JULY 2020

NextCure

Next-Generation Immunomedicines

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 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; (iii) the timing or likelihood of regulatory filings for our product candidates; (iv) our manufacturing capabilities and strategy; (v) the potential benefits and activity of our product candidates; (vi) our expectations regarding the nature of the biological pathways we are studying; (vii) our expectations regarding our FIND-IO platform; and (viii) 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-Q filed with the SEC on May 7, 2020. 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): IND filed and received FDA clearance Q1 2020
- Manufacturing: dedicated, state-of-the-art facility

PLATFORM

- FIND-IO functional screening discovery engine
- Validation of novel cancer targets
- Expanding into autoimmune diseases

PEOPLE

- Experienced management team
- Founder Dr. Lieping Chen: discovered PD-L1
- Strong immunology capabilities

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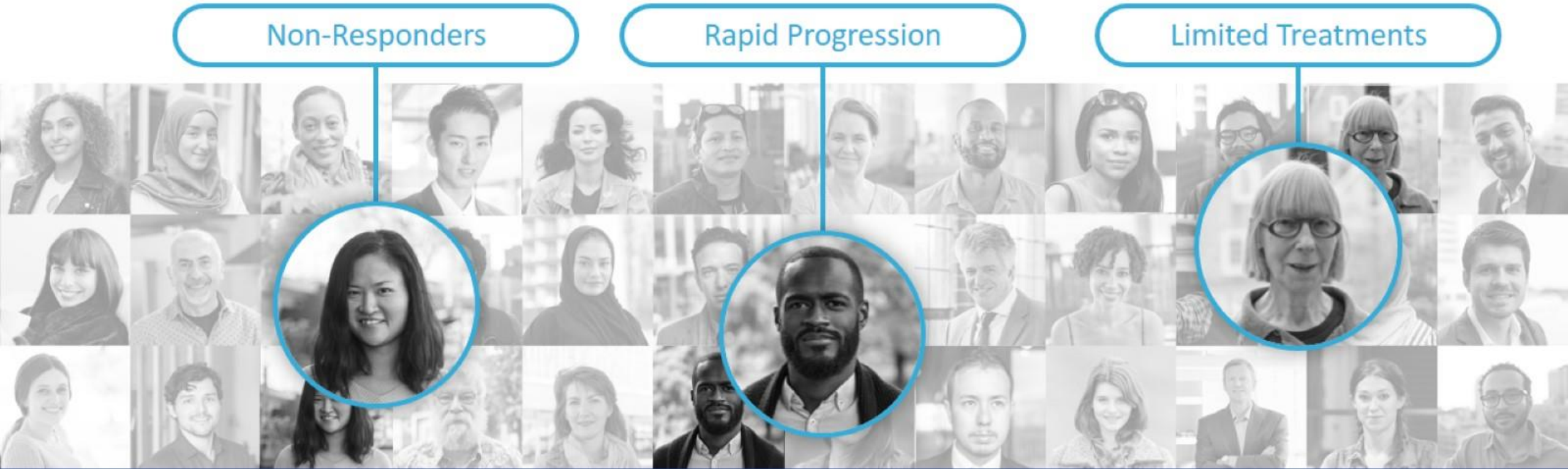
Unmet Medical Needs of Cancer Patients



We Need New Solutions

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Unmet Medical Needs of Cancer Patients

NEW Therapeutic Options

POSITIVE Clinical Responses

IMPROVED Quality of Life

Focused on Patients Not Adequately Addressed Today

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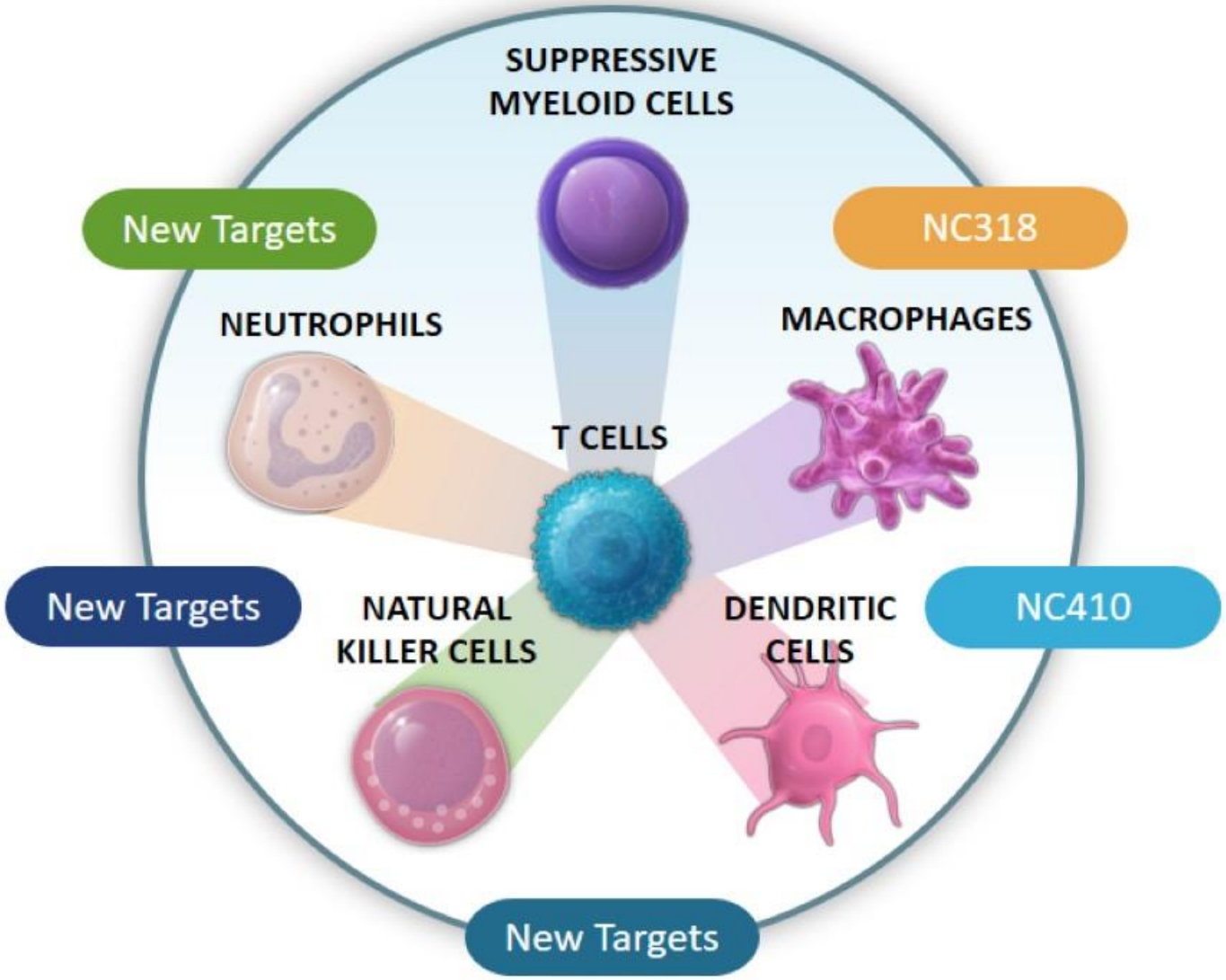
Expanding Targets Beyond T Cells



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Product Development Pipeline

PROGRAMS	CELLS	DISCOVERY	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3	ORIGINAL MILESTONE (UPDATED GUIDANCE*)	WORLDWIDE RIGHTS
PRODUCT CANDIDATES								
NC318 (S15) Monotherapy	Tumors and macrophages	ONCOLOGY					Phase 2 data by end of Q4 2020 (Expect delay)	NextCure
NC318 (S15) Chemo Combo	Tumors and macrophages	ONCOLOGY					Initiate Phase 1 mid-2020 (Temporary delay)	NextCure
NC410 (LAIR-1)	Dendritic and T cells	ONCOLOGY					Initial Phase 1 data 2H 2021	NextCure
DISCOVERY AND RESEARCH PROGRAMS								
Multiple Programs	Immune cells						First IND filing in early 2021	NextCure
FIND-IO Platform	Multiple cell types						First IND filing in late 2022	NextCure

*Updated guidance noted in parentheses indicates delays or expected delays due to the ongoing COVID-19 pandemic. Where delays are indicated or expected, the original milestone should be disregarded.

