NextCure

NEXT-GENERATION IMMUNOMEDICINES

SEPTEMBER 2019

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 timing or likelihood of regulatory filings for our product candidates; (iii) our manufacturing capabilities and strategy; (iv) the potential benefits and activity of our product candidates; (v) our expectations regarding the nature of the biological pathways we are studying; (vi) our expectations regarding our FIND-IO platform; and (vii) the potential benefits of our relationships with Dr. Lieping Chen, Yale University and Eli Lilly and Company.

Various factors could cause actual results to differ materially from those projected in any forward-looking statement. Such risks and uncertainties include, among others: 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 our prospectus dated May 8, 2019. 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 of Immuno-medicines

- NC318: Phase 1/2 topline data in Q4 2019
- NC410 (LAIR-1): IND expected Q1 2020
- Additional research and development programs
- Manufacturing: dedicated, state-of-the-art facility

Platform for Novel Target Discovery

- FIND-IO functional screening discovery engine
- Oncology partnership with Lilly: $40M upfront and equity
- Expanding into autoimmune diseases

Proven Abilities

- Experienced Management team
- Scientific founder Dr. Lieping Chen: discovered PD-L1 & other key targets
- Strong balance sheet to deliver on objectives

THE UNMET NEEDS OF CANCER PATIENTS ARE SIGNIFICANT

NON-RESPONDERS **RAPID PROGRESSION** **LIMITED TREATMENTS**

We Need New Solutions

NextCure

COMMITTED TO DISCOVERING & DEVELOPING NOVEL, FIRST-IN-CLASS IMMUNOMEDICINES TO IMPROVE LIVES

NEW
therapeutic options

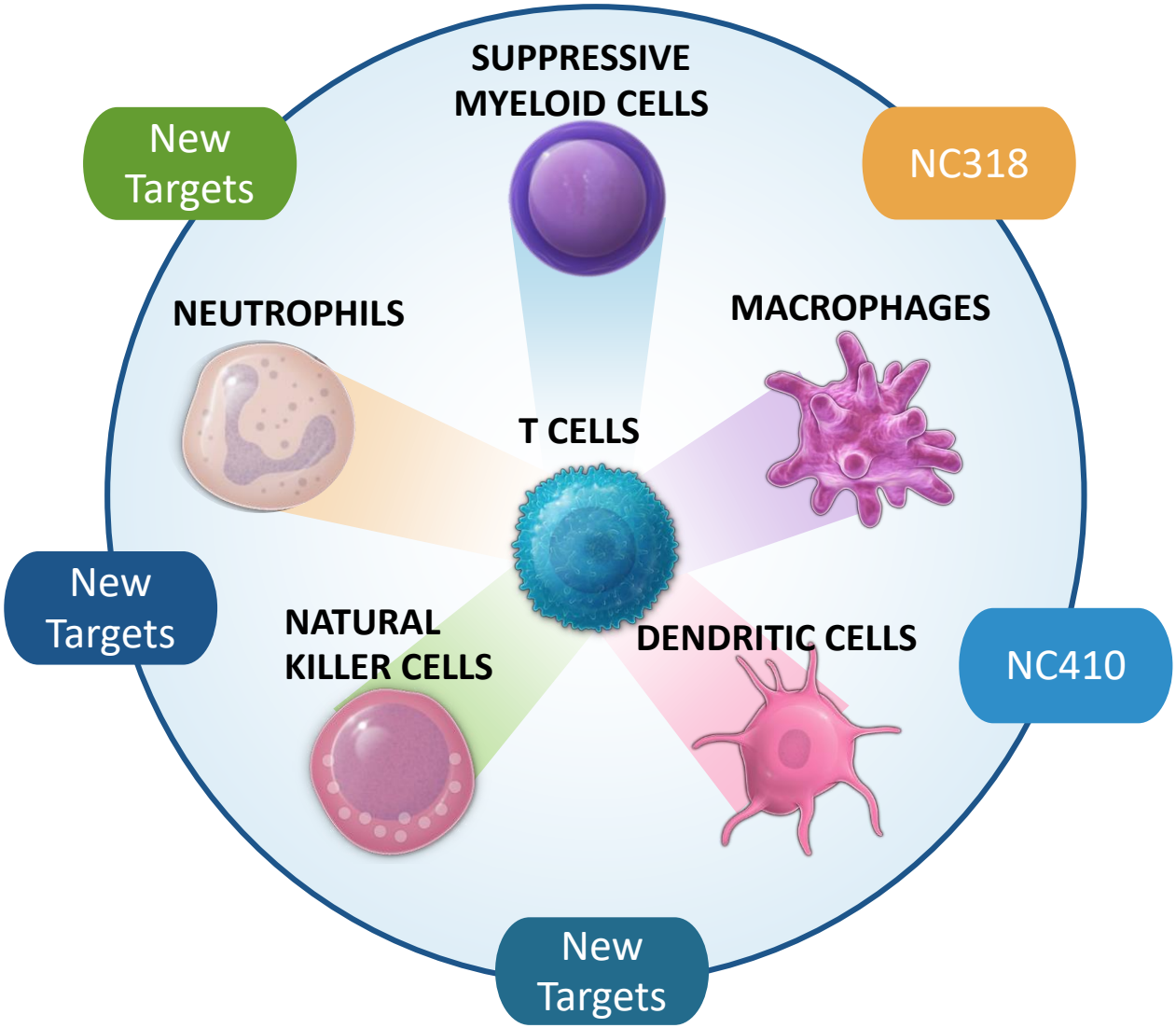
POSITIVE
clinical responses

IMPROVED
