JUNE 17, 2021

NextCure

Next-Generation Immunomedicines

The JMP Securities Life Sciences Conference

Forward-Looking Statements

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. Words such as “may,” “will,” “expect,” “anticipate,” “estimate,” “intend,” “next,” “near-term,” “future” and similar expressions, as well as other words and expressions referencing future events, conditions, or circumstances, are intended to identify forward-looking statements. Examples of forward-looking statements in this presentation may include, among others, statements regarding: (i) the timing, progress and results of our preclinical and clinical trials; (ii) the evaluation of biomarkers; (iii) the impact of the COVID-19 pandemic on the initiation, progress or expected timing of those trials and the timing of related data, as well as our efforts to adjust trial-related activities to address the impact of the COVID-19 pandemic; (iv) the timing or likelihood of regulatory filings for our product candidates; (v) our manufacturing capabilities and strategy; (vi) the potential benefits and activity of our product candidates; (vii) our expectations regarding the nature of the biological pathways we are studying; (viii) our expectations regarding our FIND-IO platform; and (ix) the potential benefits of our relationships with Dr. Lieping Chen and Yale University.

Various factors could cause actual results to differ materially from those projected in any forward-looking statement. Such risks and uncertainties include, among others: the impact of the ongoing COVID-19 pandemic on our business, including our clinical trials, third parties on which we rely and our operations; our limited operating history and no products approved for commercial sale; our history of significant losses; our need to obtain additional financing; risks related to clinical development, marketing approval and commercialization; and the unproven approach to the discovery and development of product candidates based on our FIND-IO platform. No forward-looking statement is a guarantee of future results or events, and one should avoid placing undue reliance on such statements. For further discussion of these and other factors that could affect the outcome of our forward-looking statements, see our filings with the Securities and Exchange Commission, including in "Risk Factors" and "Special Note Regarding Forward-Looking Statements" in the Risk Factors section and throughout NextCure’s Form 10-K filed with the SEC on May 6, 2021. Except as otherwise indicated, this presentation speaks as of the date indicated herein. Except as required by law, we assume no obligation to update any forward-looking statements, or to update the reasons why actual results could differ materially from those anticipated in the forward-looking statements, even if new information becomes available in the future. The information in this presentation is not complete and may be changed.

NextCure Highlights

PIPELINE

- NC318 (S15): Phase 2
- NC410 (LAIR-1): Phase 1
- NC762 (B7-H4): IND

PLATFORM

- FIND-IO functional screening discovery engine
- Validating novel cancer targets
- New MOAs

PEOPLE

- Fully integrated: GMP manufacturing facility + team
- Experienced team: CMO – Dr. Han Myint
- Founder/SAB Head: Dr. Lieping Chen (discovered PD-L1)

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Product Development Pipeline

PROGRAMS	CELLS	DISCOVERY	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3	NEXT MILESTONE	WORLDWIDE RIGHTS
PRODUCT CANDIDATES								
NC318 (S15) Monotherapy	Tumors and macrophages	ONCOLOGY					Report update 4Q 2021	NextCure
NC318 (S15) Anti-PD-1 Combo*	Tumors and macrophages	ONCOLOGY					Initial data 1H 2022	NextCure
NC410 (LAIR-1)	Dendritic and T cells	ONCOLOGY					Initial data 2H 2021	NextCure
NC762 (B7-H4)	Tumors	ONCOLOGY					Start Phase 1 2Q 2021	NextCure
DISCOVERY AND RESEARCH PROGRAMS								
Multiple Programs	Multiple cell types						IND filing in 2022	NextCure

*Investigator-initiated (IIT) trial (Yale University)

