NextCure

APRIL 2024

Corporate Presentation

NASDAQ: NXTC

Forward-Looking Statement

To the extent that statements contained in this presentation are not descriptions of historical facts, they may be deemed to be forward-looking statements under the Private Securities Litigation Reform Act of 1995. These statements are based on current expectations, forecasts, assumptions and other information available to NextCure as of the date hereof. Forward-looking statements include statements regarding NextCure's expectations, beliefs, intentions or strategies regarding the future and can be identified by forward-looking words such as "may," "will," "potential," "expects," "believes," "intends," "hope," "towards," "forward," "later" and similar expressions. Examples of forward-looking statements in this presentation include, among others, statements about the development plans for our products, statements about the progress and evaluation and expected timing of results of NextCure's ongoing or planned clinical trials, expectations regarding the potential benefits, activity, effectiveness and safety of our research stage, preclinical stage, and clinical stage therapeutic candidates, NextCure's financial guidance, expected upcoming milestones, and NextCure's plans, objectives and intentions with respect to the discovery and development of therapeutic products. Forward-looking statements involve substantial risks and uncertainties that could cause actual results to differ materially from those projected in any forward-looking statement. Such risks and uncertainties include, among others: the impacts of the COVID-19 pandemic on NextCure's business, including NextCure's clinical trials, third parties on which NextCure relies and NextCure's operations; positive results in preclinical studies may not be predictive of the results of clinical trials; NextCure's limited operating history and no products approved for commercial sale; NextCure's history of significant losses; NextCure's need to obtain additional financing; risks related to clinical development, marketing approval and commercialization; the unproven approach to the discovery and development of product candidates based on NextCure's discovery platform; and dependence on key personnel. More detailed information on these and additional factors that could affect NextCure's actual results are described in NextCure's filings with the Securities and Exchange Commission (the "SEC"), including in Item 1A of NextCure's most recent Form 10-K, subsequent Form 10-Q and elsewhere in the Company's filings with the SEC. You should not place undue reliance on any forward-looking statements. Forward-looking statements speak only as of the date of this press release, and NextCure assumes no obligation to update any forward-looking statements, except as required by law, even if expectations change.

Focus on Two Promising Programs

NC410 COMBO

- Early Clinical Responses in Ovarian & CRC
- Additional Clinical Data Expected 2024

LNCB74

- Differentiated B7-H4 ADC
- Collaboration with LigaChem Biosciences
- IND 2024

$108 M - RUNWAY THROUGH 2H 2026

Advancing Our Prioritized Programs

PROGRAMS	TARGET	CELLS	DISCOVERY	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3	NEXT MILESTONE
NC410 COMBO (Pembro)	LAIR-2	Extracellular Matrix	Ovarian					Ph1b Data 2H 2024
			Colorectal (CRC)					Ph1b Data 2Q 2024 ASCO
LNCB74 (ADC) Co-development with LCB LigaChemBio	B7-H4	Tumor Cells	Breast, Ovarian, Endometrial					IND 4Q 2024

Ovarian CANCER

PH1B DATA 2H 2024

Colorectal CANCER

PH1B DATA 2Q 2024 ASCO

NC410 COMBO

BUILDING ON CLINICAL RESPONSES & BIOMARKER OBSERVATIONS

DIFFERENTIATED APPROACH

Remodeling tumor architecture

removing physical barrier and allowing

T cells to kill tumors

LARGE UNMET NEEDS

Ovarian cancer

Colorectal cancer

LAIR-2 FUSION

NextCure

NC410 COMBO

Addressing Unmet Needs for Non-Responders

DEEP EXPERTISE

Extracellular matrix collagen drives

tumor resistance

POTENTIALLY FIRST-IN-CLASS

Improved safety profile

Addresses tumor resistance

Leader in Understanding *LAIR & Extracellular Matrix (ECM)* Biology

frontiers in Immunology

Regulation of tumor immunity and immunotherapy by the tumor collagen extracellular matrix

eLife

Cancer immunotherapy by NC410, a LAIR-2 Fc protein blocking human LAIR-collagen interaction

frontiers in Immunology

Collagen Fragments Produced in Cancer Mediate T Cell Suppression Through Leukocyte-Associated Immunoglobulin-Like Receptor 1

sitc
Society for Immunotherapy of Cancer

A Phase 1b/2, open-label, safety, tolerability and efficacy study of NC410 plus pembrolizumab for participants with immune checkpoint inhibitor (ICI) refractory or MSS/MSI-low ICI naïve advanced or metastatic solid tumors

the extracellular matrix pharmacology congress

NC410 (LAIR-2-Fc Fusion Protein): Overcoming Clinical Limitations to Immunotherapy Through Targeting and Remodeling Tumor ECM

TRANSLATIONAL RESEARCH CONSORTIUM CANCER CENTERS

Targeting LAIR-1 abrogates neutrophil-mediated suppression of T cell responses in ovarian cancer microenvironment

JCI

Remodeling the tumor microenvironment via blockade of LAIR-1 and TGF-β signaling enables PD-L1-mediated tumor eradication

An Emerging Area of Interest for New Therapies

NC410 Combo

Overcoming tumor resistance by remodeling ECM to remove physical barrier and enhance T cell tumor killing

COMPLETED

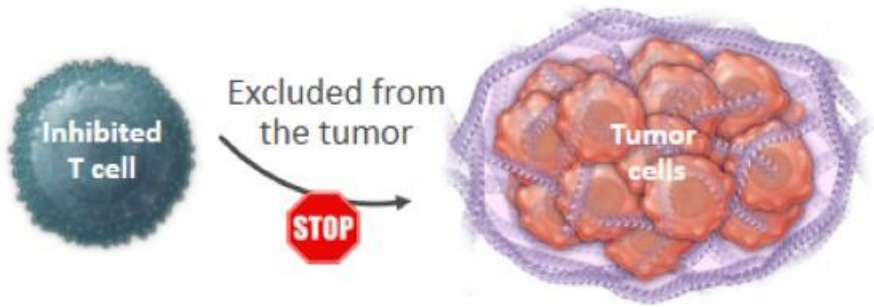
- ✓ Safe & well tolerated
- ✓ No dose limiting toxicities
- ✓ Evidence of clinical activity in ovarian & colorectal

ONGOING

- Expansion of ovarian & colorectal cohorts
- 2024 anticipated data (ovarian n=~25; CRC: n=~40)
- Planning for Phase 2

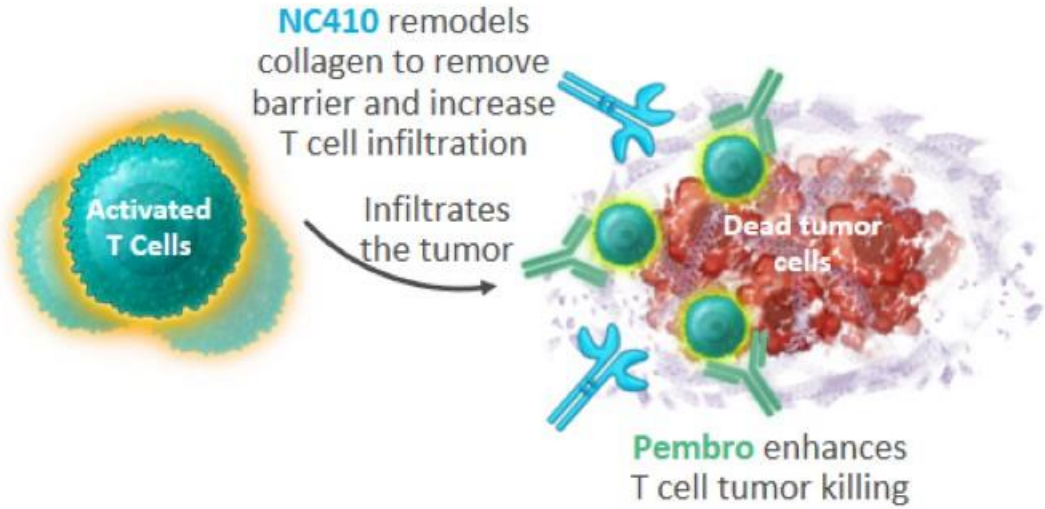
NC410 Combo: A Synergistic Approach to Breaking the Collagen Barrier and Enhancing Anti-Tumor Activity