quality of life

Focused on Cancer Patients Not Adequately Addressed Today

NextCure

EXPANDING TARGETS BEYOND T CELLS



NextCure

EXPERIENCED TEAM WITH STRONG TRACK RECORD

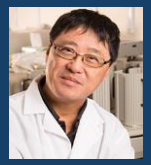
HISTORY AND SUCCESS OF WORKING TOGETHER

Michael Richman **CEO**	Amplimmune	MacroGenics	MedImmune	CHIRON
Steve Cobourn, CPA **CFO**	VACCINEX	Otsuka		
Kevin N Heller, MD **CMO**	Incyte	AstraZeneca	Bristol-Myers Squibb	The Rockefeller University
Sol Langermann, PhD **CSO**	Amplimmune	PharmAthene	MedImmune	
Jim Bingham, PhD **CDO**	Amplimmune	Lonza	Human Genome Sciences	MedImmune
Timothy Mayer, PhD **SVP, Corporate Development**	MacroGenics	Banner & Witcoff, Ltd.	invitrogen	life technologies
Linda Liu, PhD **SVP, Research**	Amplimmune	MaxCyte	OSIRIS	St. Jude Children's Research Hospital
Sebastien Maloveste, PhD **VP, Business Development**	GenVec	Amplimmune		
Dallas Flies, PhD **VP, Discovery Research**	UNM	Yale University	Johns Hopkins Medicine	mayo

WORLD-RENOWNED SCIENTIFIC FOUNDER AND KEY COLLABORATION

YALE COLLABORATION

LIEPING CHEN, MD, PhD
Discovered multiple key immune pathways, including PD-L1



WORLD-RENOWNED INSTITUTION
Sponsored research, clinical samples, cell lines & models

TEAM OF COLLABORATORS
Roy Herbst, MD, PhD
David Rimm, MD, PhD
Mario Sznol, MD

NATURE MEDICINE PUBLICATION

nature medicine
ARTICLES
https://doi.org/10.1038/s41591-019-0374-x

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

Jun Wang[1,5], Jingwei Sun[1,5], Linda N. Liu[2], Dallas B. Flies[2], Xinxin Nie[1], Maria Toki[3], Jianping Zhang[1], Chang Song[2], Melissa Zarr[2], Xu Zhou[1], Xue Han[1], Kristina A. Archer[2], Thomas O'Neill[2], Roy S. Herbst[4], Agedi N. Boto[1,3], Miguel F. Sanmamed[1], Solomon Langermann[2], David L. Rimm[3,4] and Lieping Chen[1,4*]