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NC318
Humanized Monoclonal Antibody

Phase 1/2 CLINICAL TRIAL

TARGET
Siglec-15 ("S15")

CELL TYPES
Tumors & macrophages

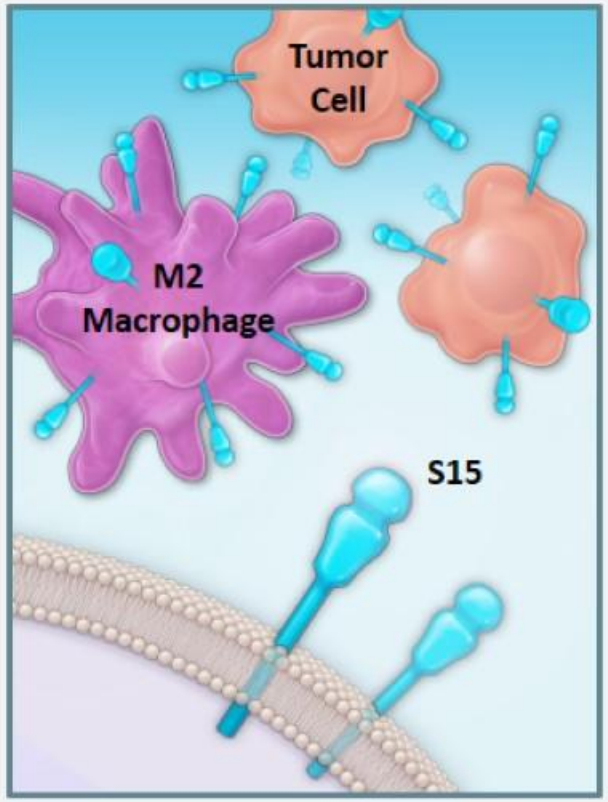
MOA
Blocks S15-induced immunosuppression

INDICATIONS
NSCLC, ovarian, head & neck and triple negative breast cancers

S15 as a Target

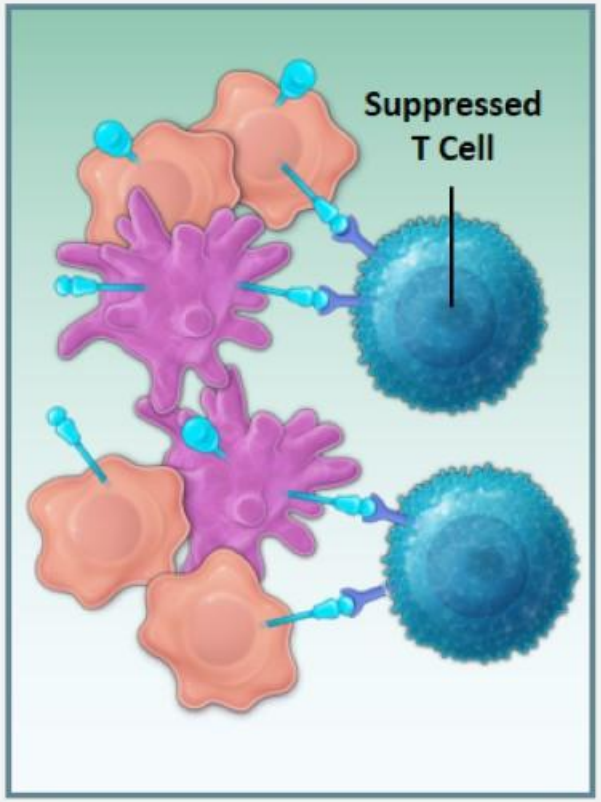
EXPRESSION

Tumors and Macrophages



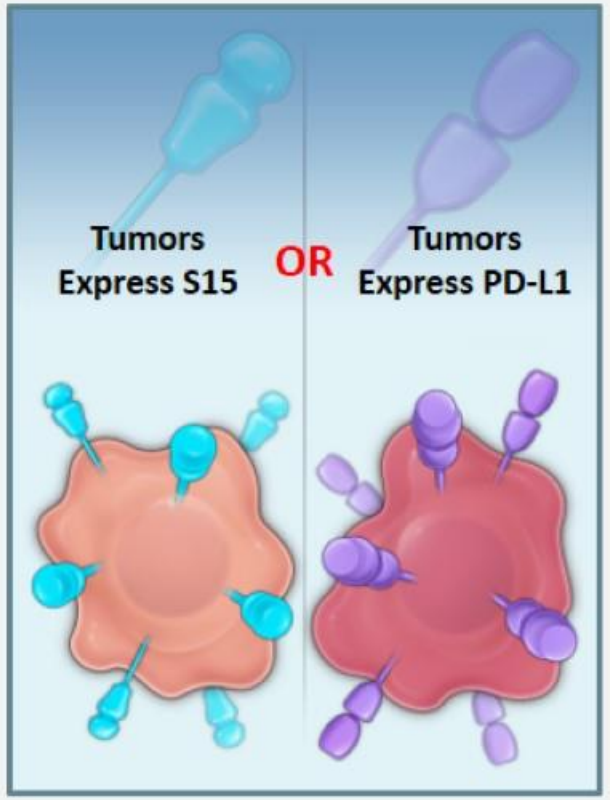
FUNCTION

Potently Suppresses T Cell Function



NON-RESPONDERS

Generally Non-Overlapping with PD-L1 Expression



Wang et al., 2019

nature medicine ARTICLES

Siglec-15 as an immune suppressor and potential target for normalization cancer immunotherapy

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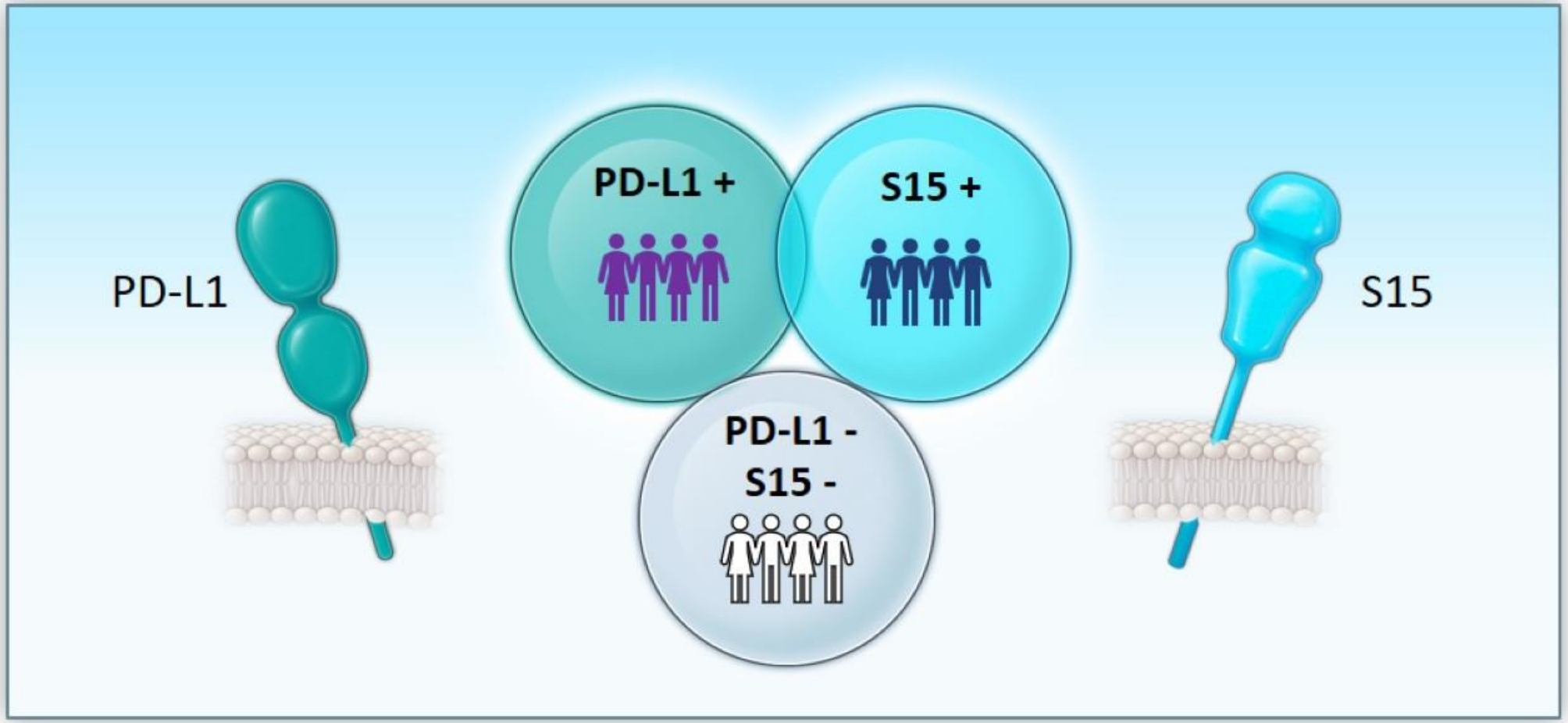
NC318: A Potential Treatment Option for PD-1/PD-L1 Non-Responders