COLLAGEN BUILDUP AND DENSITY LEAD TO RESISTANCE



Tumor cells proliferate and become resistant

ECM REMODELING LEADS TO GREATER ANTI-TUMOR FUNCTION



T cells kill the tumor

NC410 Combo Phase 1 Study

Ovarian CANCER

POPULATION

PD-(L)1 Naïve

DOSE & REGIMEN

100 mg NC410 Q2W 400 mg pembro Q6W	200 mg NC410 Q2W 400 mg pembro Q6W

FINDINGS TO DATE

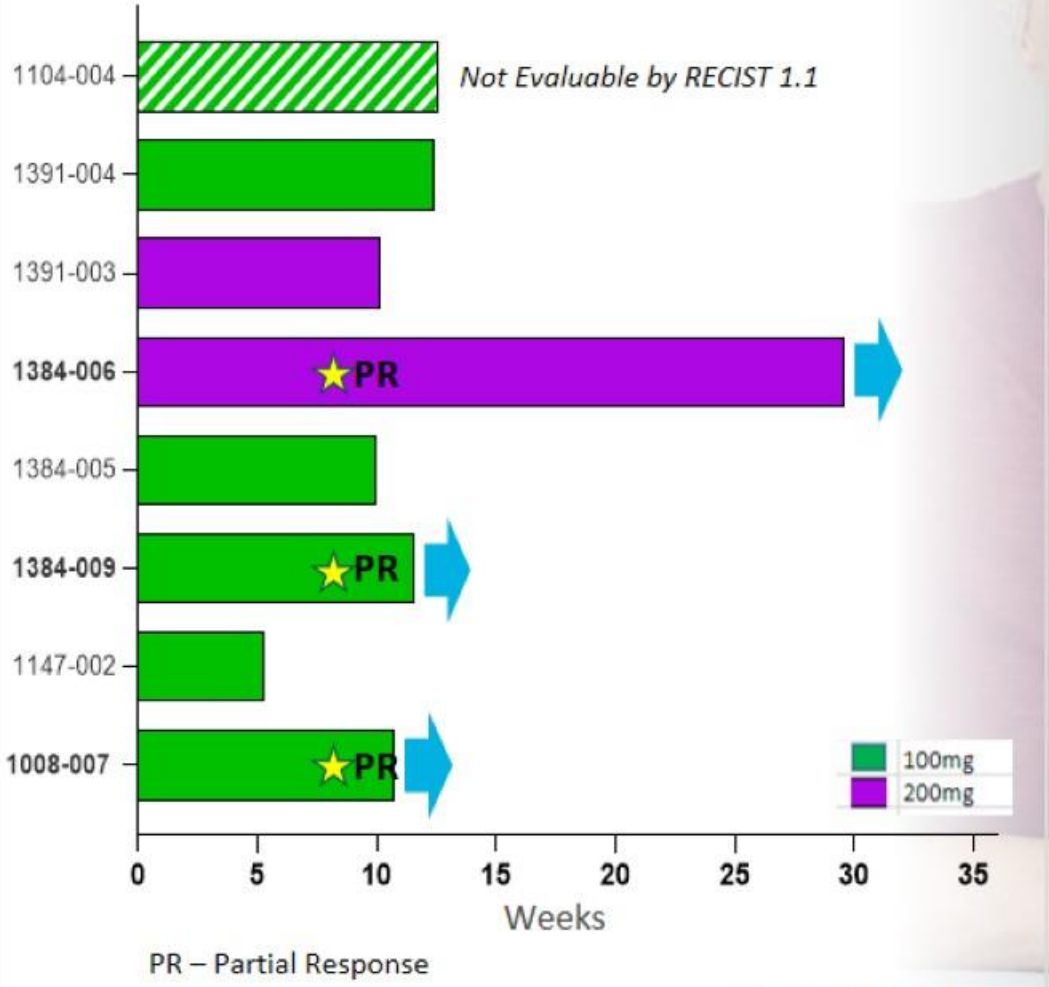
ORR 42.8% (3/7)
DCR 42.8% (3/7)
Biomarker evidence supporting mechanism of action

NEXT STEPS

Additional ~18 patients being added to confirm clinical activity

DATA EXPECTED

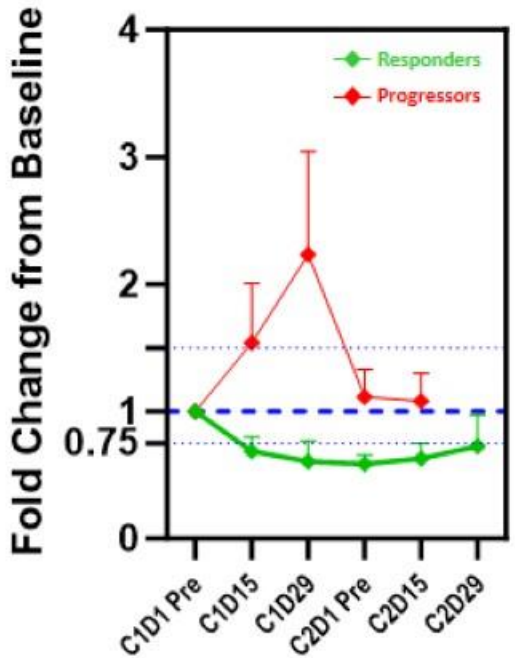
2H 2024



Evidence of Peripheral Immune Modulation and TME Infiltration in Responders from Ovarian Cohort

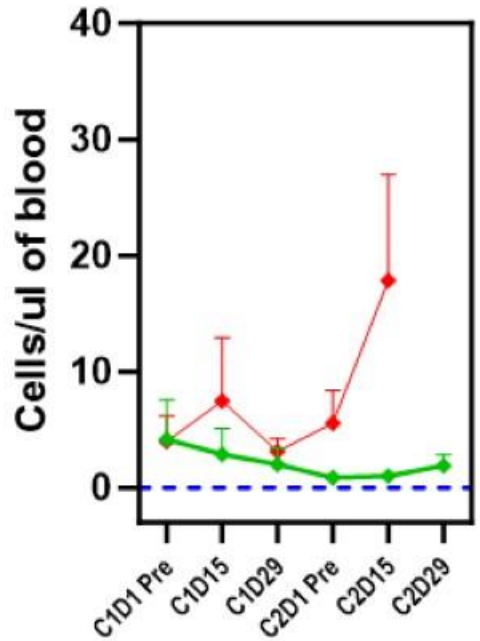
Decrease *Granzyme B-expressing CD8+ T cells*

- Remodels ECM allowing effector immune cell infiltration into TME from periphery



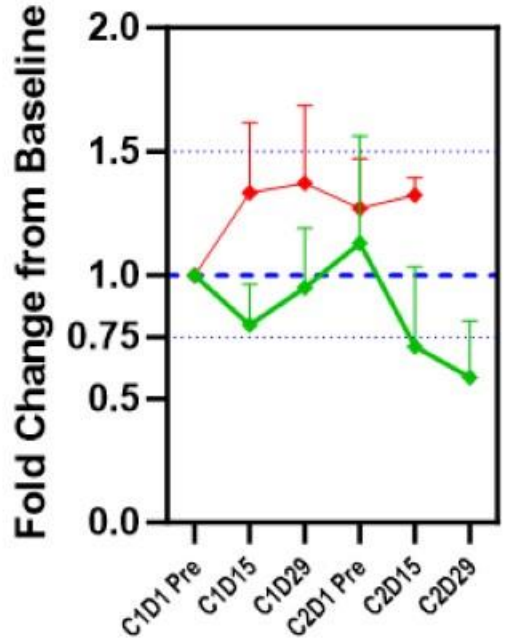
Decrease *suppressive MDSCs*

- Reduces suppressive effects
- Enhances activation of immune cells and anti-tumor activity