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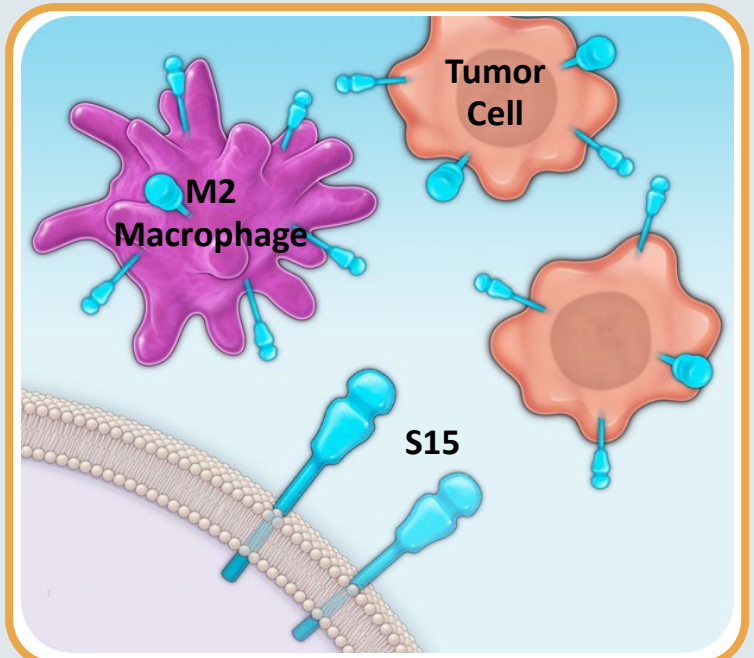
NC318

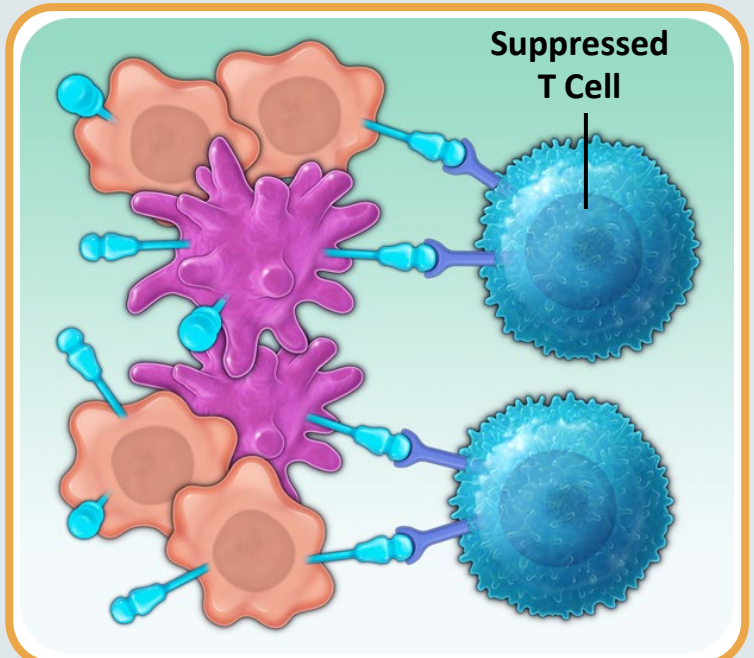
Humanized Siglec-15 (S15) Monoclonal Antibody

Phase 1/2 CLINICAL TRIAL

BIOLOGY



MOA



UPDATE

- CLIA validated IHC assay for patient selection
- Yale investigator-initiated trial
  - NSCLC
  - Monotherapy
  - Pembro combo
- Applying lessons learnt to other programs

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NC318 Phase 1/2 Monotherapy Trial Status as of March 4, 2021

PHASE 1

- Dose escalation
- 49 patients
- 15 tumor types
- All comers regardless of PD-L1 or S15 expression status
- 1 confirmed CR (118+ weeks)
- 1 confirmed PR (92+ weeks)

PHASE 2

- 400 mg every 2 weeks
- Biopsies required
- Confirmed PRs
  - H&N (40 weeks)
  - TNBC (21+ weeks)
- S15+ patient selection

The Angeles Clinic and Research Institute, A Cedars-Sinai Affiliate
next Oncology
NYU Langone Medical Center
John Theurer Cancer Center at Hackensack University Medical Center
Yale University