NEXTCURE HAS DELIVERED ROBUST PRODUCT PIPELINE IN *LESS THAN 3 YEARS*

PROGRAMS	CELLS	DISCOVERY	PRECLINICAL	PHASE 1	PHASE 2	PHASE 3	NEXT MILESTONE	WORLDWIDE RIGHTS
PRODUCT CANDIDATES								
NC318 (S15)	Tumors and macrophages	ONCOLOGY					Phase 1 complete in Q4 2019	NextCure
NC410 (LAIR-1)	Dendritic & T cells	ONCOLOGY					IND filing in Q1 2020	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	Lilly / NextCure

NC318

HUMANIZED MONOCLONAL ANTIBODY

Phase 1/2 Clinical Trial Initiated October 2018

TARGET

Siglec-15 (“S15”)

CELL TYPES

Tumors & macrophages

MOA

Designed to block S15-induced immunosuppression

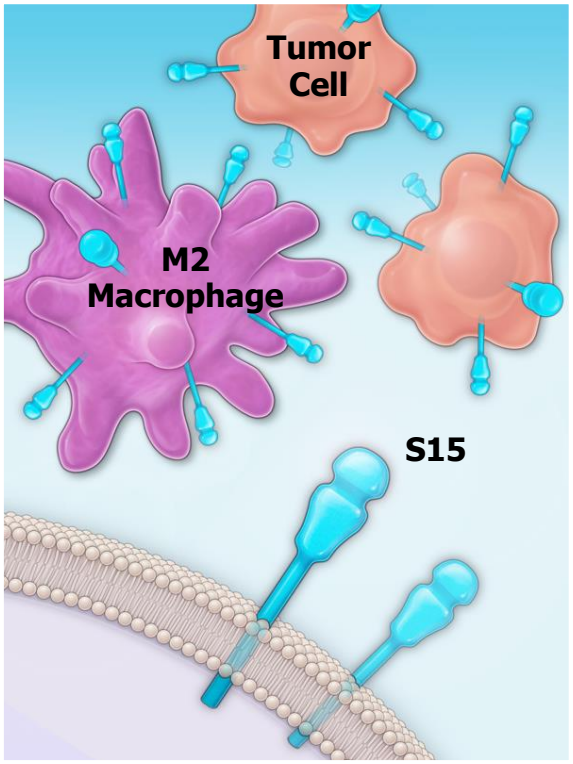
INDICATIONS

Advanced or metastatic solid tumors, which could include ovarian, NSCLC, and head & neck cancers

