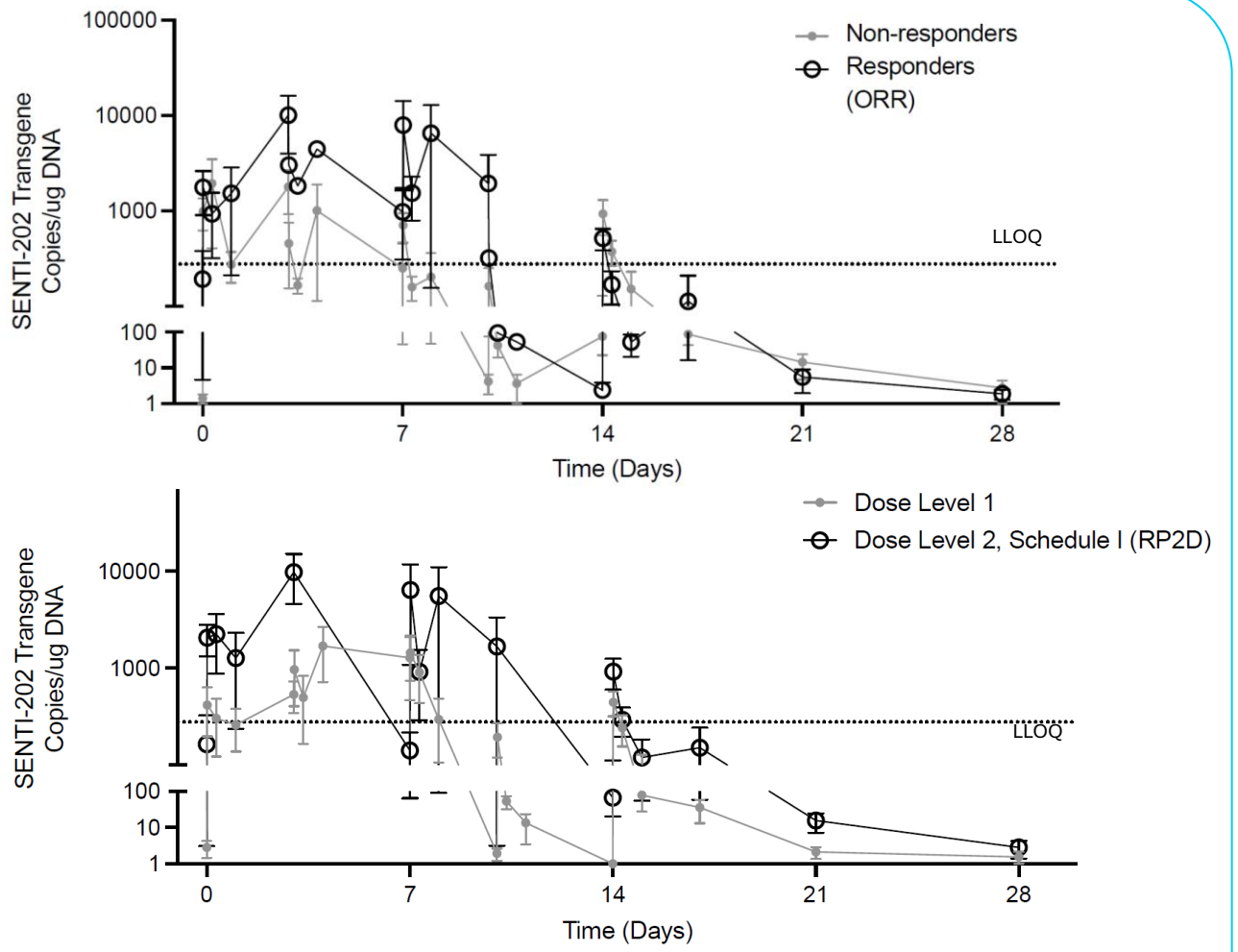
Data from an open clinical database of an ongoing study as of 17-Oct-2025; HSC: Hematopoietic stem cells. HSPCs were measured by CyTOF. HSPCs were identified as CD34+ CD38-/low cells residing in the healthy cell subpopulations.