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Yale Investigator-Initiated Phase 2 Trial in Non-Small Cell Lung Cancer

PRINCIPAL INVESTIGATORS

- Roy Herbst, MD, PhD
- Scott Gettinger, MD

MONO

- S15+ patients
- PD-1 refractory

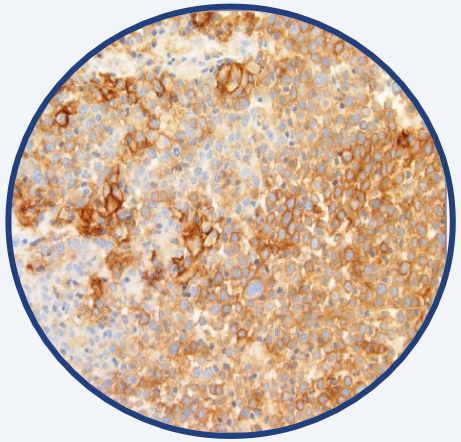
COMBO

- Pembrolizumab
- 2 arms
  - PD-1 refractory
  - PD-1 naïve

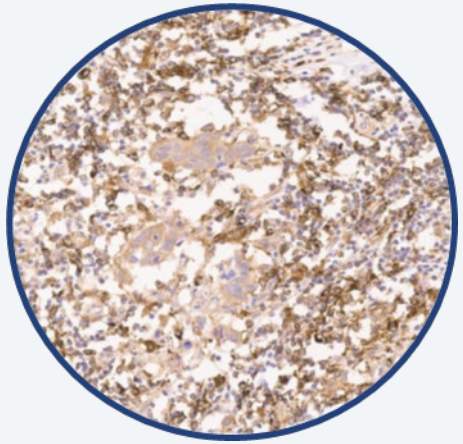
NCT04699123

Selecting S15 Positive Patients for NC318 Study

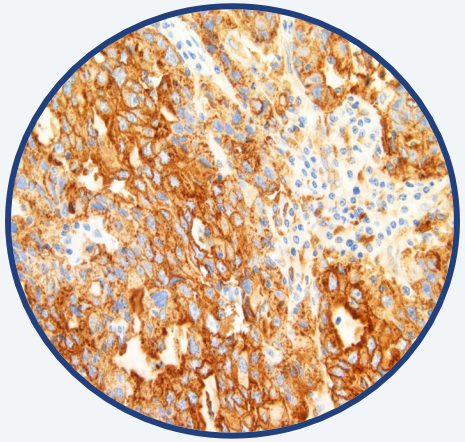
Head & Neck



Breast



NSCLC



- **Tissue Biopsies**
- **CLIA Validated Assay**
- **Enrich S15+ Patients**

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NC410

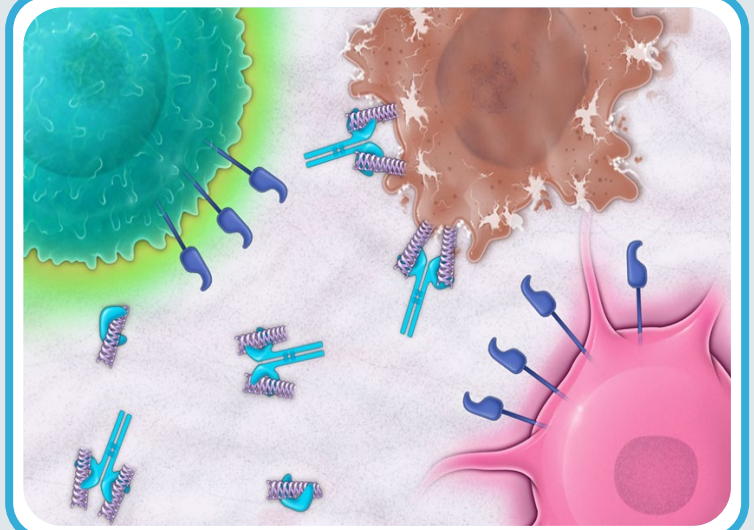
Decoy Human Fusion Protein Targeting the TME