S15 AND PD-L1 EXPRESSION GENERALLY DO NOT OVERLAP



Wang et al., Nat Med 2019 Mar 4
Toki et al., AACR Poster 3151 2019

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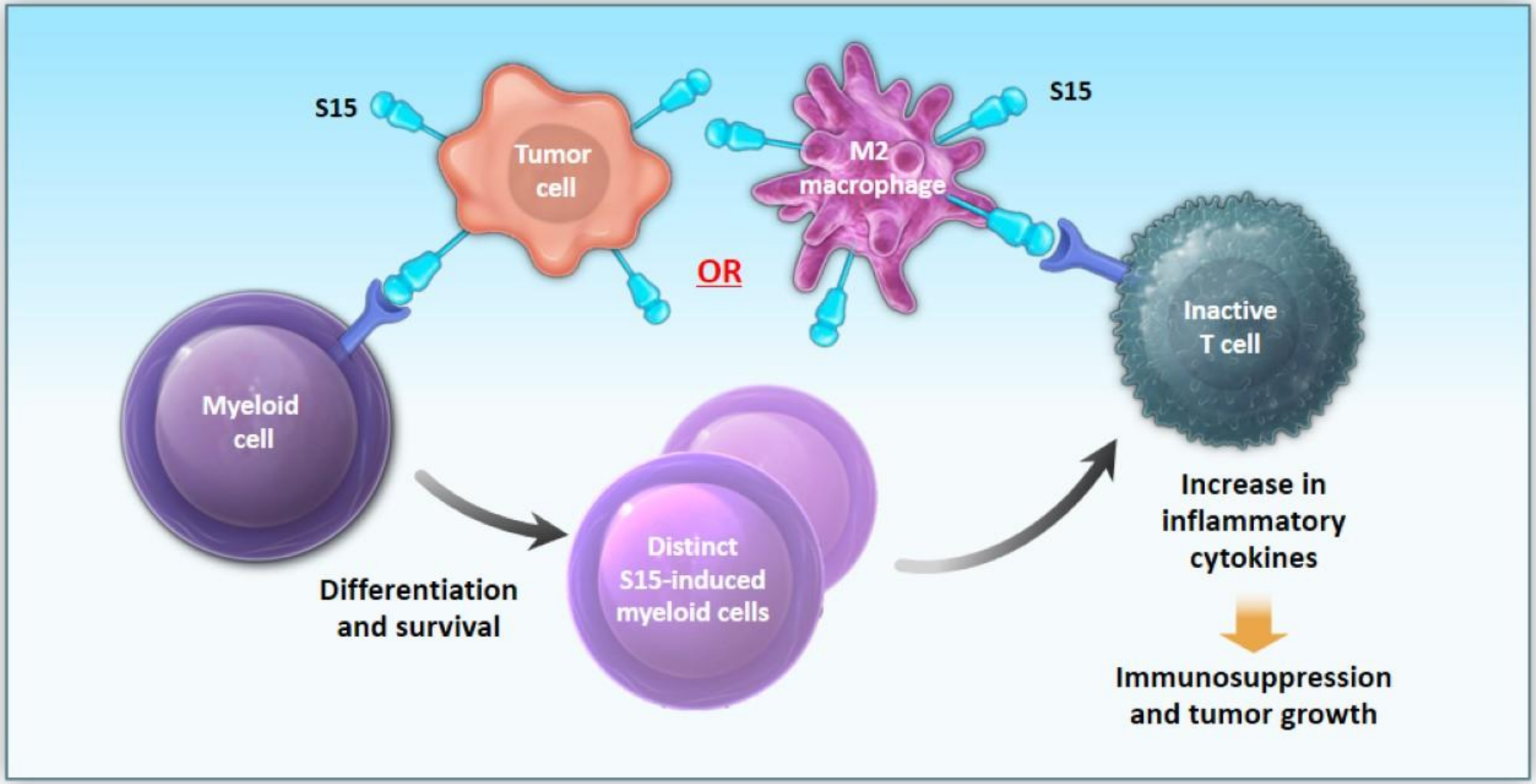
S15 is Immunosuppressive in the Tumor Microenvironment



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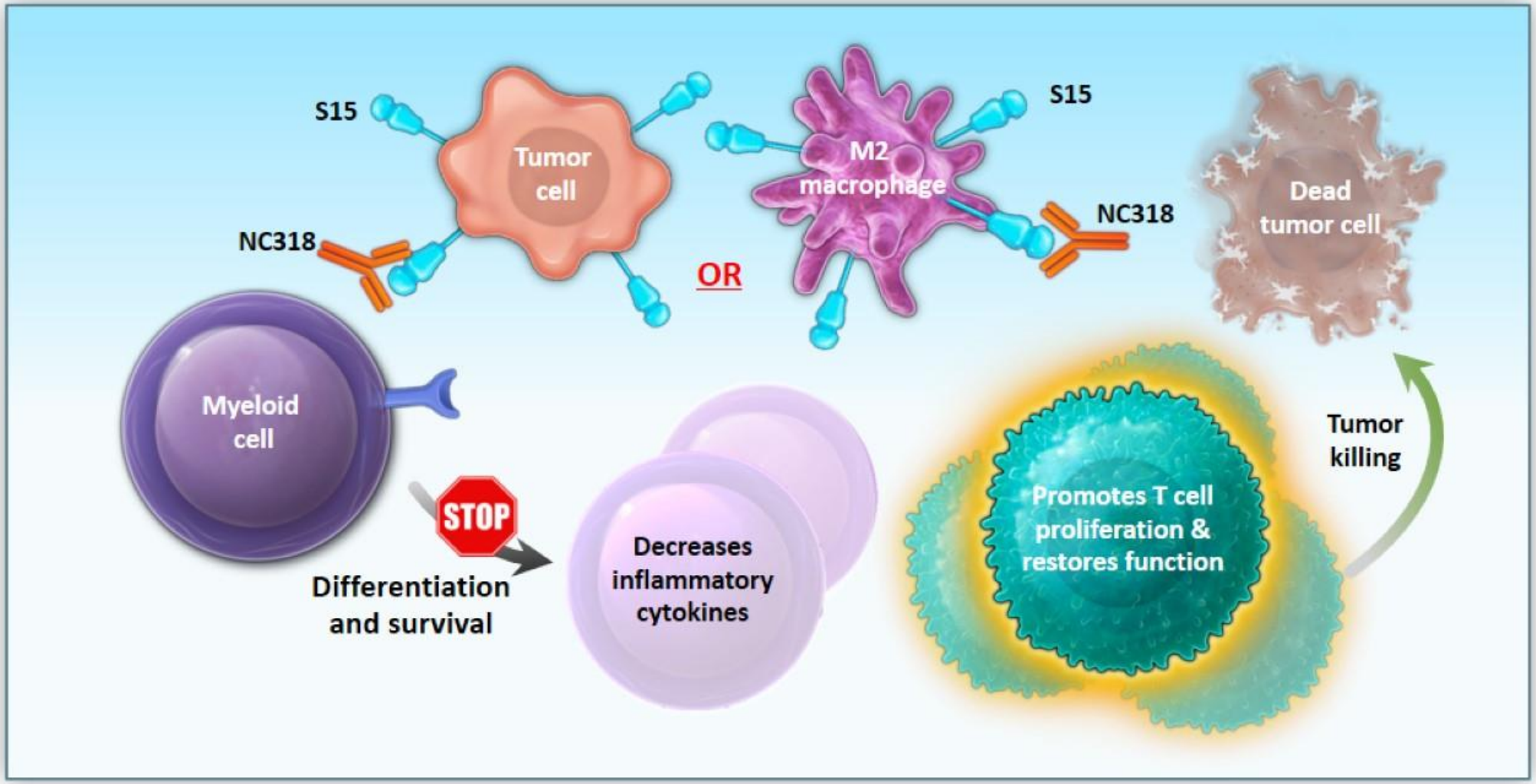
NC318 Blocks Immunosuppressive Activity Induced by S15



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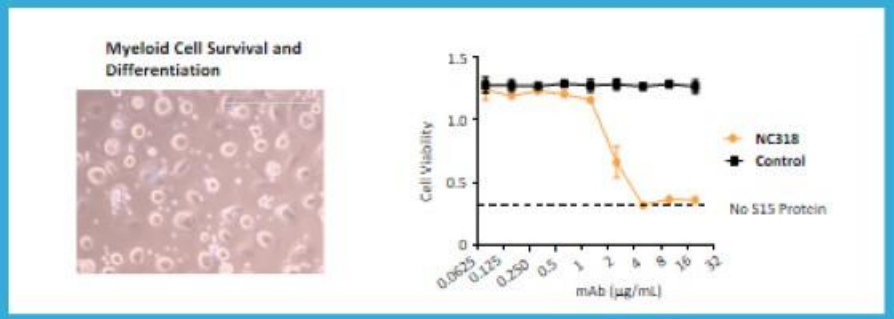
NC318 Mechanism of Action Restores Immune Function *In Vitro*