Decrease *CCR7+ CD4+ T cells*

- Induces chemokine guided migration of immune cells to TME



NC410 Combo Phase 1 Study

Colorectal CANCER

POPULATION

PD-(L)1 Naïve, MSS/MSI-L*, without Liver Metastasis

DOSE & REGIMEN

100 mg NC410 Q2W
400 mg pembro Q6W

FINDINGS TO DATE

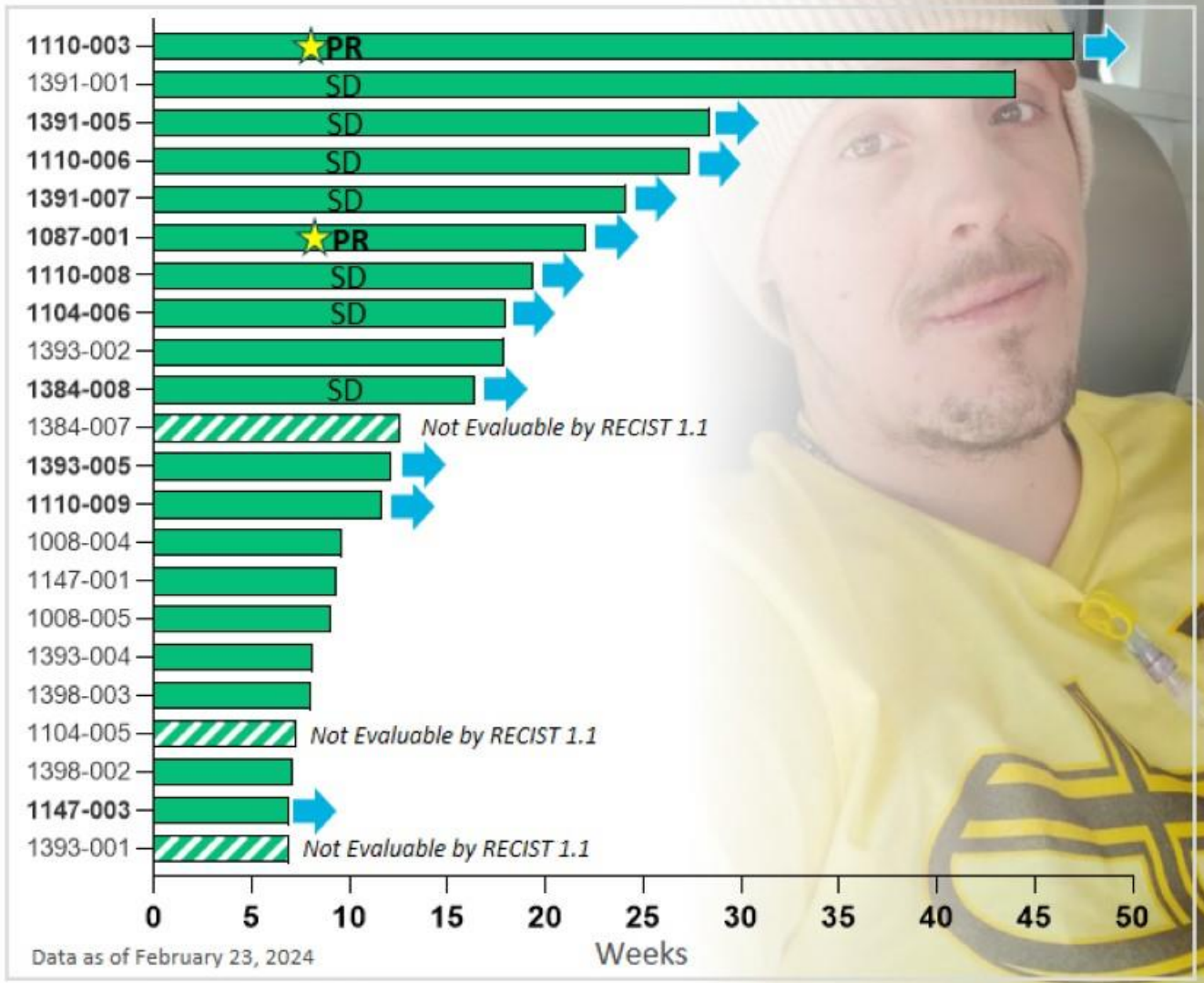
ORR 10.5% (2/19)
DCR 47.3% (9/19)
mPFS 8.1 months

NEXT STEPS

Follow additional ~20 patients to confirm clinical activity

DATA EXPECTED

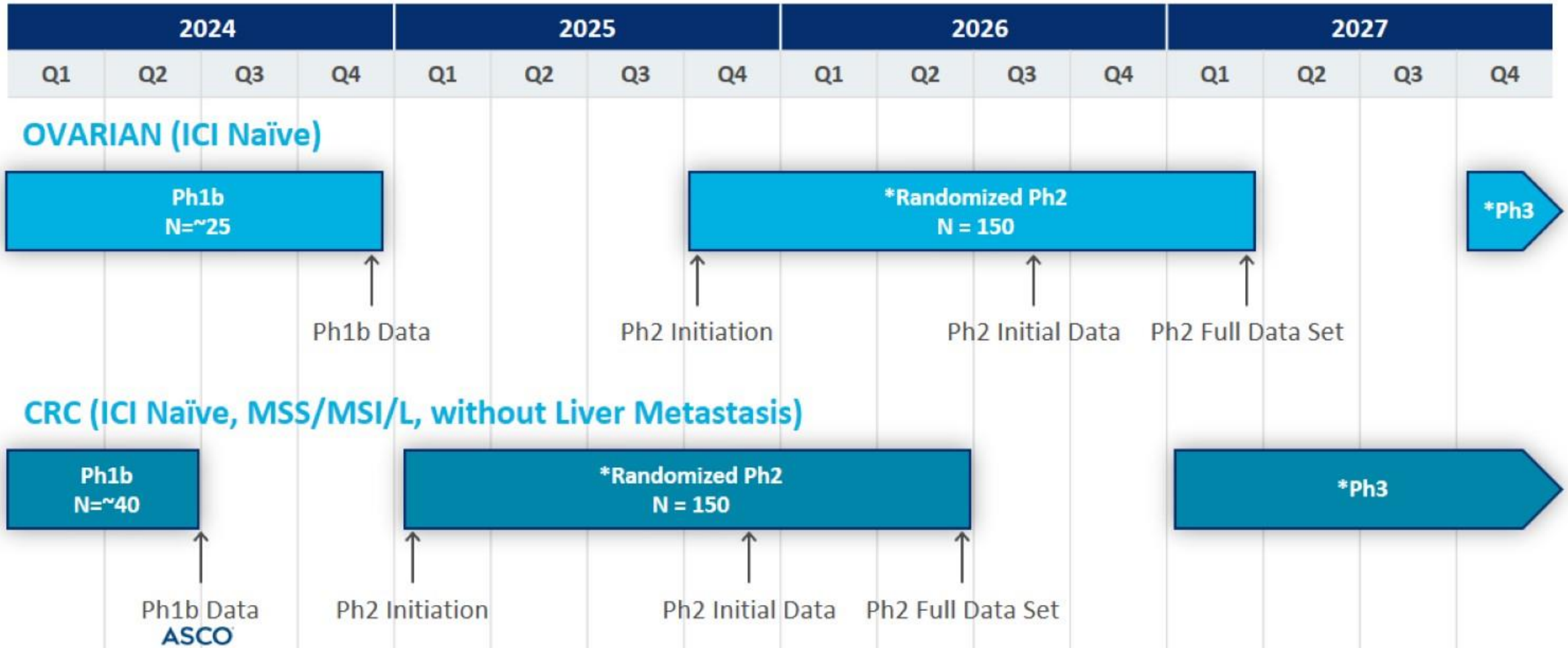
2Q 2024



*Microsatellite stable/microsatellite instability-low

PR – Partial Response
SD – Stable Disease ≥16 weeks

NC410 Combo Timeline and Potential Catalysts



*Pending partnership or financing

Opportunity
to Treat Large Unmet Needs

- EARLY CLINICAL ACTIVITY
- EXPANDING OVARIAN & CRC
- ADDITIONAL CLINICAL DATA 2024
- PLANNING FOR PH2

Breast CANCER | **Ovarian** CANCER | **Endometrial** CANCER

LNCB74

LEVERAGING OUR DEEP EXPERTISE IN B7-H4 AND COLLABORATION WITH LCB TO DEVELOP A DIFFERENTIATED THERAPEUTIC

IND 4Q 2024

NOVEL APPROACH

Unique antibody linker strategy

Co-development partnership with LCB

PATIENT SELECTION STRATEGY

CLIA validated IHC biomarker assays

B7-H4 ADC

NextCure

LNCB74

Differentiated ADC

DEEP EXPERTISE

Significant B7-H4 experience

LCB's substantial ADC know-how

THERAPEUTIC POSITIONING

Improved safety and efficacy

B7-H4 is the Next Target of Interest in Women's Cancer

FIERCE Biotech

NextCure, LegoChem* join big-league rivals in antibody-drug conjugate race

*Currently known as LigaChemBio

Journal of Clinical Oncology

Phase 1 study of SGN-B7H4V, a novel, investigational vedotin antibody–drug conjugate directed to B7-H4, in patients with advanced solid tumors (SGNB7H4V-001, trial in progress).

ANNALS OF ONCOLOGY

381O First-in-human/phase I trial of HS-20089, a B7-H4 ADC, in patients with advanced solid tumors

Journal of Clinical Oncology

XMT-1660: A phase 1b trial of a B7-H4 targeted antibody drug conjugate (ADC) in breast, endometrial, and ovarian cancers.

ApexOnco OncologyPipeline

Pfizer shuffles its deck post-Seagen

The group's B7-H4-targeting bispecific is out, in favour of Seagen's ADC.