Rapid Peripheral Blood Cell Count Recovery Consistent with SENTI-202's Unique NOT Gate Mechanism of Action



Data from an open clinical database of an ongoing study as of 17-Oct-2025; Cycles 1 & 2 represented in plot for patients receiving 2 cycles of SENTI-202; CR: complete remission; CRh: CR with partial hematologic recovery; ANC: absolute neutrophil count; PLT: platelet count

SENTI-202 Peripheral Blood Exposure is Generally Consistent Across All Dosed Patients



- SENTI-202 is detected in periphery of treated subjects, with PK profile consistent with allogeneic NK cell therapies
  - Peripheral expansion in the first 14 days
  - Clearance from periphery after the first two weeks
- Patients who responded (ORR) had a preliminary trend* to increased SENTI-202 exposure compared to non-responders
- Preliminary trend* to dose dependent increased SENTI-202 exposure with increased dose level

*statistically not-significant

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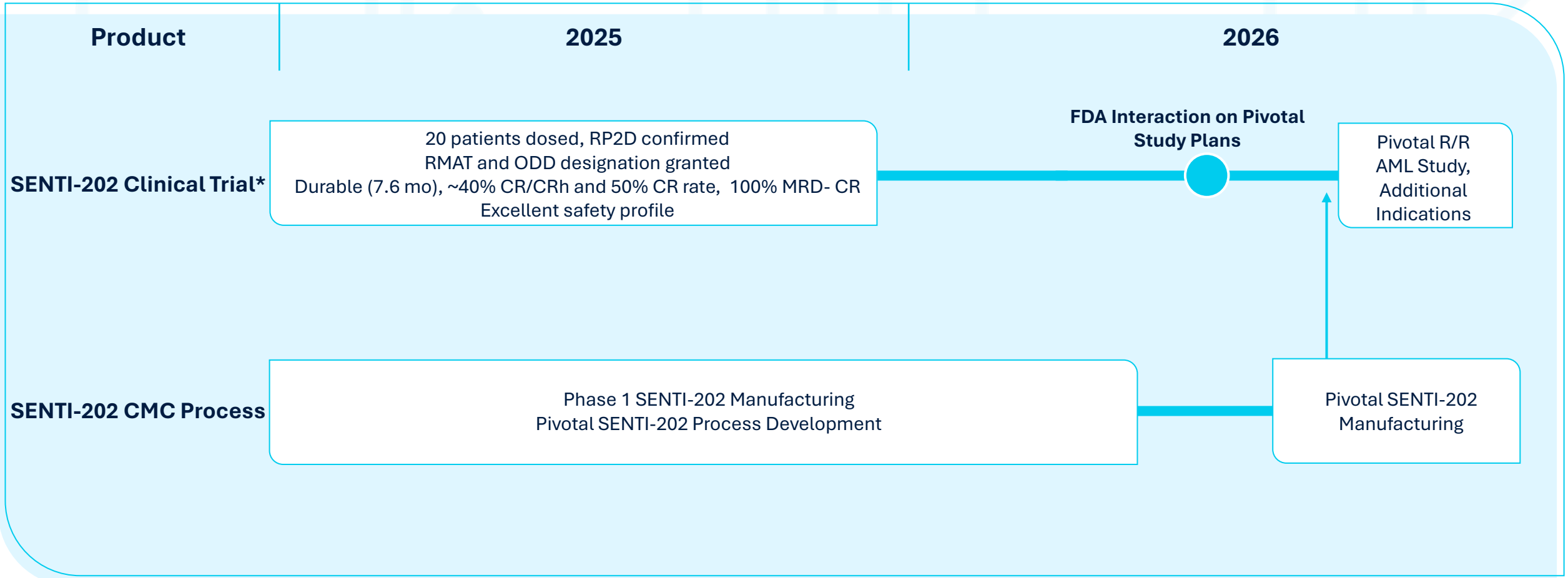
PK: pharmacokinetics; ORR: overall response. Value of 1 assigned for timepoints with non-measurable transgene, LLOQ estimated using equivalent DNA loading and is the lower limit of quantitation; Note: Subject 1 Cycle 1 samples were processed out of stability window and are excluded from analysis of PK parameters
Dose Level 1 patients include 3 each dosed in Schedule I and Schedule II, Dose Level 2 patients were all dosed in Schedule I. Interim PK data as of 17-Oct-2025

SENTI-202 Demonstrated Promising Results in the Treatment of Relapsed/Refractory Acute Myeloid Leukemia