INHIBITS

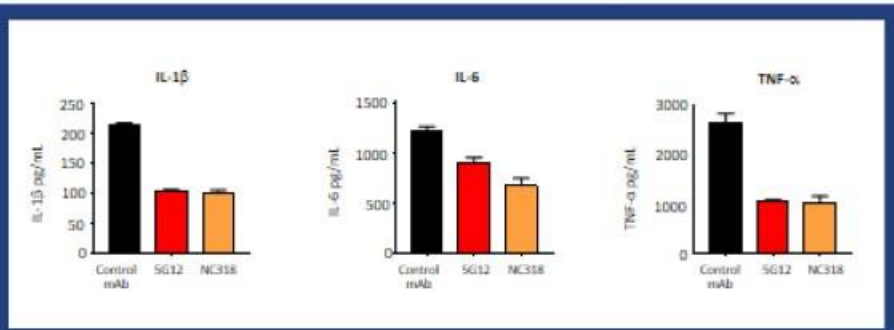
Myeloid Cell Differentiation and Survival



Blocks survival of myeloid cells

DECREASES

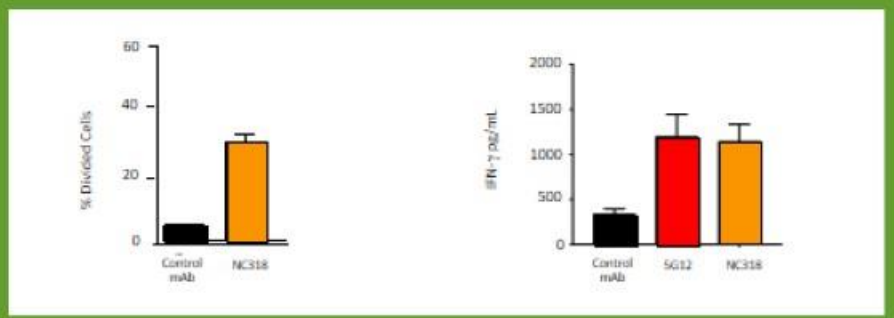
Pro-Inflammatory and Pro-Tumorigenic Cytokines



Decreases IL-1β, IL-6 & TNF-α

PROMOTES

T Cell Function



Increases T cell proliferation & IFN-γ production

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NC318 Phase 1 Trial Status as of November 9, 2019 (SITC Presentation)

DOSE ESCALATION AND SAFETY AND TOLERABILITY

Completed

ENROLLMENT

- 49 patients
- 15 tumor types
- Median of 3 prior therapies
- All comers regardless of PD-L1 or S15 expression status

SAFETY

- No DLTs through 800 mg
- 1 DLT at 1600 mg: Grade 3 pneumonitis
- Common irAEs observed, including diarrhea, rashes, vitiligo, arthralgias

RESPONSES

- Evaluations every 8 weeks
- 1 confirmed CR (55+ weeks)
- 1 confirmed PR (28+ weeks)
- 14 durable SD (≥16 weeks)

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

Most common AEs: infusion reactions, fatigue, headaches, pruritis, elevated amylase and elevated lipase

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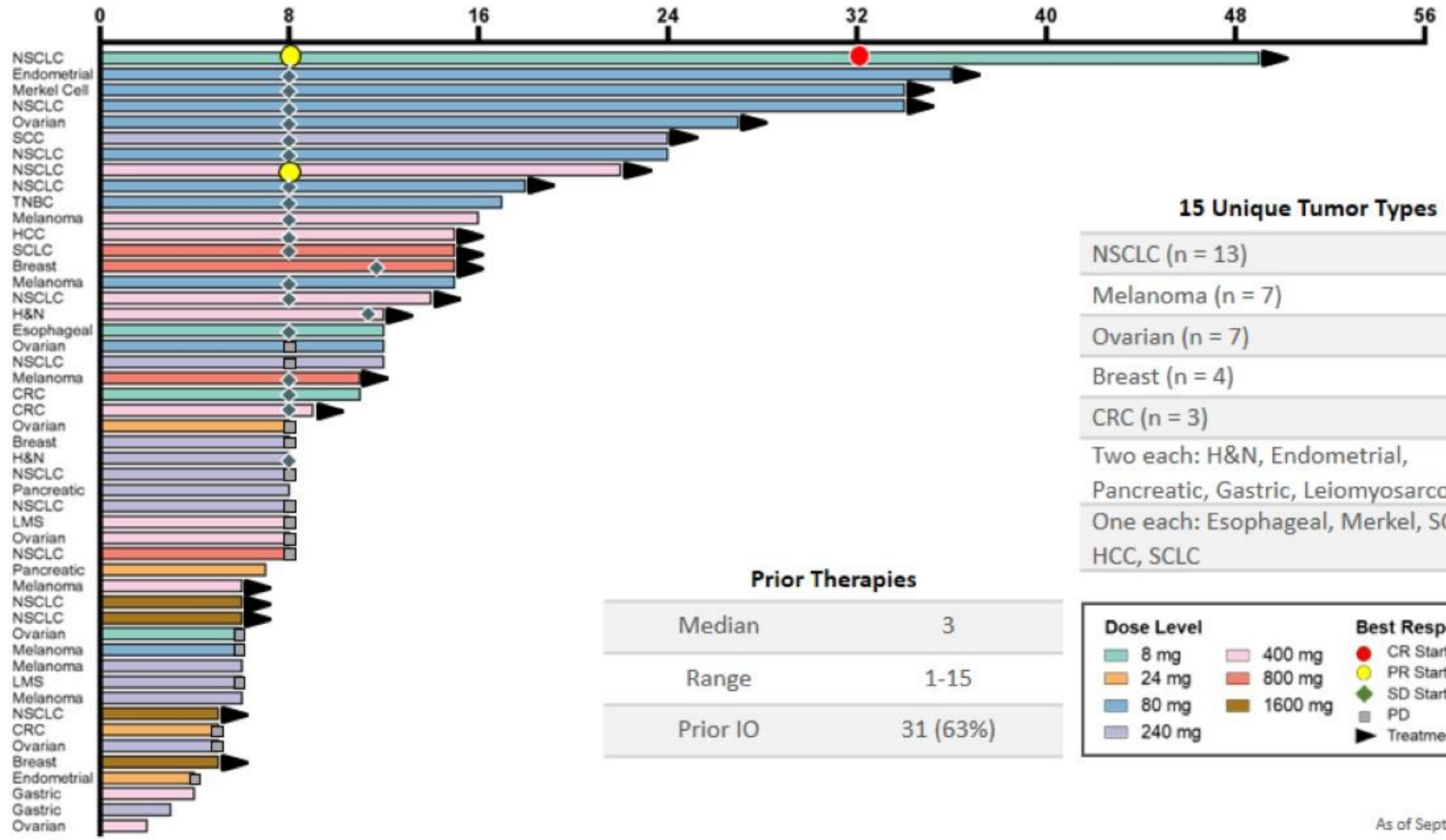
Treatment Duration in Weeks for All Phase 1 Patients



15 Unique Tumor Types

NSCLC (n = 13)
Melanoma (n = 7)
Ovarian (n = 7)
Breast (n = 4)
CRC (n = 3)
Two each: H&N, Endometrial, Pancreatic, Gastric, Leiomyosarcoma
One each: Esophageal, Merkel, SCC, HCC, SCLC

Prior Therapies

Median	3
Range	1-15
Prior IO	31 (63%)