Phase 1/2 CLINICAL TRIAL

BIOLOGY

- Dendritic cells and T cells
- Advanced or metastatic cancers
  - NSCLC
  - Ovarian cancer
  - Pancreatic cancer

MOA



UPDATE

- Extracellular matrix remodeling
- Enhances T cell infiltration and tumor killing
- Synergistic combinations
- ASCO 2021 poster

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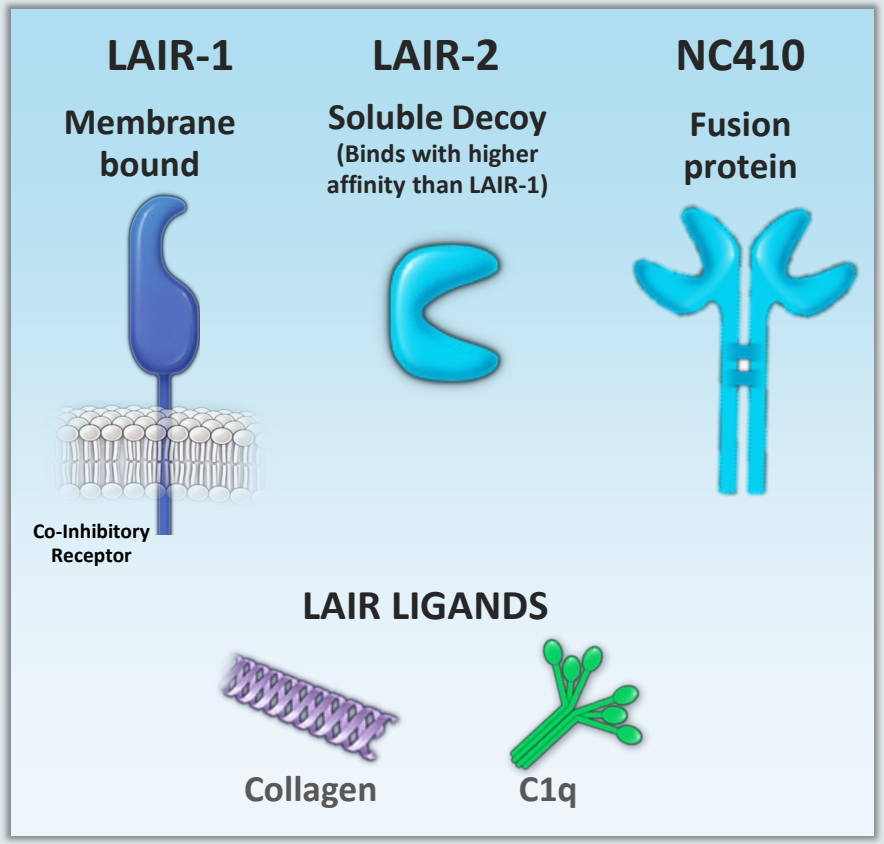
LAIR-1 & LAIR-2 Functional Relationship