AACR American Association for Cancer Research

Abstract 2947: Preclinical evaluation of a novel B7-H4 targeted antibody-drug conjugate AZD8205 as a single agent and in combination with novel PARP inhibitor and checkpoint blockade

FIERCE Biotech

In 2nd big deal of the day, GSK inks $1.4B pacy for Hansoh gynecology cancer asset

Deep Expertise in B7-H4

NextCure

- Extensive publications
- Expertise in expression
- Repertoire of models
- Top-tier KOL collaborative network
- Validated patient selection assay

+

LCB LigaChemBio

- Co-development partner since 2022
- Significant success advancing ADCs
- Differentiated linker technology

Option to Develop Additional Targets

LNCB74
On Track for an IND Year-End 2024

COMPLETED

- ✓ Potent pre-clinical activity *in vitro* and *in vivo*
- ✓ Pilot tox study – safe and tolerable
- ✓ Favorable pre-IND feedback from FDA

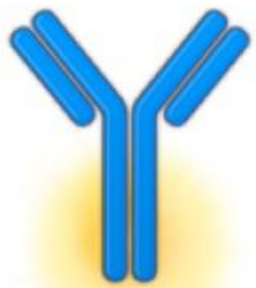
ONGOING

- Tox studies
- GMP manufacturing
- Planning for Ph1

LNCB74 Is an Anti-B7-H4 MMAE ADC

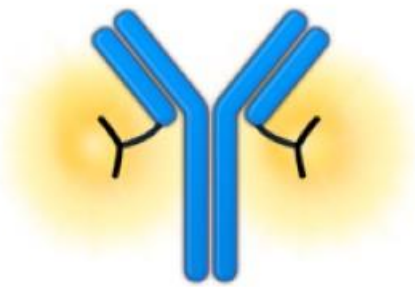
STRUCTURAL DIFFERENTIATION

Antibody



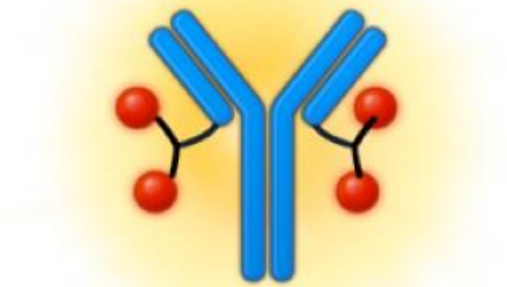
Fc Modification
Protects immune cells

Linker



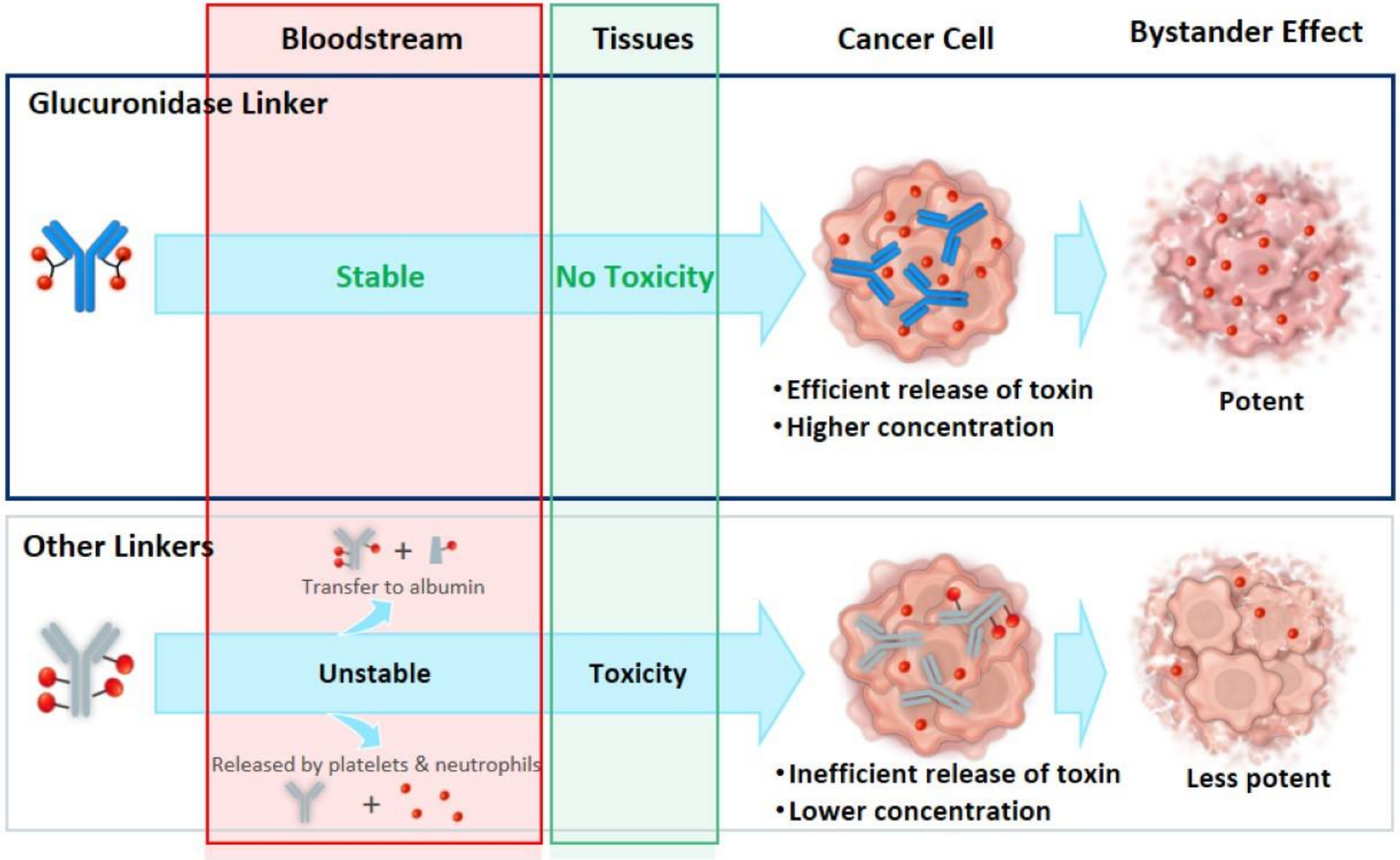
Tumor Selectivity
Glucuronidase cleavable linker provides greater selectivity and specificity

Payload



MMAE DAR 4
Improves safety and control over how the payload is dispersed

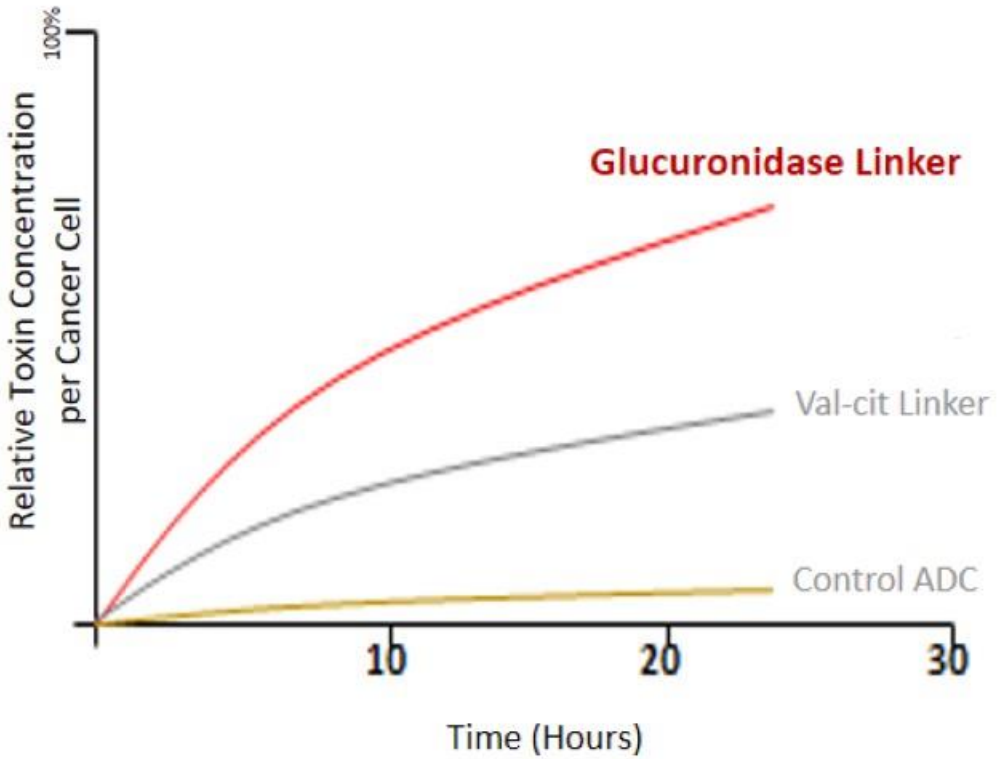
Differentiating Glucuronidase & Other Linkers



Linker	Glucuronidase cleavable
Payload	Tubulin inhibitor
Conjugation	Site Specific
DAR	4

Linker	Protease or esterase cleavable
Payload	Tubulin or Topo-1 inhibitors
Conjugation	Site Specific or cysteine
DAR	~4, 6, 8