Dose Level

- 8 mg
- 24 mg
- 80 mg
- 240 mg
- 400 mg
- 800 mg
- 1600 mg

Best Response

- CR Start
- PR Start
- SD Start
- PD
- Treatment ongoing

As of September, 2019

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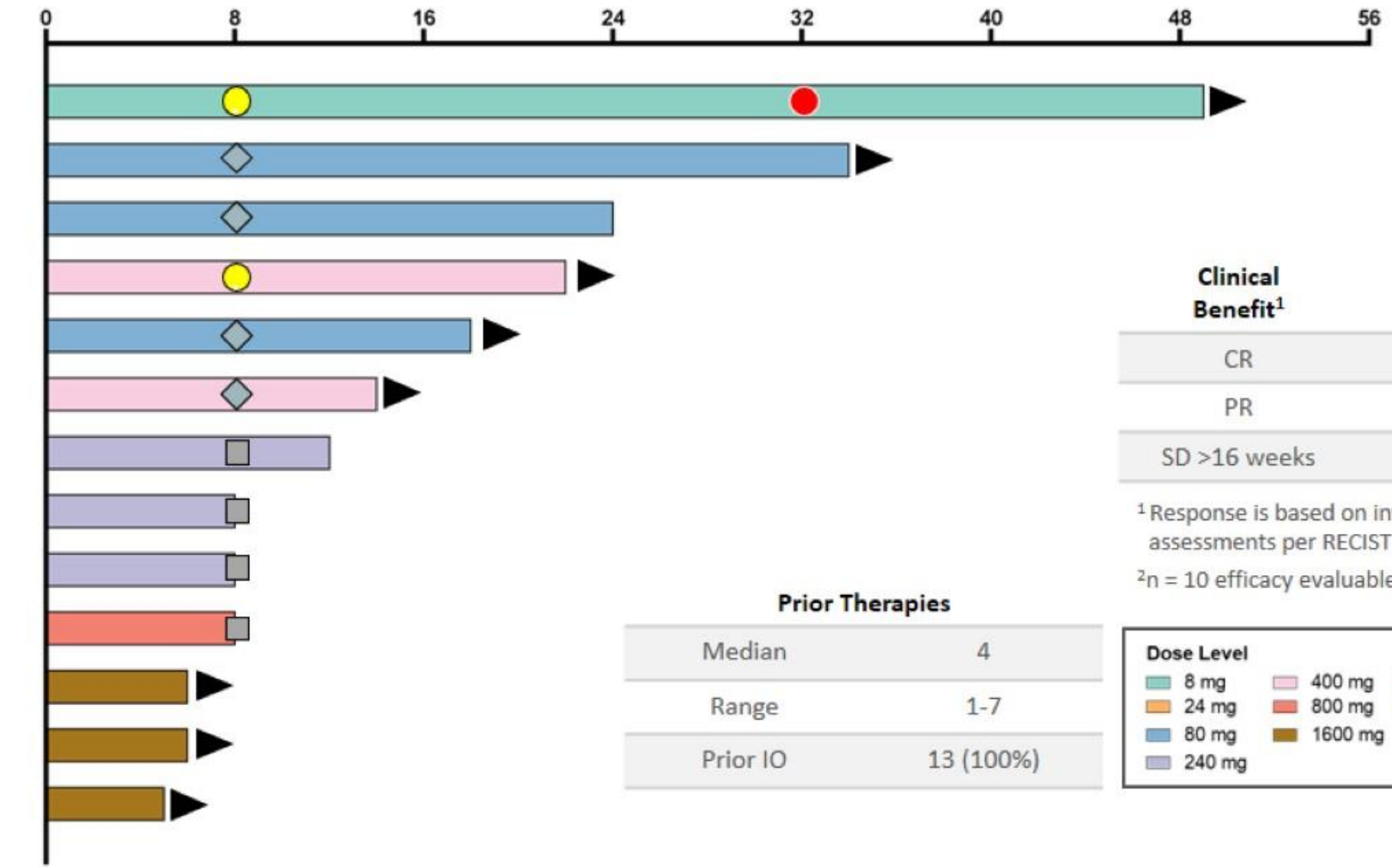
Durable Clinical Benefit for PD-1 Refractory NSCLC Patients



Clinical Benefit[1]	NSCLC (n = 13)[2]
CR	1
PR	1
SD >16 weeks	3

[1] Response is based on investigator tumor assessments per RECIST v1.1

[2] n = 10 efficacy evaluable population

Prior Therapies	
Median	4
Range	1-7
Prior IO	13 (100%)

Dose Level
- 8 mg
- 24 mg
- 80 mg
- 240 mg
- 400 mg
- 800 mg
- 1600 mg

Best Response
- CR Start
- PR Start
- SD Start
- PD
- Treatment ongoing

As of September, 2019

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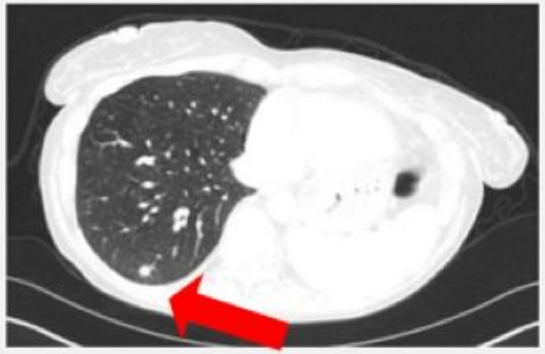
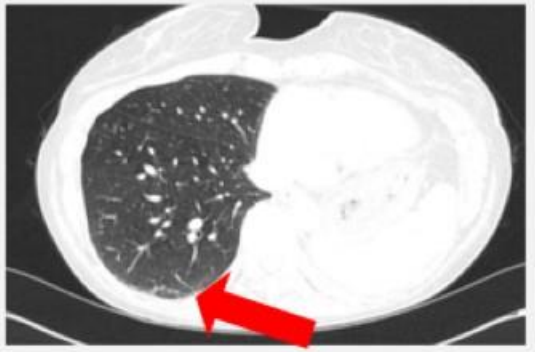
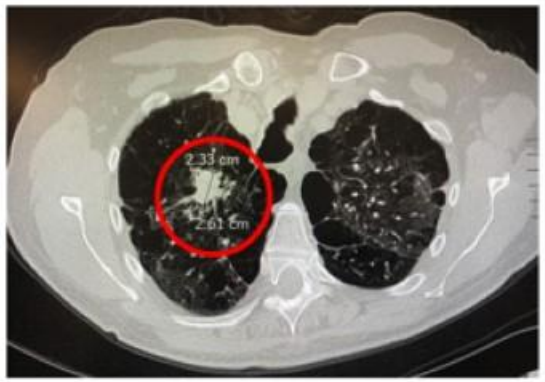
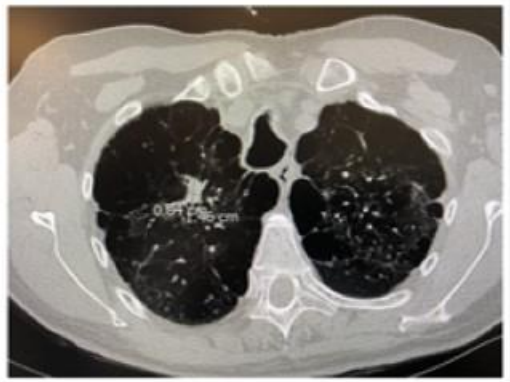
NC318: Single-Agent Activity in PD-1 Refractory NSCLC

	BASELINE	WEEK 16	
Confirmed COMPLETE RESPONSE			**56 y/o NSCLC with multiple lesions (PD-L1 TPS <50%) 8 mg every 2 weeks** **PRIOR THERAPIES:** Chemotherapy (x3) Nivolumab (best response stable disease then progression)
	Target lesion	Target lesion gone	
Confirmed PARTIAL RESPONSE			**74 y/o NSCLC (PD-L1 TPS <50%) 400 mg every 2 weeks** **LAST PRIOR THERAPY:** Immunotherapy: LAG3/PD-1 (best response stable disease then progression)
		Target lesions -71%	

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Conclusions from Phase 1 Portion of NC318 Trial

- Well tolerated across multiple dose levels
- AE profile consistent with approved immunotherapies
- Predictable PK profile
- Encouraging single-agent anti-tumor activity
  - PD-1 refractory NSCLC: 1 CR, 1 PR, and 3 SD
  - Other tumor types: SD >24 weeks in endometrial, Merkel cell, and ovarian cancers
- Phase 2 initiated October 2019

NC318 Phase 2 Trial Status as of November 9, 2019

DOSE EXPANSION - ENROLLING

TUMOR TYPES

- NSCLC
- H&N
- Ovarian
- TNBC

DESIGN

- Biopsies required
- PD-L1 TPS <50%
- S15 evaluated retrospectively
- Biomarker evaluation
- Monotherapy
- 400 mg every 2 weeks

DELIVERABLES

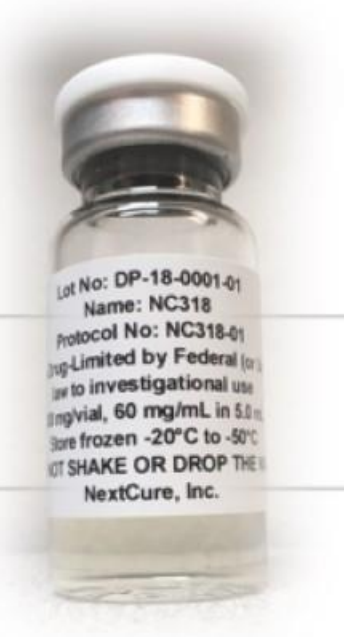
- Initial Phase 2 data (expect delay due to COVID-19)

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

NC318

Restores Immune Function in a Highly Suppressive TME

- MOA / Preclinical studies complete
  - Relieves S15-mediated inhibition of T cells
  - Increases IFN-γ production
  - Decreases inflammatory cytokines
- Completed enrollment of Phase 1
- Reported preliminary data at SITC 2019
- Initiate Phase 2 combination trial with SOC chemotherapies (temporarily delayed due to COVID-19)
- Report initial Phase 2 data (expect delay due to COVID-19)