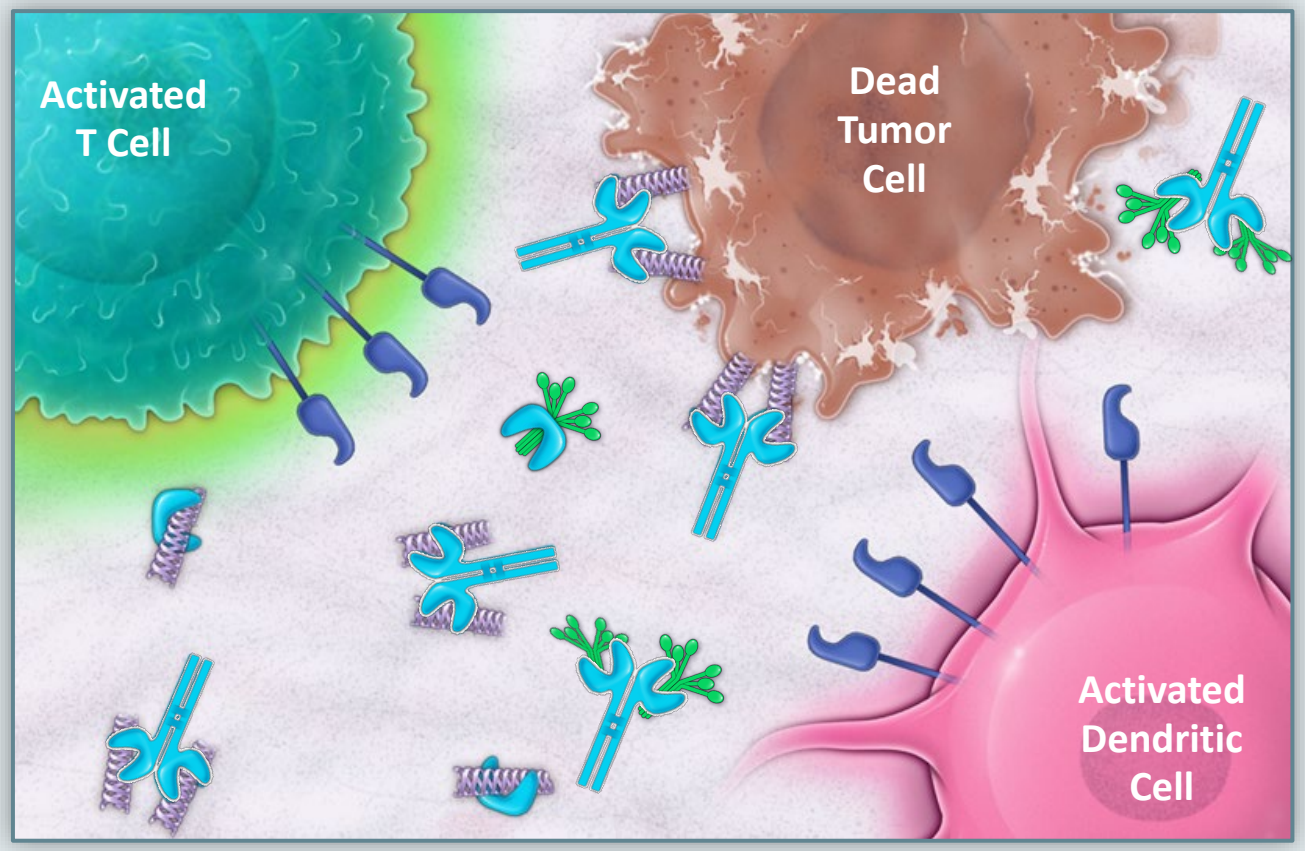
LAIR & LIGANDS

LAIR-1 and LAIR-2 Bind Collagen and C1q



NC410 IS A FUSION PROTEIN OF LAIR-2

Decoy for LAIR-1 and promotes T cell function and DC activation



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NC410 Phase 1 Portion of Phase 1/2 First-in-Human Trial