Key Differentiating Features of Glucuronidase Linkers



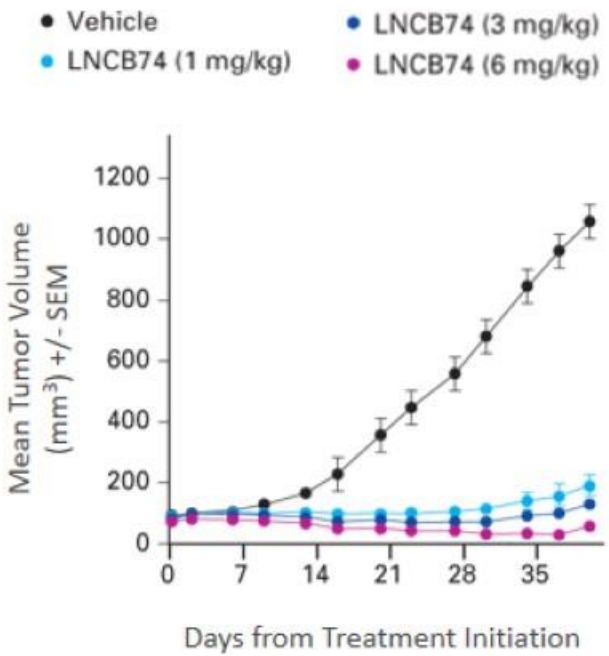
Glucuronidase Linker	Val-Cit Linker
☑ Site specific attachment to mAb	☐ Non-specific attachment to mAb
☑ Highly stable linkage	☐ Unstable linkage – Prone to transferring to albumin – Increases toxicity
☑ Specifically cleaved in cancer cells	☐ Susceptible to cleavage by platelets and neutrophils, increasing toxicity
☑ Efficient release of payload	☐ Less efficient release of payload
☑ Higher concentration of toxin per cancer cell	☐ Lower concentration of toxin per cancer cell

- Improved therapeutic index
- Higher efficacy
- Lower toxicity
- Less frequent dosing

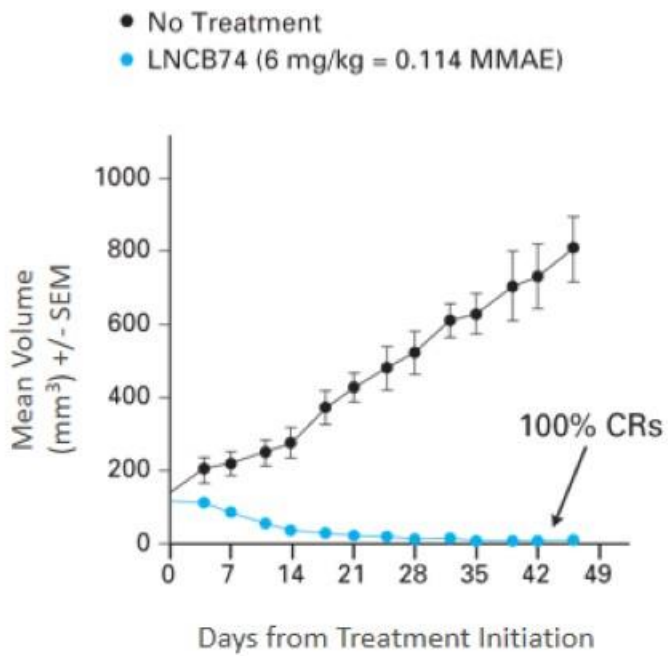
LNCB74 Shows Potent Anti-Tumor Activity in CDX and PDX Models

CDX

BREAST (ZR-75-1)

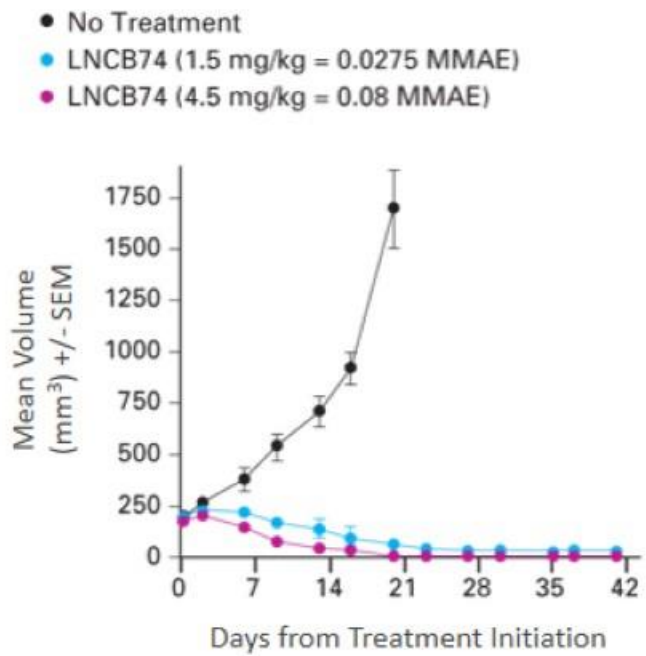


OVARIAN (OVCAR-3-B7-H4-OE)



PDX

TNBC (CTG-0012)



Dosing	Q7D x 3	Single dose	1.5 mg/kg: Q7D x 3 4.5 mg/kg: single dose

B7-H4 is a Validated ADC Target

Key Features	SGN-B7H4V (Seagen / Pfizer)	HS-20089 (HANSOH PHARMA, Partnership with GSK)	LNCB74 (NextCure / LCB LigaChemBio)
ADC Design	• B7-H4 mAb • Val-Cit cleavable linker • MMAE • DAR ~4	• B7-H4 mAb • Protease cleavable linker • Exatecan (TOPO1 inhibitor) • DAR 6	• B7-H4 mAb • Glucuronidase cleavable linker • MMAE • DAR 4
DLT	1.25 (N=1) or 1.5 mg/kg (N=2)	7.2 mg/kg (N=2)	Safe and tolerable up to 10 mg/kg*
Common AEs	Neutropenia, peripheral sensory neuropathy, nausea, fatigue, anemia, dyspnea, hypotension, and pneumonia	Leukopenia, neutropenia, nausea, anemia, vomiting, fatigue, thrombocytopenia, increased ALT and AST, anorexia, and hyponatremia	No major toxicity observed
RESPONSES	• Breast: 7 PR (N=25) • Ovarian: 2 PR (N=15) • Endometrial: 1 CR (N=16)	• TNBC: 6 PR (N=16) • Ovarian: 2 PR (N=3)	• IND 4Q 2024
Data Source	ESMO 2023	ESMO 2023	AACR 2024

*Cyno tox study

Preclinical Development of LNCB74 is on Track

TOX STUDY	
Species	Cynomolgus
Dose Range	4, 7 & 10 mg/kg Q3W, i.v.
Evaluation	Toxicology profiling, pathology, hematology, immunotoxicology
Goal	Define starting dose

GMP MANUFACTURING	
☑	Master cell bank generated
☑	Process development complete
☑	Antibody being manufactured
☐	Drug conjugation

LNCB74 Ph1 Monotherapy Study Plans

Breast CANCER

Ovarian CANCER

Endometrial CANCER

DOSE ESCALATION

- 5 dose cohorts
- Regimen Q3W
- N=15-45 subjects

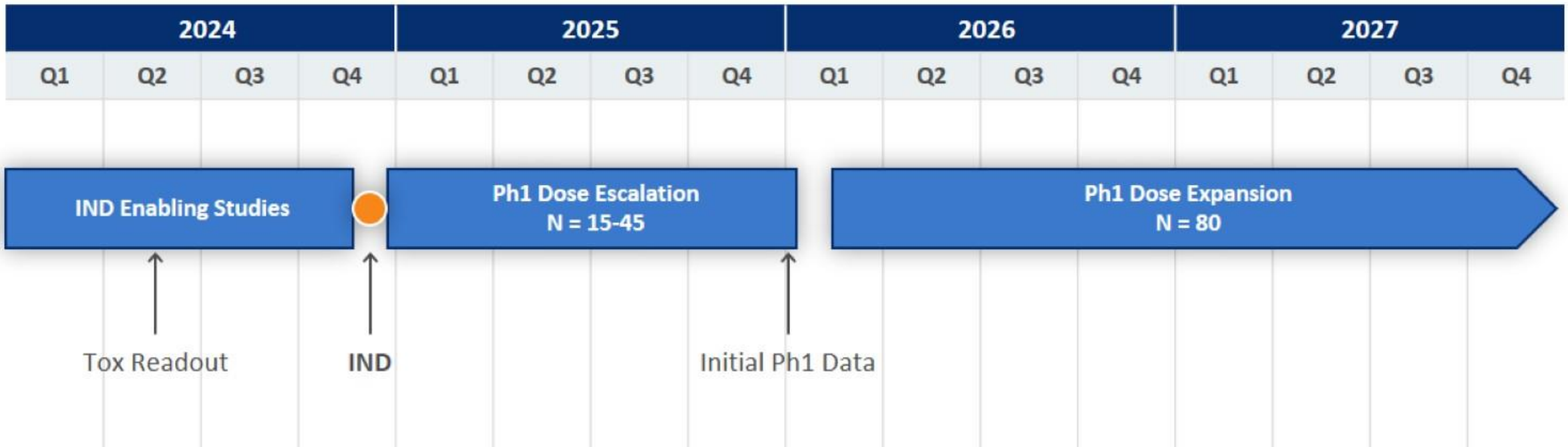
Readout: Scans every 6 weeks
Endpoint: Safety

DOSE EXPANSION

- 2 dose cohorts
- 2 tumor types
- N=80 subjects
- Pre-treatment & on study biopsies