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NC410

Decoy Human Fusion Protein Targeting the TME

Phase 1 Started July 2020

TARGET

Leukocyte-Associated Immunoglobulin-like Receptor-1 (LAIR-1)

CELL TYPES

Dendritic cells and T cells

MOA

Promotes T cell function & dendritic cell activity

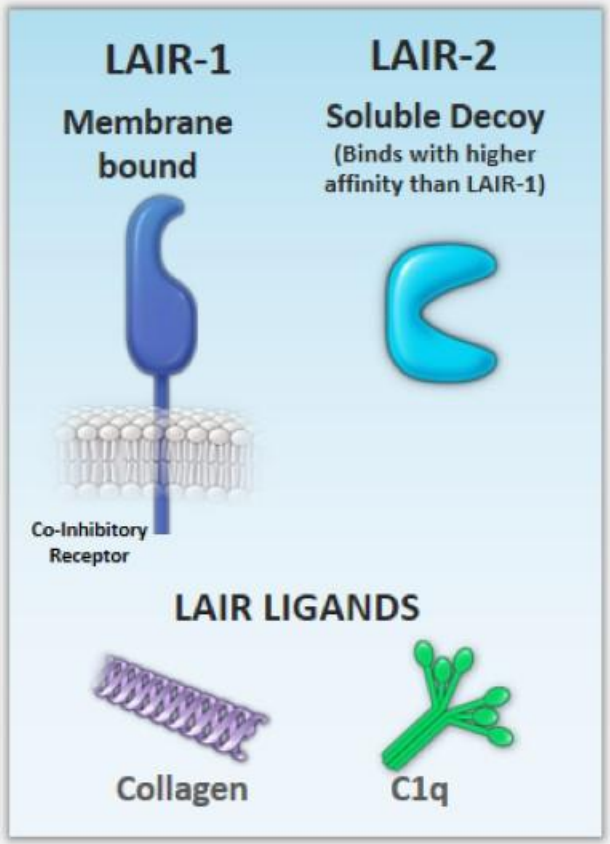
INDICATIONS

Advanced or metastatic solid tumors

LAIR-1 & LAIR-2 Functional Relationship

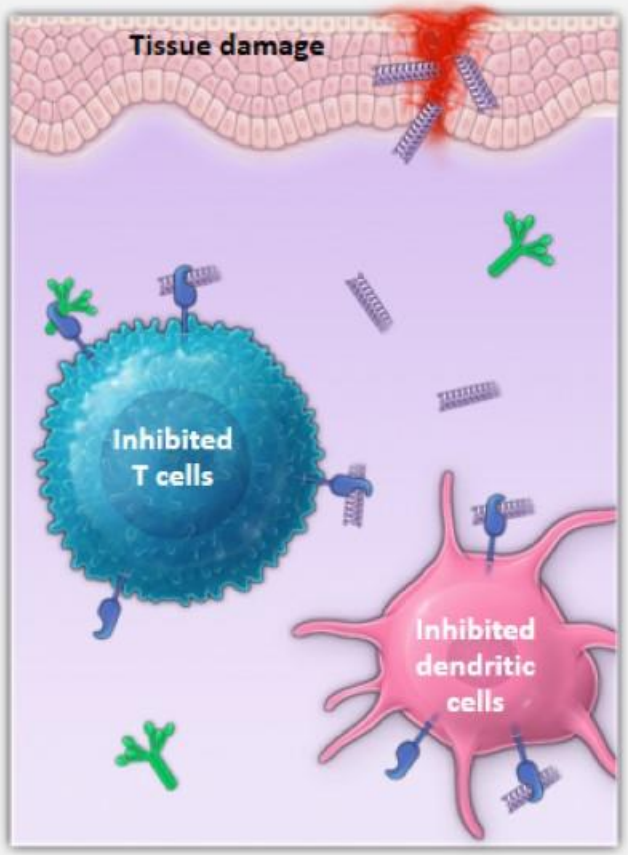
LAIR & LIGANDS

LAIR-1 and LAIR-2 Bind Collagen and C1q



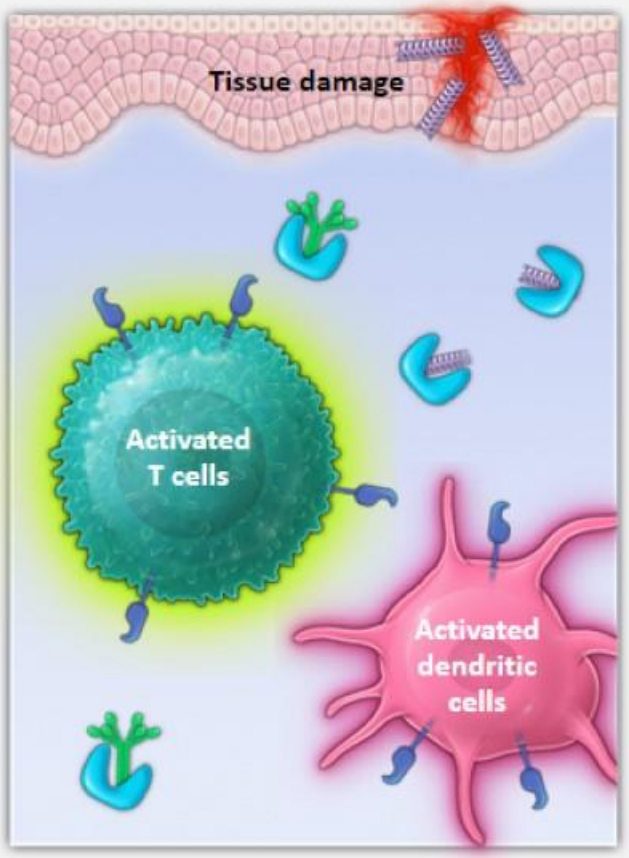
LAIR-1

Ligands Expressed in Response to Inflammation & Inhibit Immune Function



LAIR-2

LAIR-2 Modulates LAIR-1 Mediated Inhibition



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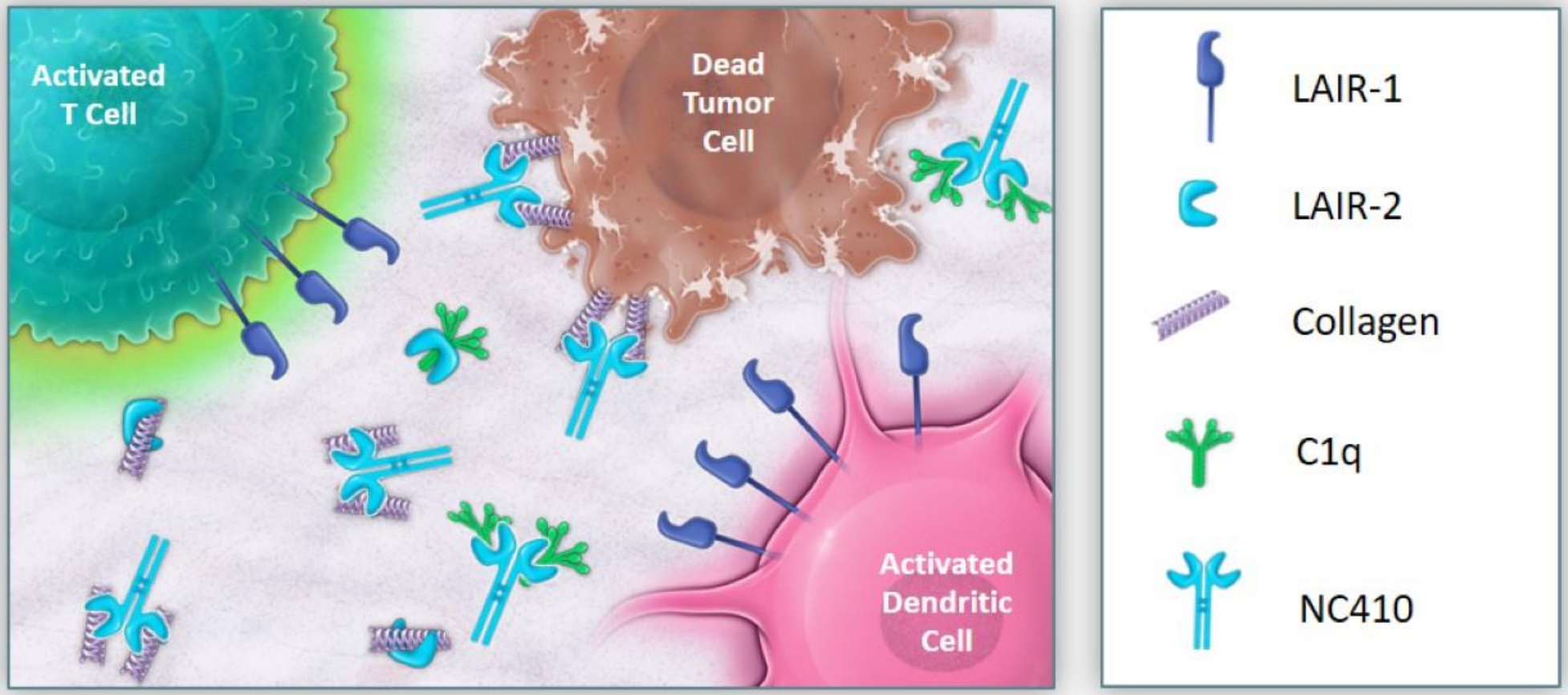
NC410 Prevents Immune Suppression