S15 AS A TARGET

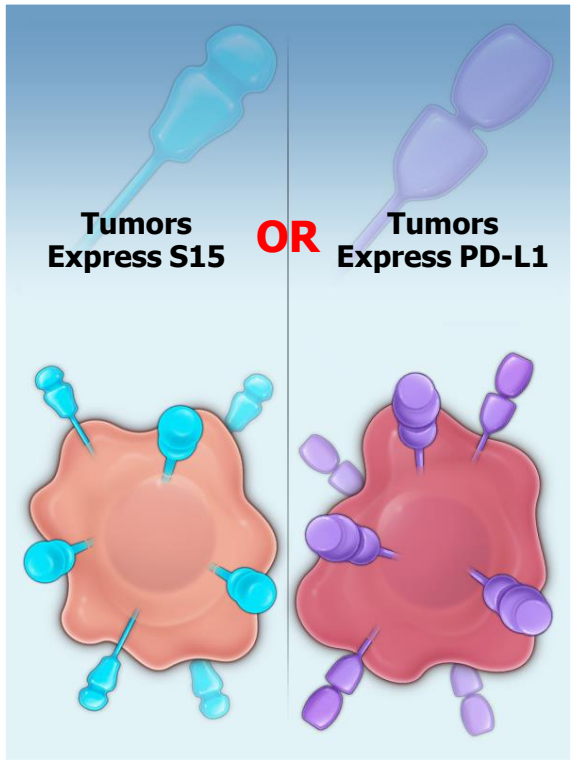
EXPRESSION

Tumors &
Macrophages



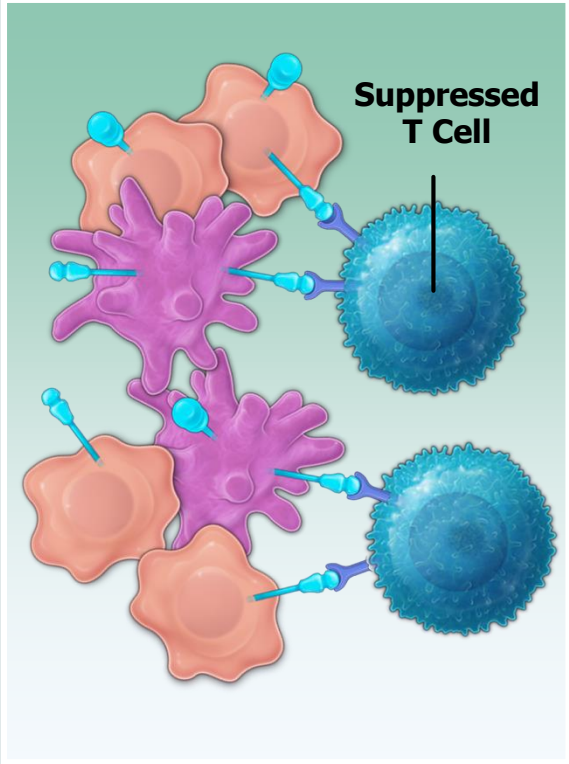
NON-RESPONDERS

Generally Non-Overlapping
with PD-L1 Expression



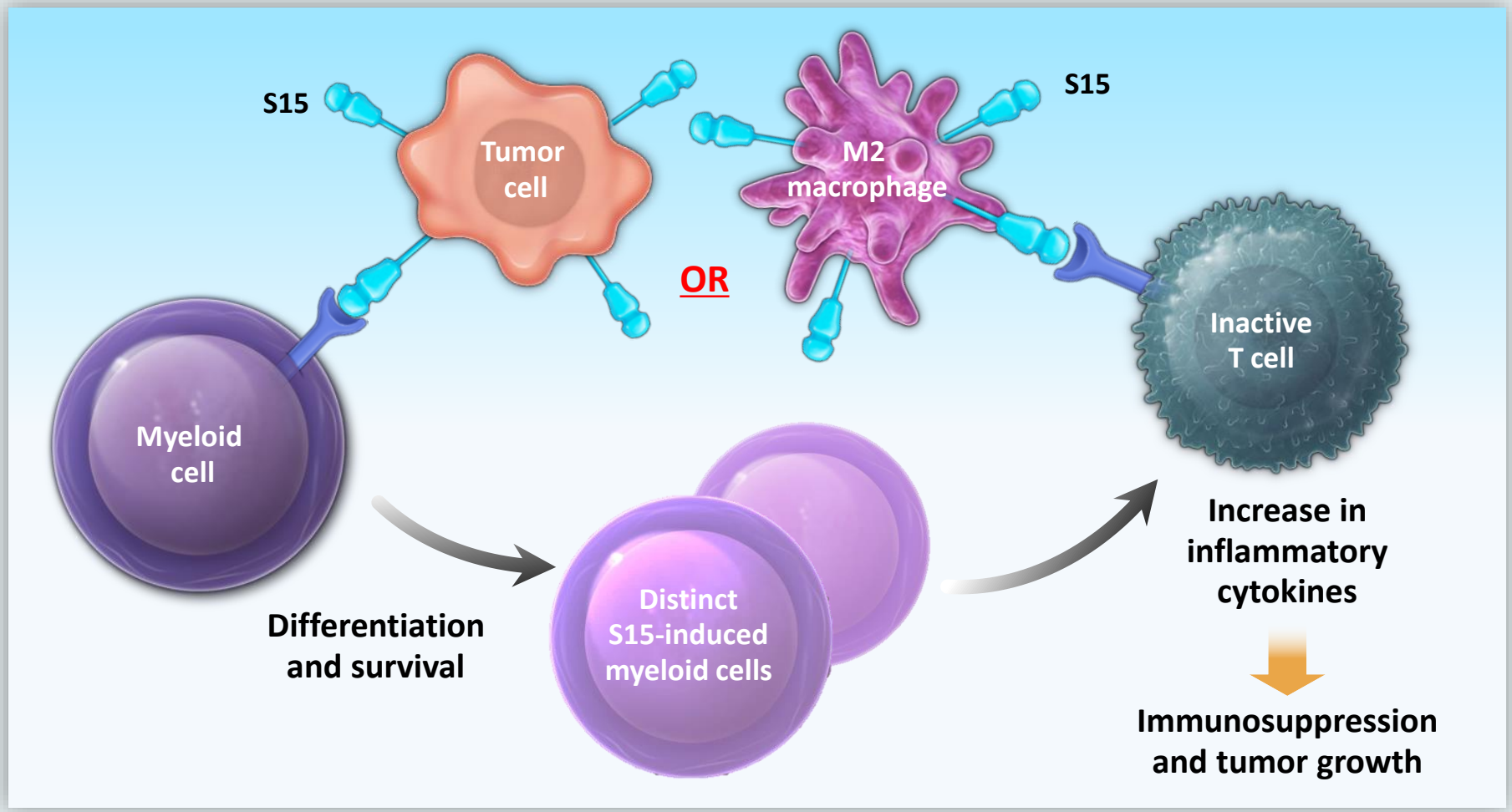
FUNCTION

Potently Suppresses
T Cell Function



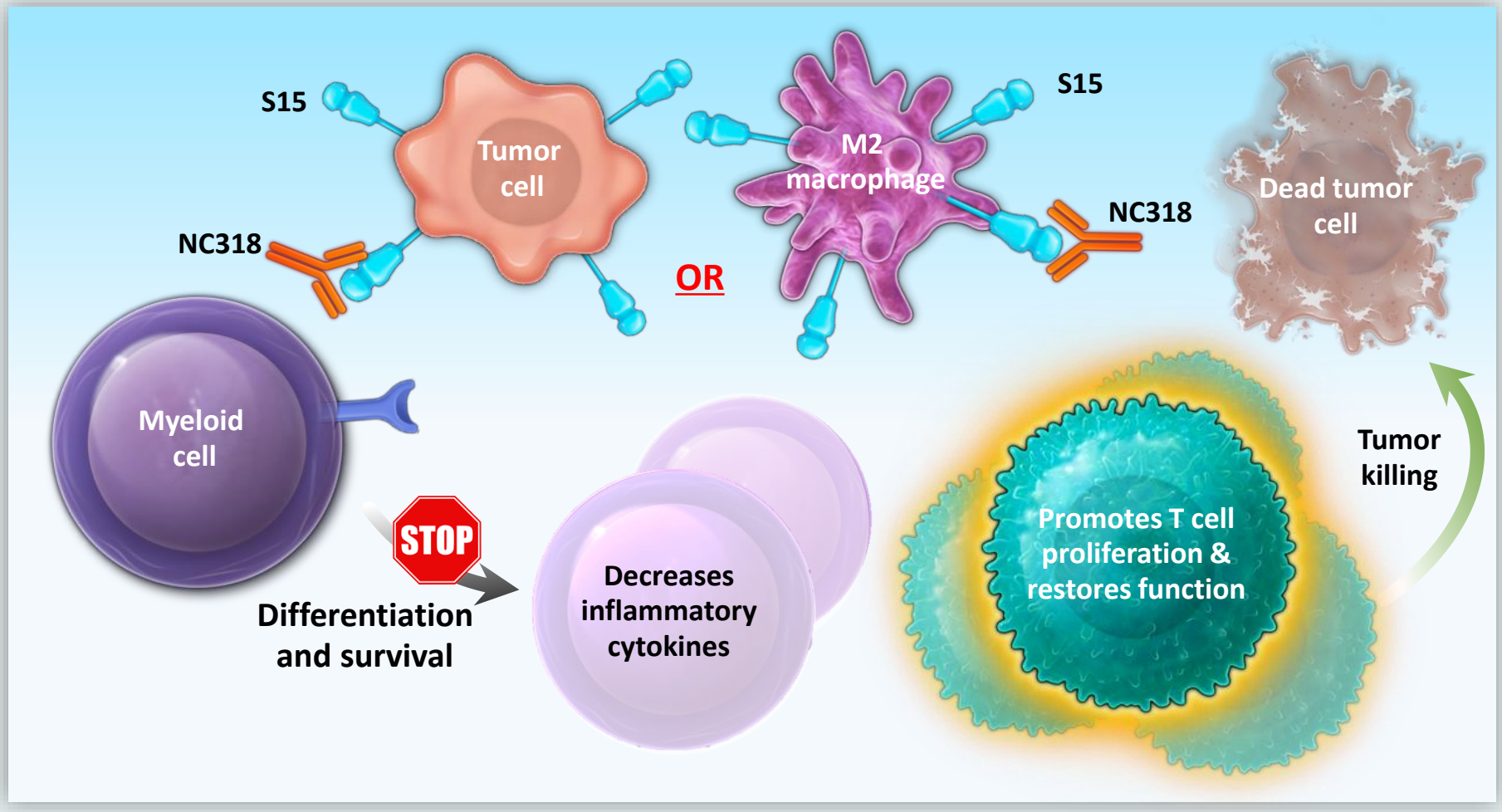
NextCure