Readouts: Scans every 6 weeks
Endpoints: Safety and ORR

LNCB74 Timeline and Potential Catalysts



Opportunity
to Develop Differentiated B7-H4 ADC Therapeutic

B7-H4 ADC

IND	PH1 INITIATION

Programs Available for Partnering

PROGRAMS	TARGET	CELLS	DISCOVERY	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3	NEXT MILESTONE
NC525	LAIR-1	Leukemia	**Acute Myeloid Leukemia**					**Ph1a Data 4Q 2024**
NC605	S15	Osteoclasts	**Osteogenesis Imperfecta**					**Tox Studies**
NC181	APOE4	Microglia & Neurons	**Alzheimer's Disease**					**Master Cell Bank**
FIND-ADC	New Targets	Tumor Cells	**Oncology**					**Lead Selection**

Anticipated 2024 Milestones

	Q1	Q2	Q3	Q4
NC410 Combo Ovarian			Ph1b Data	
CRC		Ph1b Data ASCO		
LNCB74				IND Filing

NextCure

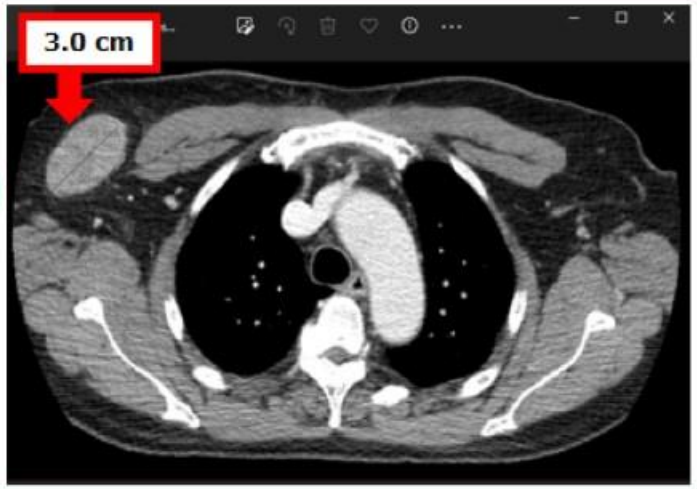
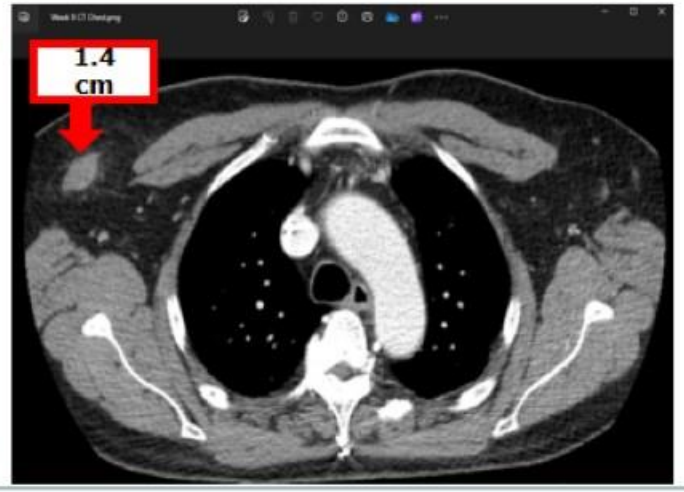
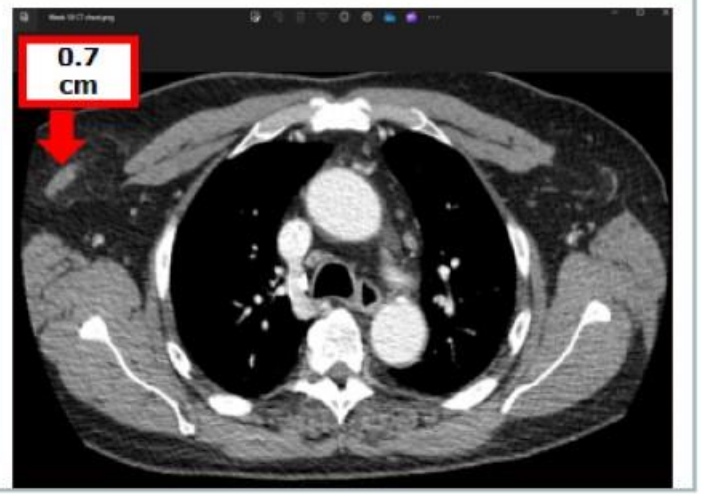
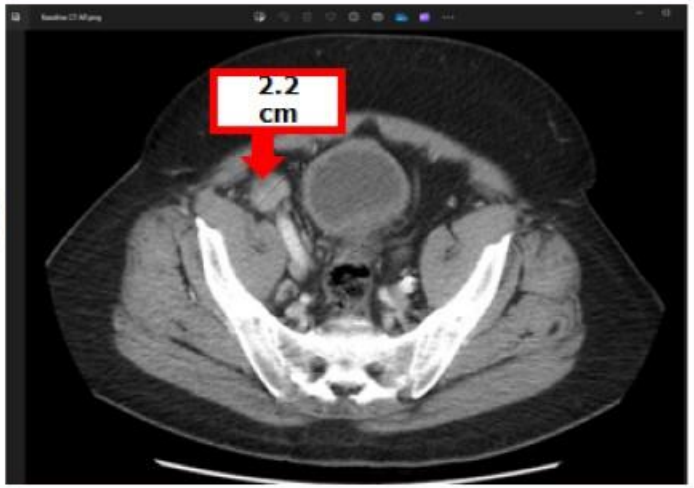
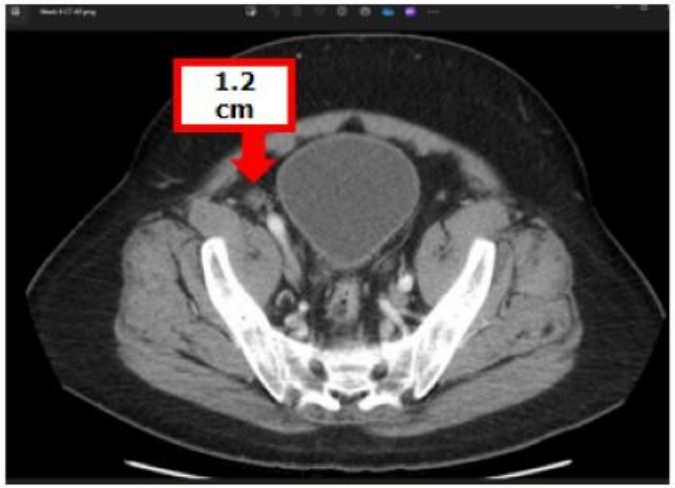
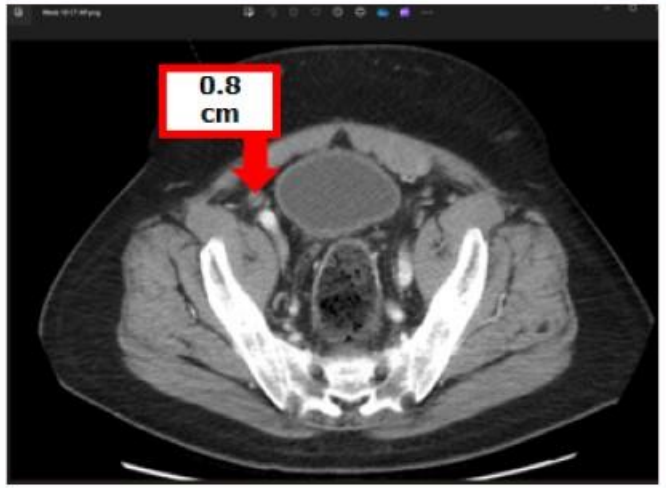
Advancing Innovative Medicines for Cancer