NC410 IS A FUSION PROTEIN OF LAIR-2 AND A DECOY FOR LAIR-1 AND PROMOTES T CELL FUNCTION AND DC ACTIVATION



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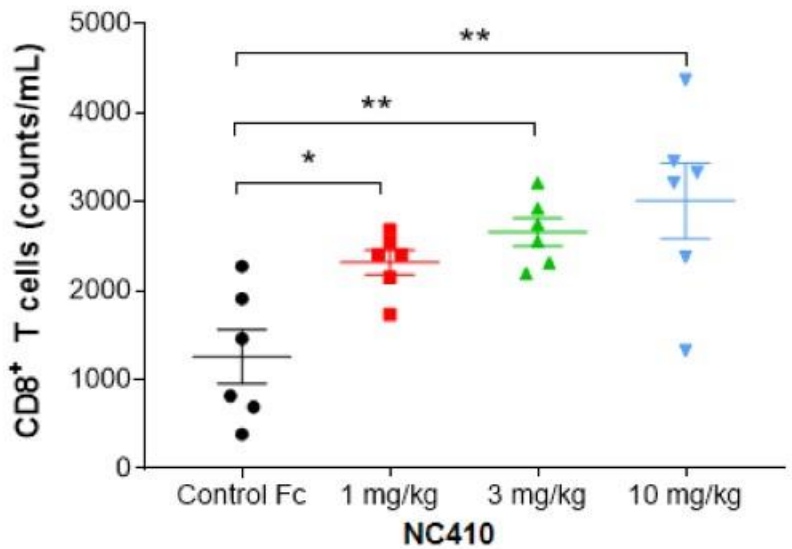
NC410 Enhanced T Cell Expansion and Relieved Immunosuppression

Blocked

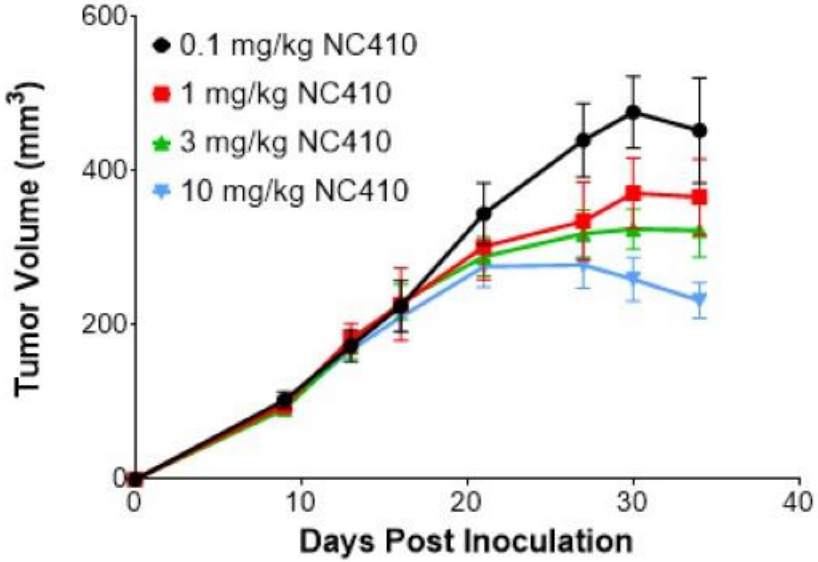
SUPPRESSION



Human CD8+ T cell expansion
in vivo

Decreased

TUMOR VOLUME



Human PBMCs in mice: CD8+ T cell activity decreased tumor volume in HT29 model

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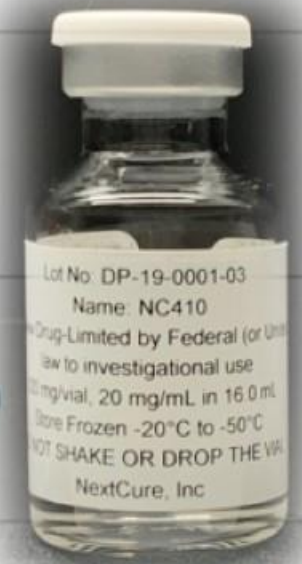
NC410
Summary

- Promotes T cell function and dendritic cell activity in preclinical studies
- cGMP manufacturing complete
- IND filed & received FDA clearance Q1 2020
- Initiated Phase 1 trial
- Initial Phase 1 data 2H 2021



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Finding Solutions with a Powerful Discovery Engine

Functional, Integrated, NextCure Discovery in Immuno-Oncology

FUNCTIONAL READOUTS

- T cell activation
- Cytokine release
- Proliferation
- Apoptosis
- Effector function
- Pathway reporters

TARGET LIBRARIES

- Membrane proteins
- Soluble proteins
- Small molecules
- Soluble factors

CELL TYPES

- Primary
- Cell lines
- Lymphoid
- Myeloid
- Tumor

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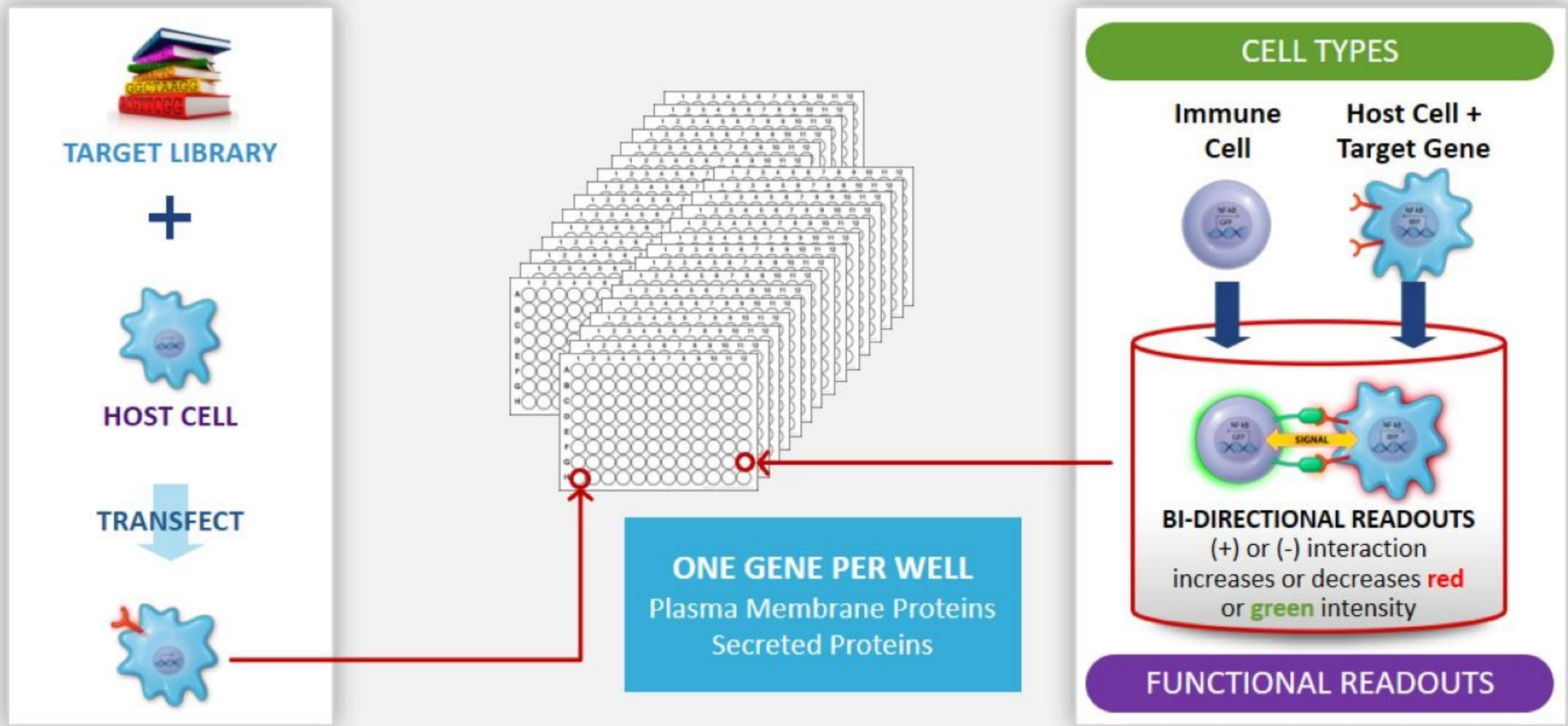
FIND-IO Screening Methodology