S15 IS HIGHLY IMMUNOSUPPRESSIVE IN THE TME OF MULTIPLE TUMOR TYPES



NextCure

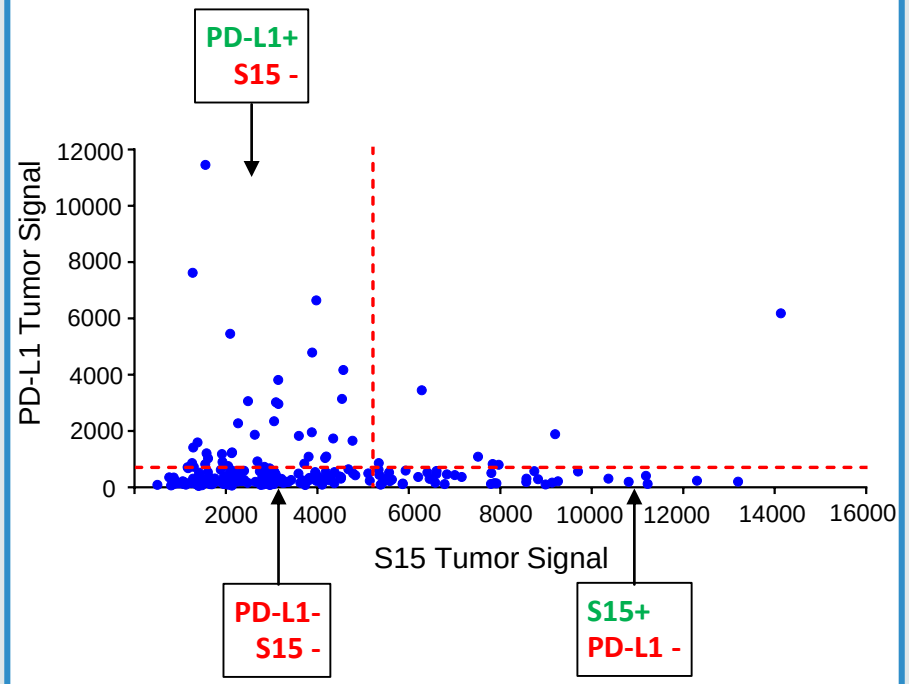
NC318 IS DESIGNED TO BLOCK IMMUNOSUPPRESSIVE ACTIVITY INDUCED BY S15



NextCure

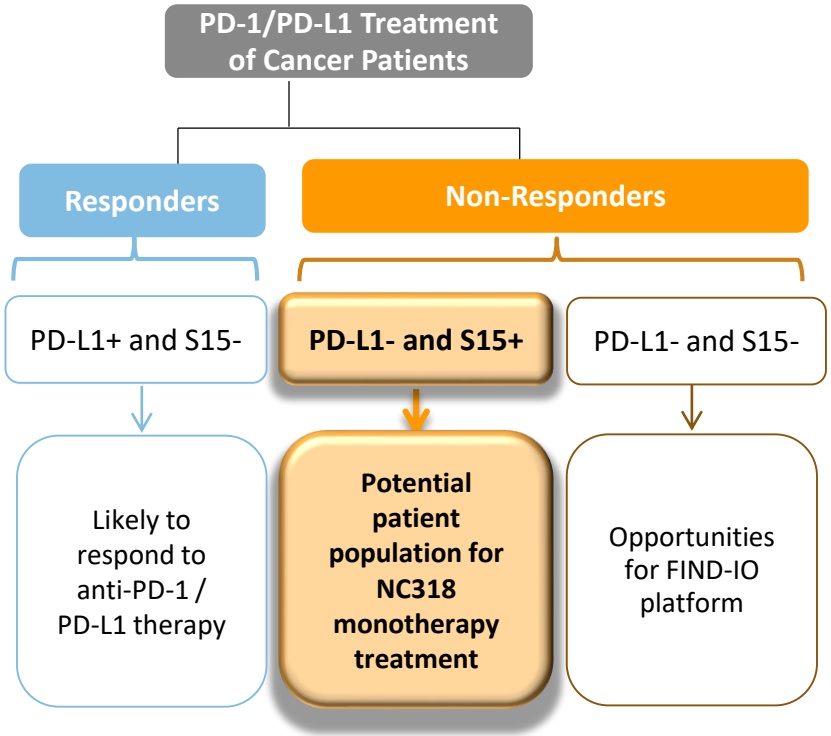
NC318: A POTENTIAL TREATMENT OPTION FOR PD-1/PD-L1 NON-RESPONDERS

S15 AND PD-L1 EXPRESSION GENERALLY DO NOT OVERLAP IN NSCLC TUMORS*