- SENTI-202-101 trial has enrolled heavily treated R/R AML patients with poor prognosis
  - Dose finding is complete with no DLTs/ MTD and RP2D confirmed
  - Dose expansion is ongoing at RP2D of 1.5 x 10^9 CAR+ NK cells/ dose X 3 weekly doses/ 28 days
- SENTI-202 is well tolerated with out-patient dosing potential
  - Most frequent Grade 3+ AEs were predominantly hematologic, unrelated to SENTI-202 and consistent with events observed in R/R AML patients receiving LD
  - No SENTI-202 related SAEs/ Dose Limiting Toxicities/ AEs resulting in discontinuation
  - Most frequent SENTI-202 related AEI Grade 1/2 pyrexia that resolves rapidly with standard of care
- SENTI-202 demonstrates promising preliminary efficacy
  - 50% of patients at RP2D and 50% of patients overall achieved an ORR
  - 42% of patients at RP2D and 39% of patients overall achieved CR/CRh
  - Estimated median duration of composite complete remission across all patients of 7.6 months (6.1, NE)
  - 100% CR and ~80+% of all responses are MRD negative
- SENTI-202 peripheral PK consistent with allogeneic CAR NK cell therapy profiles
  - Preliminary trend to dose dependent increased exposure observed at RP2D and in patients achieving an ORR
- SENTI-202 has received both RMAT and Orphan Drug Designation and expansion cohort continues to enroll
  - Protocol designed to permit seamless Phase 1 to pivotal study transition

Next Steps to Accelerate SENTI-202 into Pivotal Study



*Assumes additional financing to continue pivotal process development end of 2025 and to support enrolment of dose expansion patients in 2026

SENTI BIO

Tim Lu, MD, PhD

CEO and Co-Founder

SENTI-202 Summary

Lead Program | SENTI-202

First-in-Class Off-the-Shelf Logic-Gated Selective CD33 OR FLT3 NOT EMCN CAR NK Cell Therapy

Investment from Leading Healthcare Institutional Investors

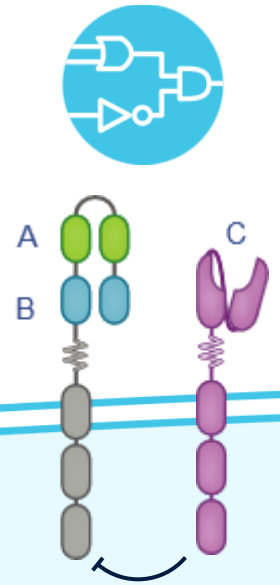
NEA Celadon Partners leaps BAYER

- ✓ Clinical Proof of Concept further validated with 20 Relapsed Refractory (R/R) AML patients treated in ongoing multinational, multicenter Phase 1 trial
  - ✓ Recommended Phase 2 Dose confirmed
  - ✓ Durable responses with 50% ORR and 42% CR/CRh rates at RP2D, 7.6mo estimated median duration of cCR overall
  - ✓ High MRD-negative rates (e.g., 100% CRs MRD-)
  - ✓ Excellent safety profile, outpatient dosing potential
  - ✓ Confirmed Mechanism of Action of selective killing of AML blasts and leukemic stem cells, with sparing of healthy bone marrow stem cells
- ✓ FDA Regenerative Medicine Advanced Therapy (RMAT) Designation and Orphan Drug Designation (ODD)
- ✓ Next steps: Launch pivotal trial & expand into other indications (e.g., Newly Diagnosed AML) in 2026
- ✓ Validated Logic Gate technology can be expanded into other modalities (e.g., T, in vivo CAR) for additional cancers

*CR: Complete Remission; CRh: CR with partial hematologic recovery; cCR: composite Complete Remission; MRD: Measurable Residual Disease; AML: Acute Myeloid Leukemia

Programming Gene Circuits to Enhance the Potential of Cell and Gene Therapies

Logic Gating
to address
Antigen Escape and Specificity

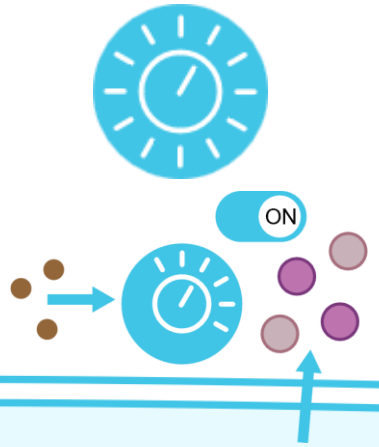


Sense diseased vs healthy cells (e.g., SENTI-202)