Differentiated Programs | ADCs | Treatments for Non-Responders

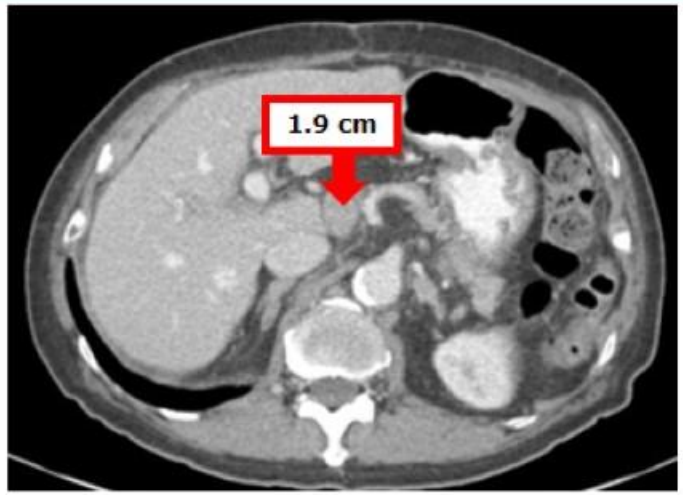
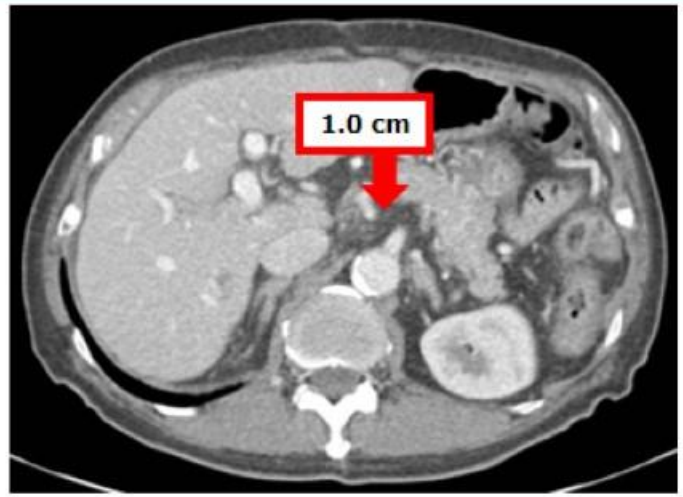
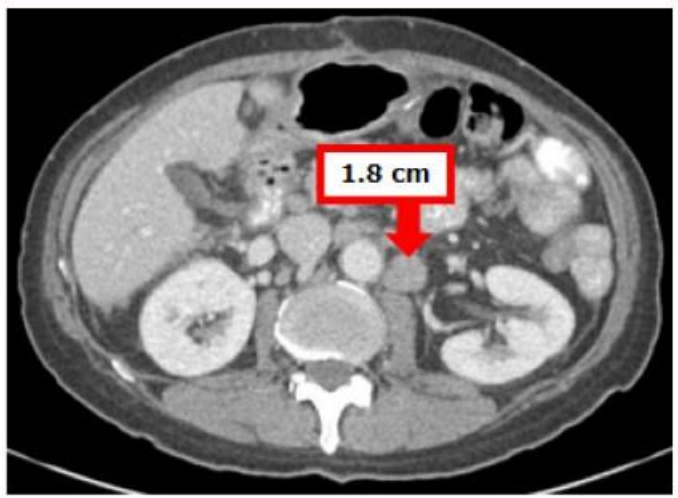
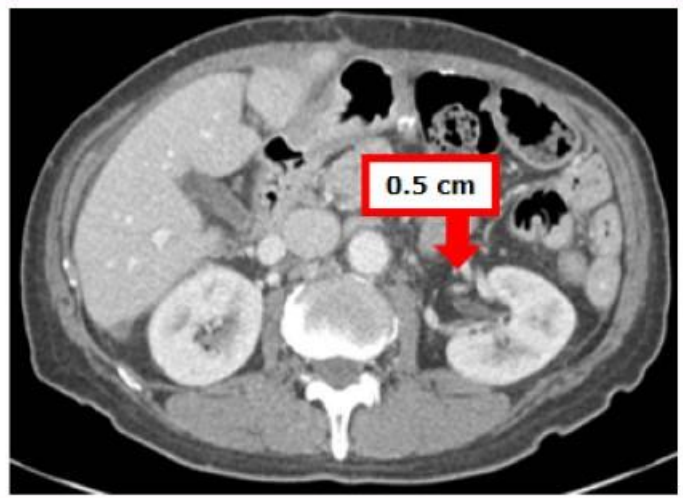
NextCure

APPENDIX

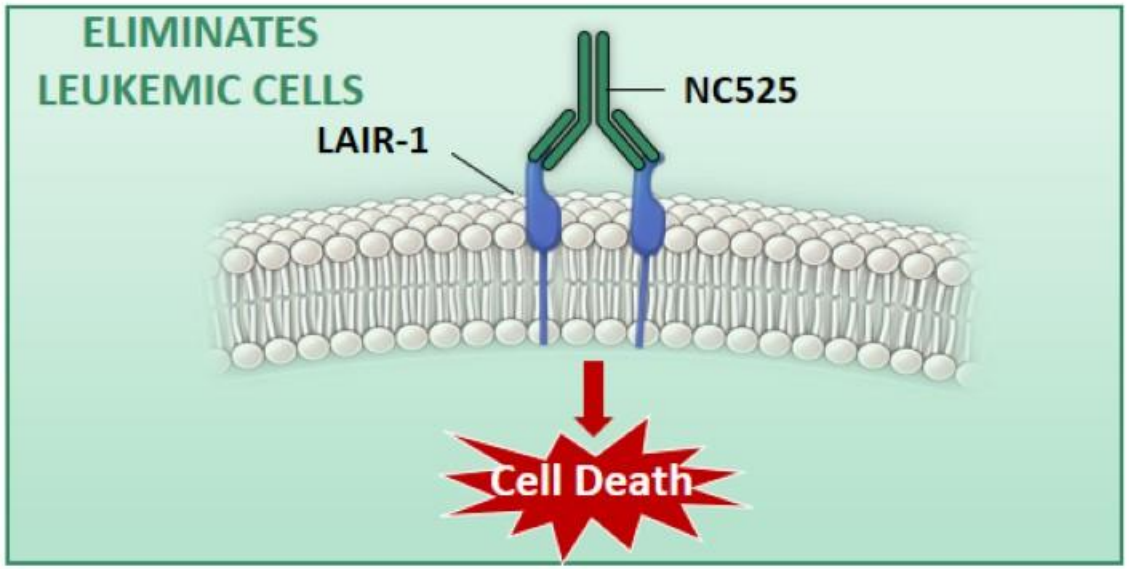
1087-001 CRC: Partial Response
71% Reduction in Sum of Target Lesions

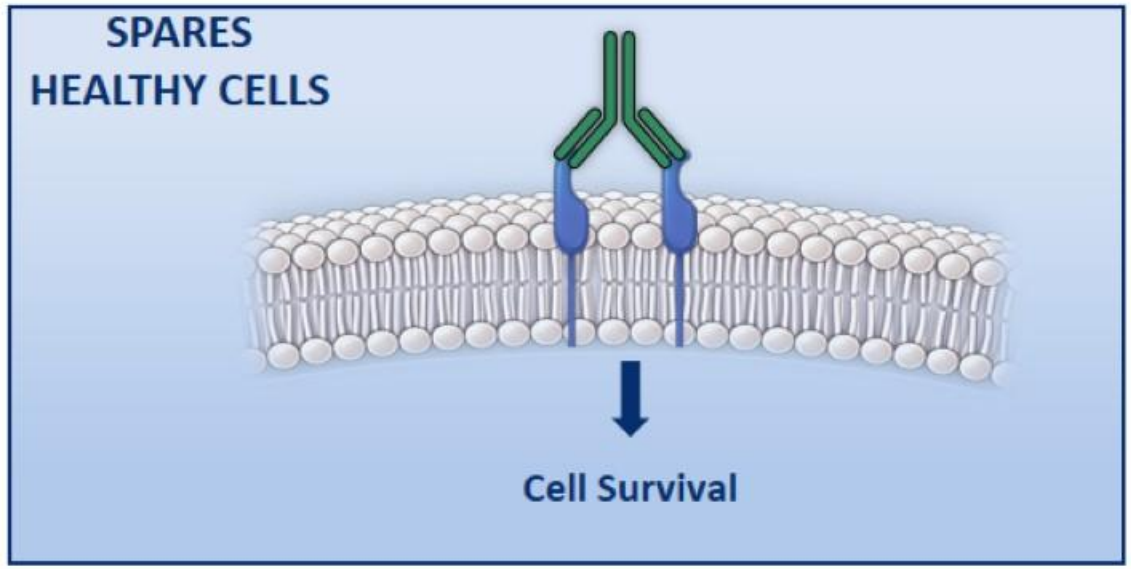
	BASELINE – 9.15.2023	WEEK 9 – 11.20.2023	WEEK 18 – 1.19.2024
TARGET LESION 1 Right Axillary lymph node			
TARGET LESION 2 Right Pelvic lymph node			

1110-003 CRC: Partial Response
59% Reduction in Sum of Target Lesions

	BASELINE – 4.8.2023	WEEK 9 – 6.20.2023
TARGET LESION 1 Gastrohepatic lymph node		
TARGET LESION 2 Paraaortic lymph node		