*>200 NSCLC samples in preclinical research
Wang et al., Nat Med 2019 Mar 4
Toki et al., AACR Poster 3151 2019

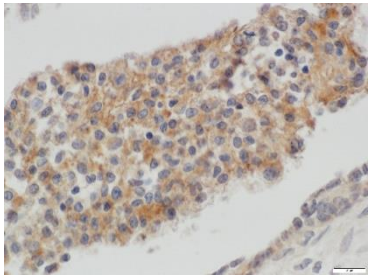
POTENTIAL NEW TREATMENT OPTIONS FOR PD-1/PD-L1 NON-RESPONDERS



S15 IS CLINICALLY AND FUNCTIONALLY RELEVANT

Clinical Relevance

S15 IN TUMORS



- Increased expression on tumor cells and immunosuppressive macrophages in multiple cancer types
- Minimal expression in normal tissues

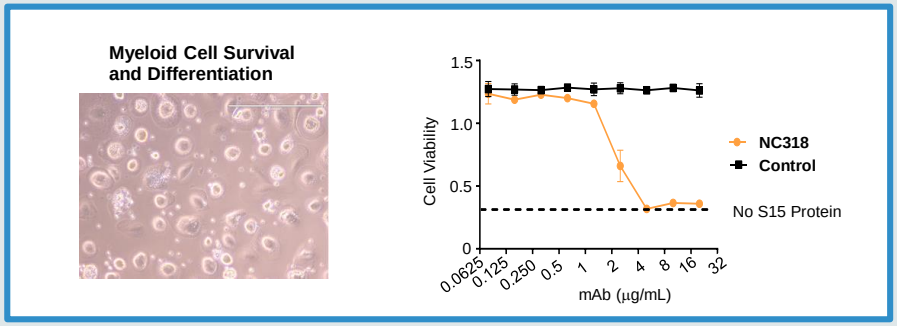
Functional Relevance

S15 KNOCK-OUT MODEL

- S15-deficient mice showed
  - Enhanced antigen-specific T cell responses *in vivo*
  - Delayed tumor progression
  - Increase in survival

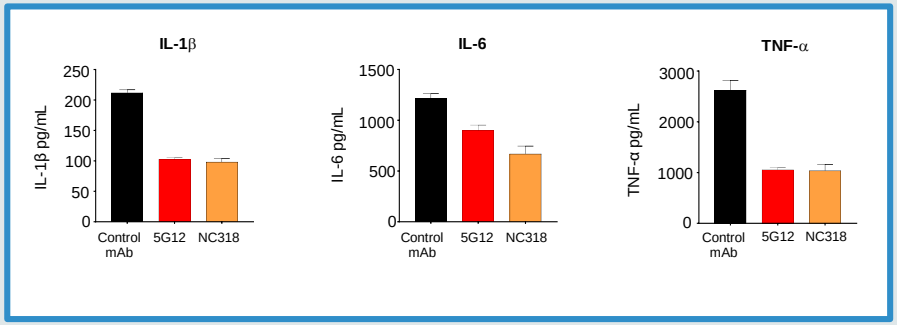
NC318 RESTORED IMMUNE FUNCTION *IN VITRO*