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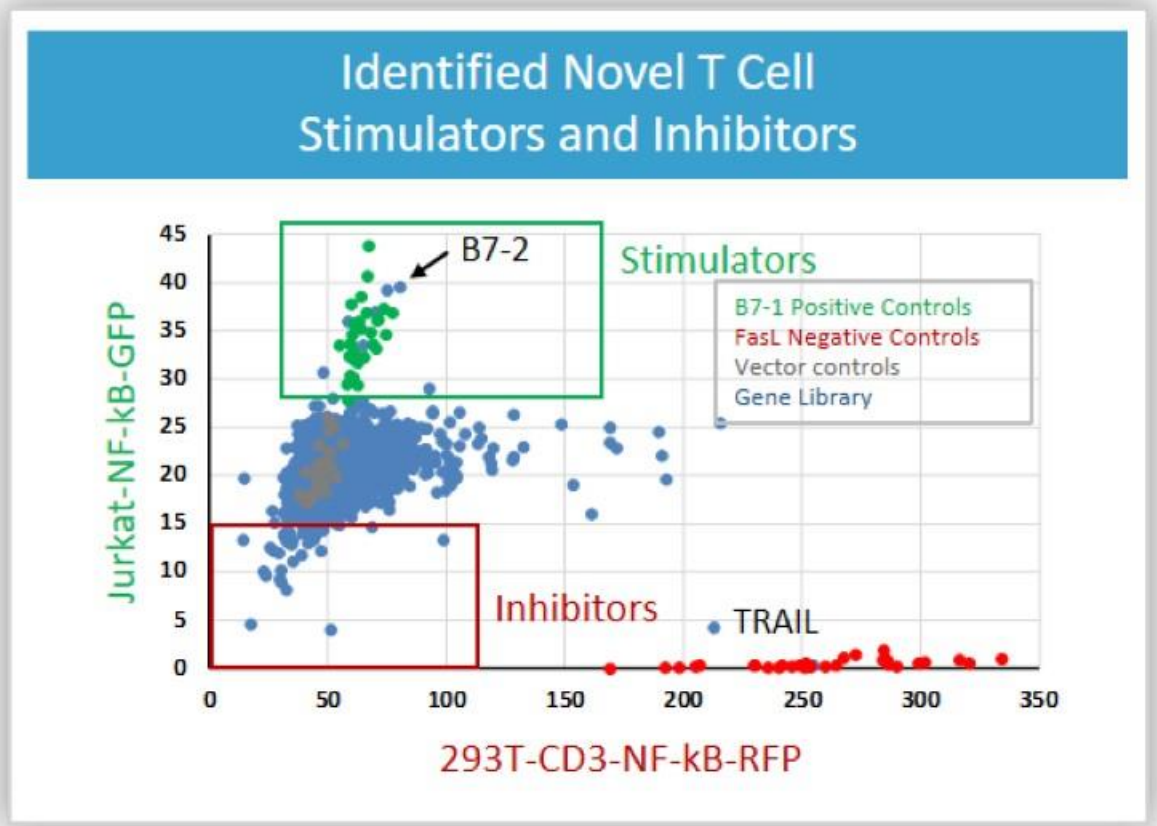
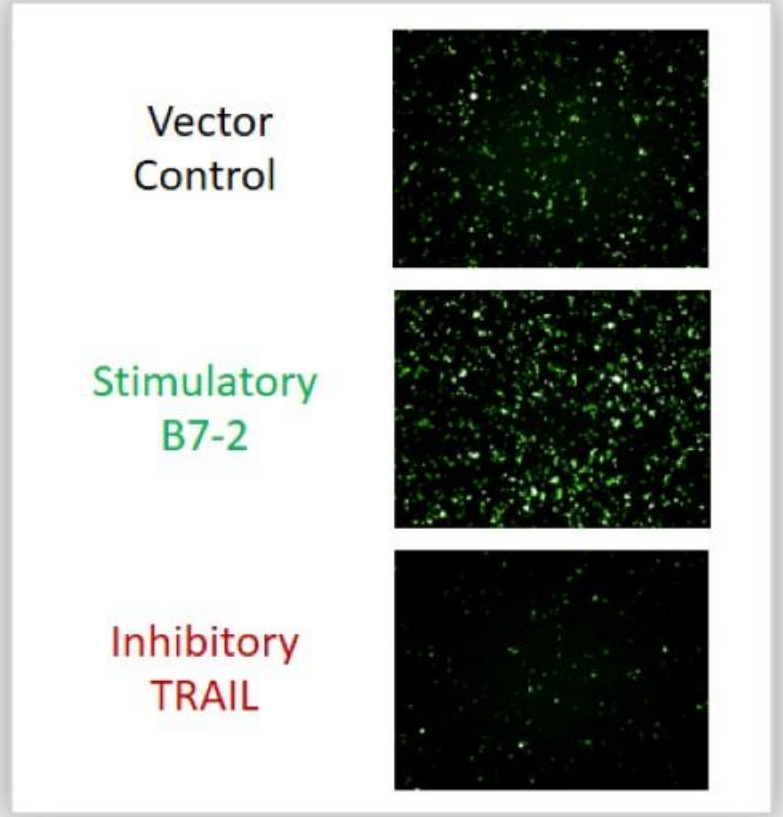
Jurkat “T Cell Line” Screening and Validating FIND-IO Hits





REPRODUCIBILITY

ROBUSTNESS

RELEVANCY

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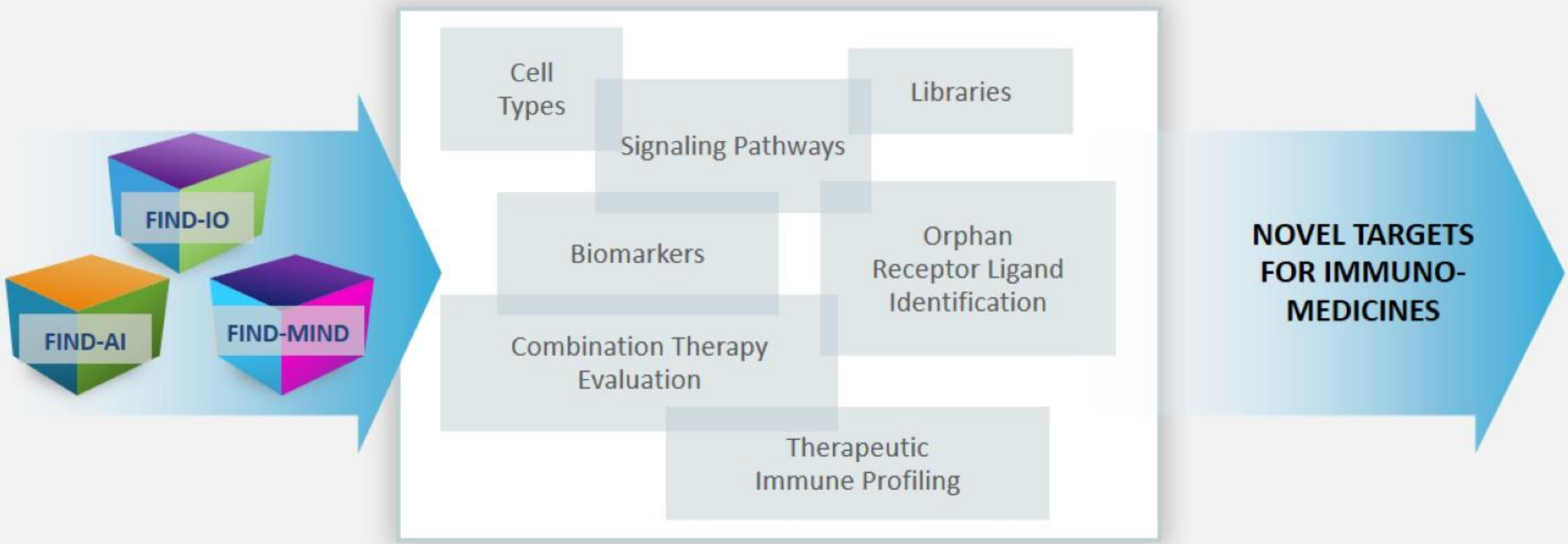
Versatile, Flexible, and Comprehensive Approach for Target Identification



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Anticipated Near-Term Milestones

NC318

- Initiate Phase 2 combination trial with standard of care chemotherapies (temporarily delayed due to COVID-19)
- Report initial Phase 2 data (expected delay due to COVID-19)

NC410

- Initiate Phase 1 (temporarily delayed due to COVID-19)

DISCOVERY

- Identify novel targets and initiate validation

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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