Multi-Arming
to address
Immunosuppressive Tumor Microenvironments

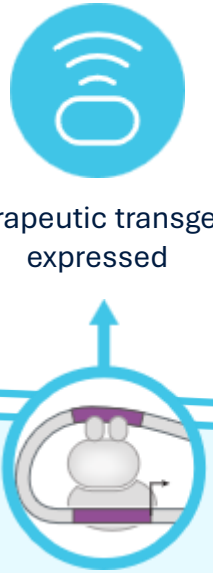
Stimulate immune cells, overcome TME, promote NK cell function

Regulator Dial
to enable
Control for Safety



Dial payload expression up/down

Smart Sensor
to enable
Specificity for Disease

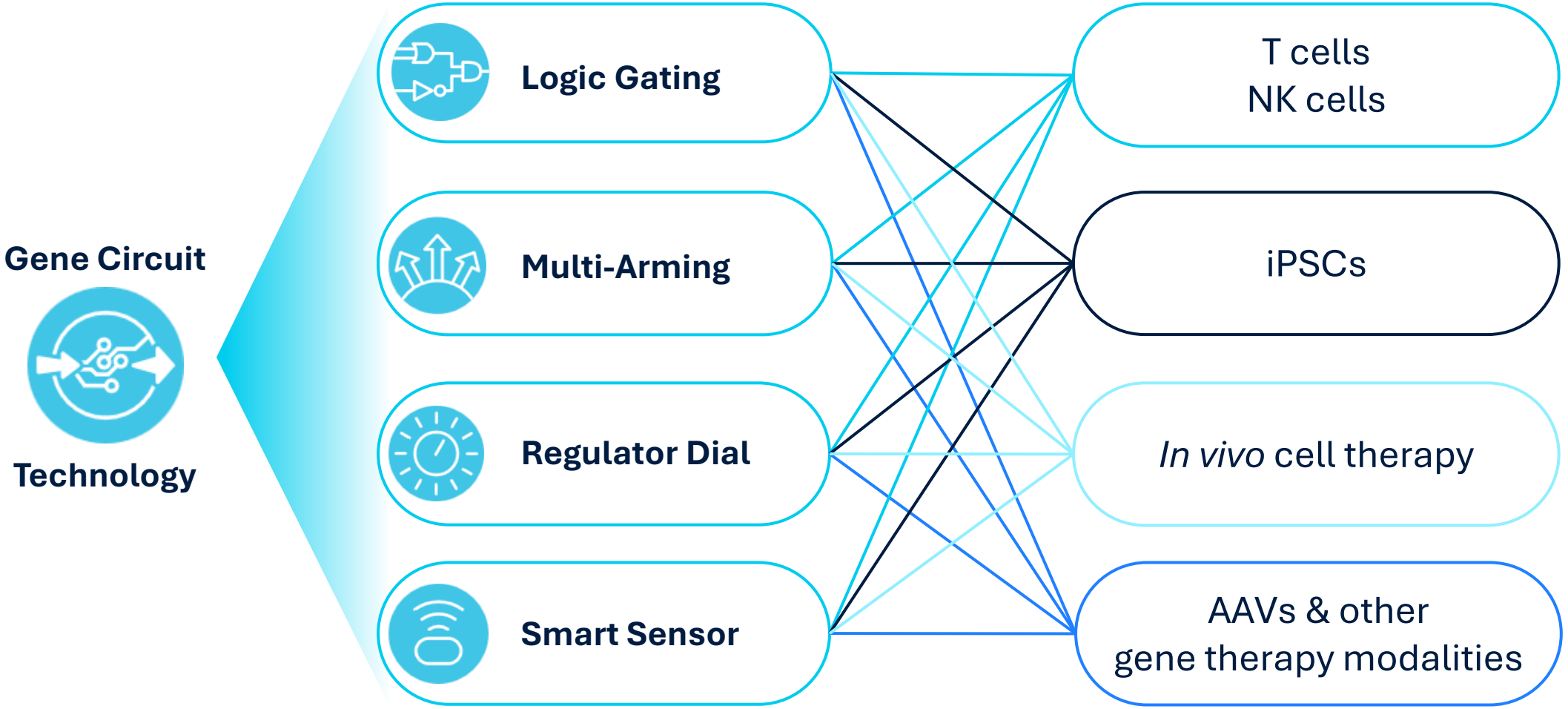


Therapeutic transgene expressed

Cell/disease-specific promoters

Gene Circuits

Senti's Gene Circuits can be Used Across Diverse Cell and Gene Therapy Modalities



Q&A

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