DESIGN

- Dose-escalation
- Safety & tolerability

TUMOR TYPES

Advanced or metastatic solid tumors

- NSCLC
- Ovarian cancer
- Pancreatic cancer

DELIVERABLES

Initial Phase 1 data
2H 2021

NIH NATIONAL CANCER INSTITUTE Center for Cancer Research

John Theurer Cancer Center at Hackensack University Medical Center

THE UNIVERSITY OF TEXAS MD Anderson Cancer Center

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NC762

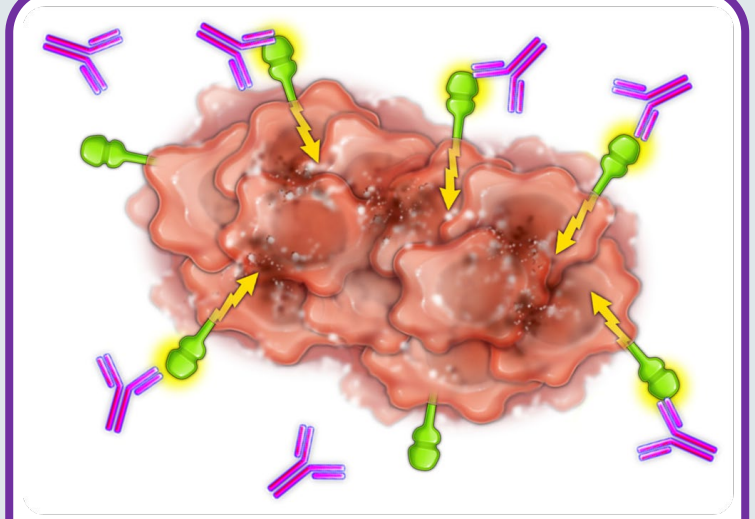
Humanized B7-H4 Monoclonal Antibody

Phase 1/2 CLINICAL TRIAL

BIOLOGY

- Inhibits tumor cell growth and is not dependent on T cells
- NK cells enhance anti-tumor activity
- Advanced or metastatic cancers
  - NSCLC
  - Breast cancer
  - Ovarian cancer

MOA



B7-H4

NC762 (B7-H4 mAb)

UPDATE

- IND filed
- Unique mechanism of action
- IHC assay for patient selection
- Biomarkers
- Phase 1 2Q 2021
- AACR 2021 poster

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GMP Manufacturing Facility: Added Additional Capacity

2,000L Capacity

- **Speed** — Use of a CMO adds ~8 months to timelines
- **Flexibility** — Prioritization and scheduling
- **Efficiency** — Operational and capital efficiency
- **Quality** — Controlling quality with experienced team

Utilized to Produce Clinical Material for All Lead Programs

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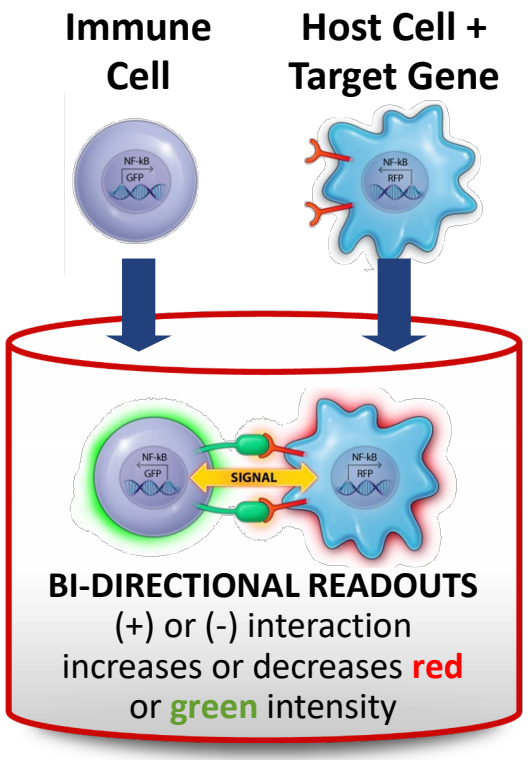
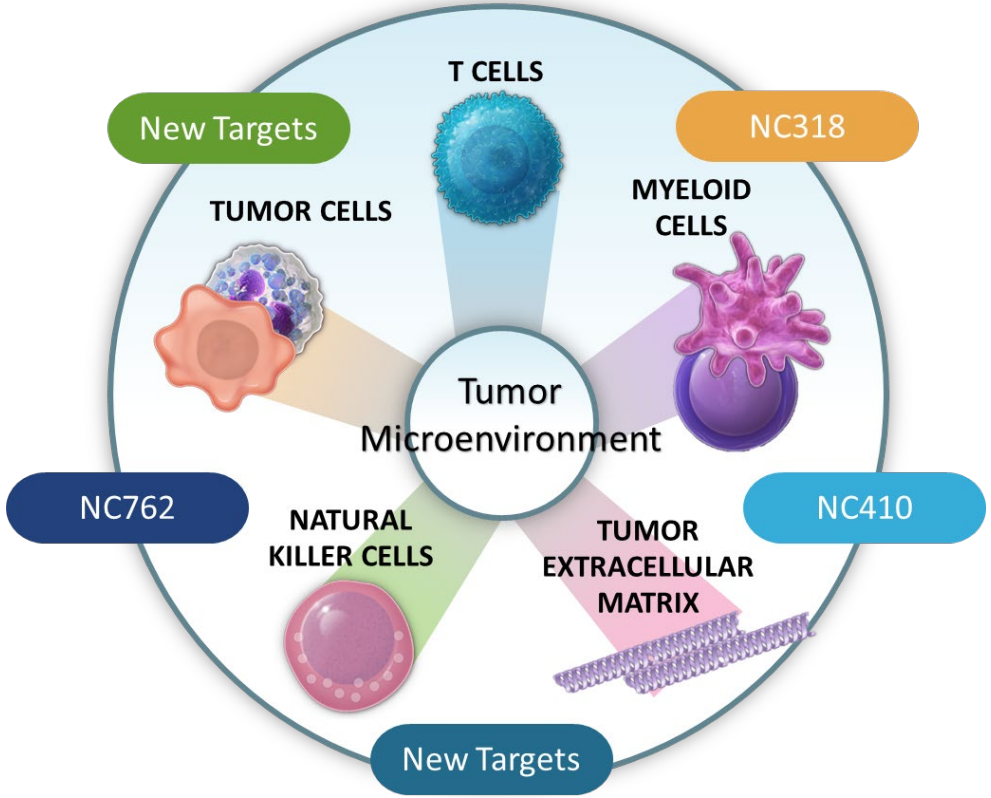
FIND-IO: Finding Solutions with a Powerful Discovery Engine