NC525
LAIR-1 MAB



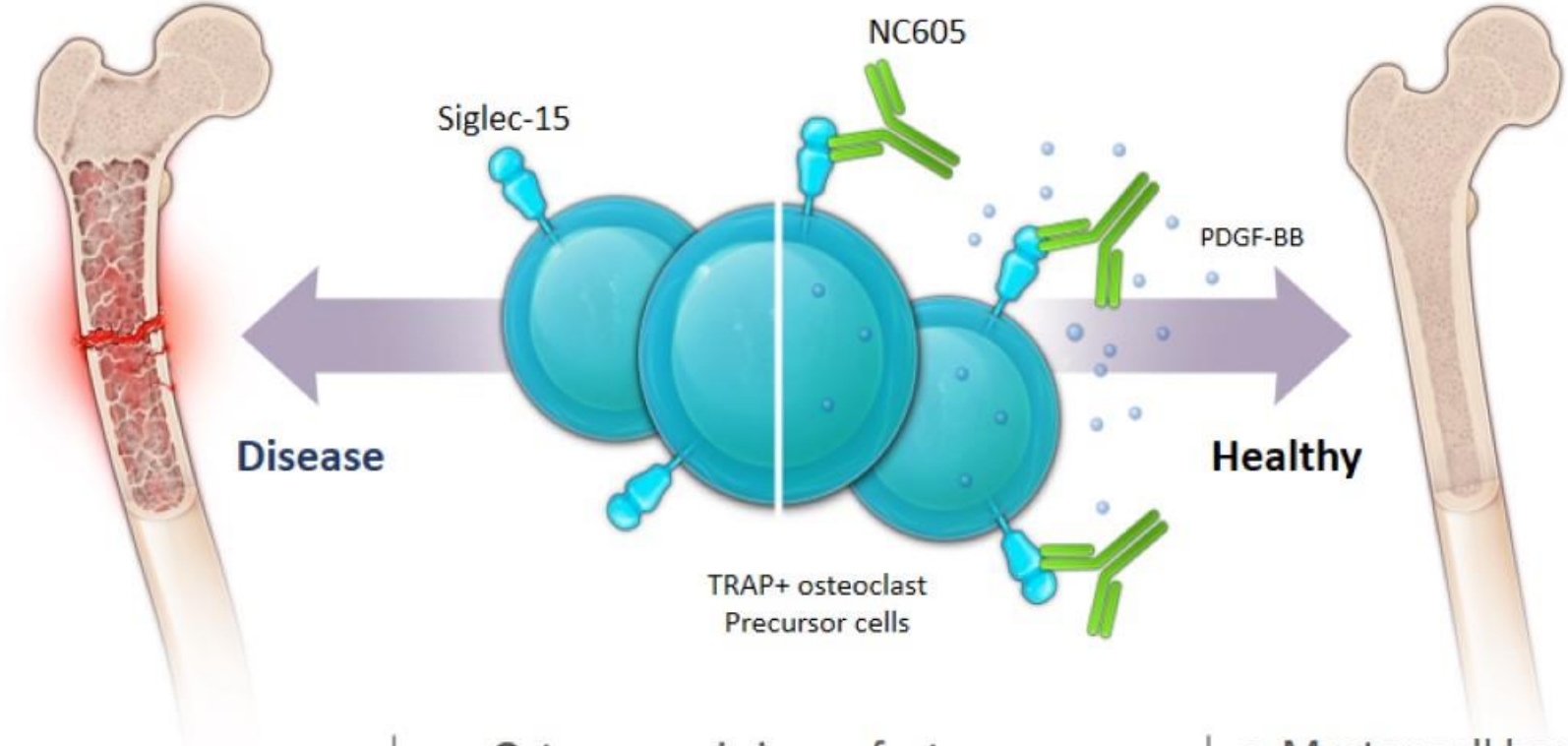


- LAIR-1 is essential for AML development and cell survival
- Data defining MOA recently published (Lovewell RR et al., J Clin Invest 2023)

- Leukemia (AML)
- High-risk myelodyplastic syndrome
- Chronic myelomonocytic leukemia

- Ph1 dose escalation study ongoing
- Phase 1a data 4Q 2024
- Currently seeking partner

NC605
SIGLEC-15 MAB

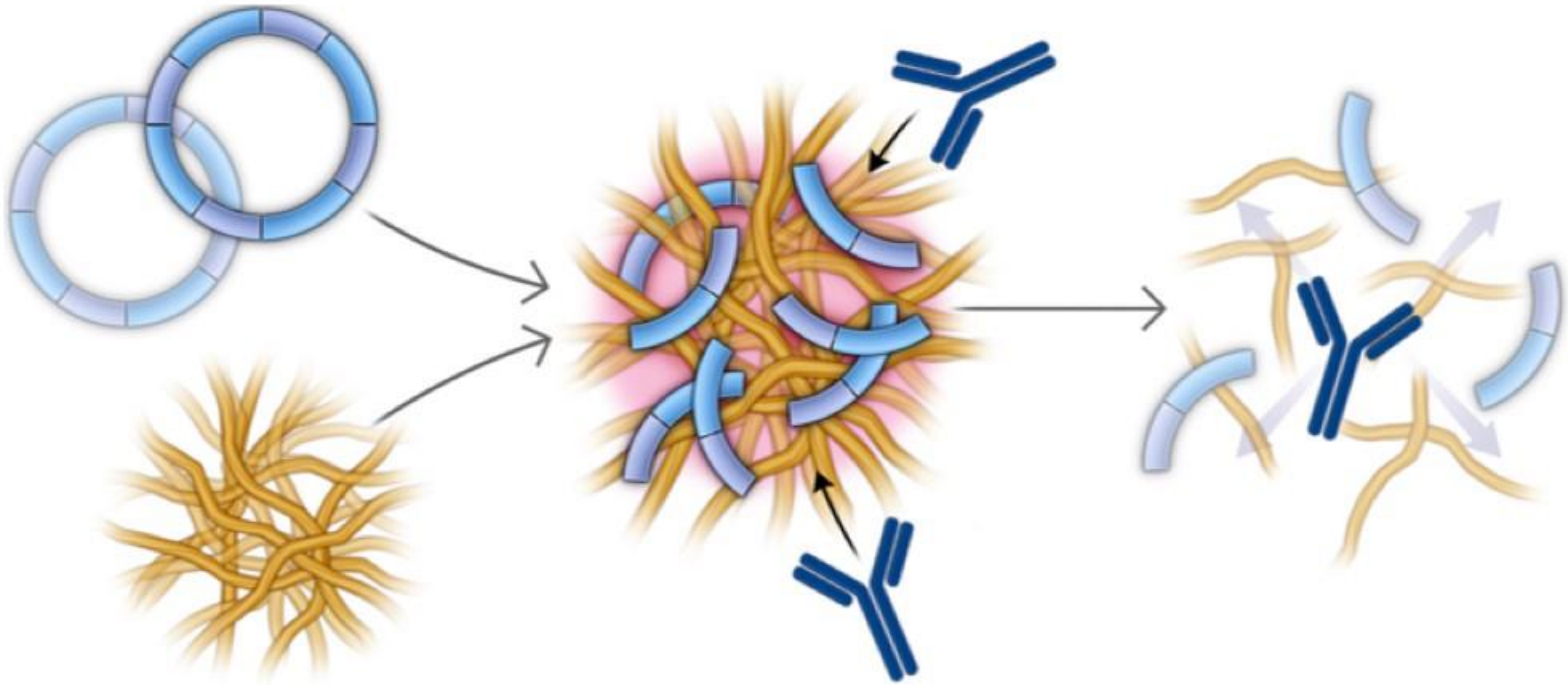


- Prevents bone loss
- Promotes bone formation
- Decreases fractures

- Osteogenesis imperfecta
- Osteoporosis
- Non-union fracture

- Master cell bank available
- Initiating tox studies
- Currently seeking partner

NC181
APOE4 MAB



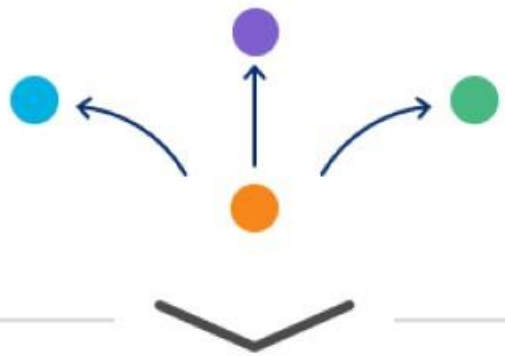
- Reduces amyloid plaques
- Suppresses neuroinflammation
- Improves cerebrovascular function

- Alzheimer's disease
- Cerebral amyloid angiopathy (CAA)
- Parkinson's disease

- Master cell bank being generated
- Currently seeking partner

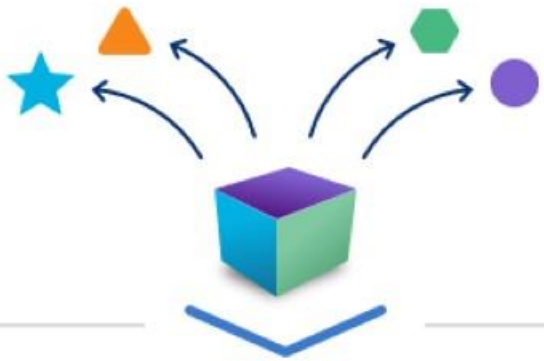
FIND-ADC™ Technology Uniquely Unlocks New Targets for ADCs

TRADITIONAL DISCOVERY



Incremental payload and linker improvements to the **same pool of existing targets**
(HER2, EGFR, FRα, TROP-2,CLDN18.2, BCMA, CD19)

FIND-ADC



Identifying new targets for ADCs that unlock novel products and value