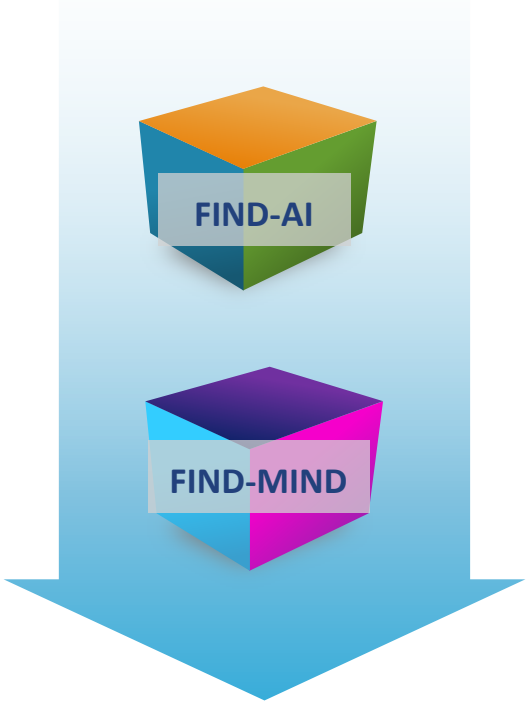
FUNCTIONAL READOUTS



FUTURE PIPELINE



DIVERSIFICATION



NOVEL TARGETS FOR IMMUNOMEDICINES

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Anticipated Near-Term Milestones

Cash Position: $268.2M Runway: 2H 2023

PROGRAMS	2021 Q1	2021 Q2	2021 Q3	2021 Q4	2022 Q1	2022 Q2	2022 Q3	2022 Q4
PRODUCT CANDIDATES								
NC318 (S15) Monotherapy				Phase 2 update				
NC318 (S15) Anti-PD-1 Combo*		Start Phase 2			Anticipate initial data			
NC410 (LAIR-1)				Initial data				
NC762 (B7-H4)		Start Phase 1				Initial data		

*Investigator-initiated (IIT) trial (Yale University)

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Committed to Addressing the Unmet Needs of Patients with New Solutions

FOCUSED	PROVEN	INNOVATIVE	EXPERIENCED	FUTURE
Approach	Momentum	Platform	Team	Deliverables