INHIBITED
Myeloid Cell Differentiation and Survival



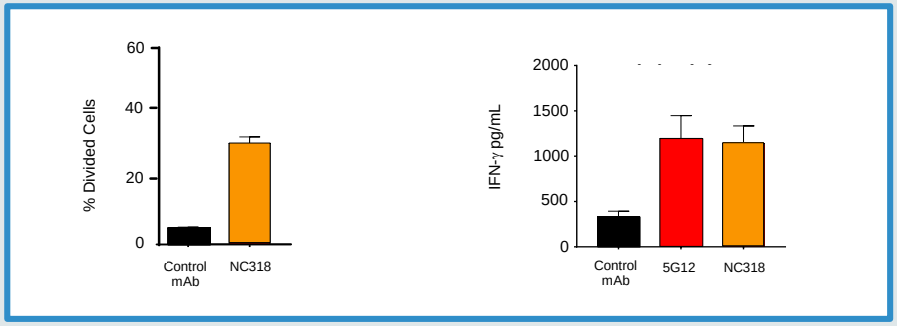
Blocked survival of myeloid cells

DECREASED
Pro-Inflammatory and Pro-Tumorigenic Cytokines



Decreased IL-1β, IL-6 & TNF-α

PROMOTED
Tumor-Specific T Cell Function

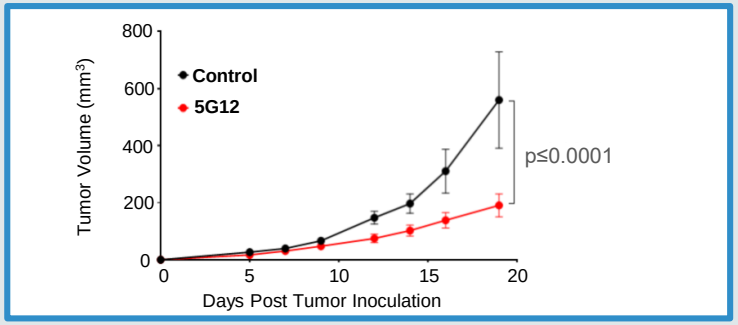


Increased T cell proliferation & IFN-γ production

NextCure

NC318* HAS SHOWN MONOTHERAPY ACTIVITY IN A NUMBER OF ANIMAL MODELS

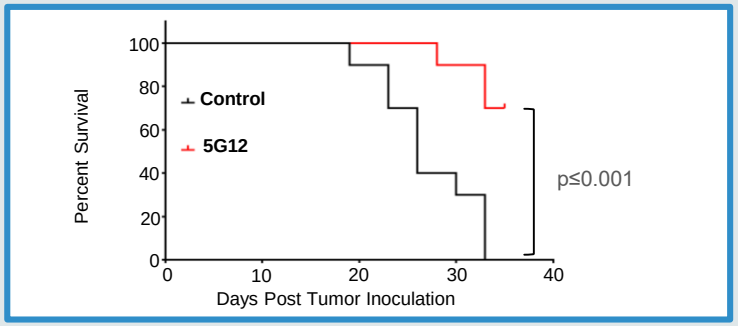
REDUCED
Tumor Growth



CT26 tumor model

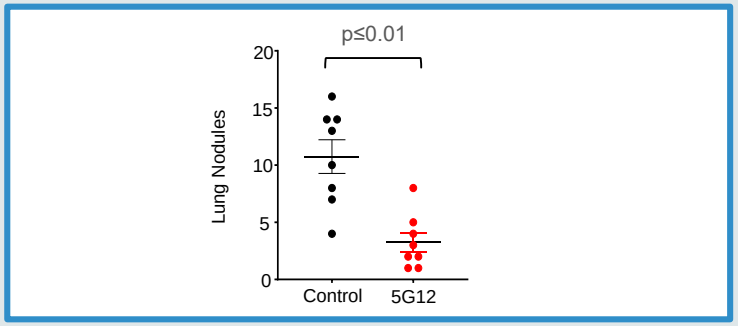
First 2 doses at 20 mg/kg followed by 10 mg/kg, Q4D, 7 doses

INCREASED
Survival



CT26 tumor model

DELAYED
Lung Metastasis



MC38 tumor model

30 mg/kg, Q7D, 4 doses

*Murine surrogate is 5G12

NextCure

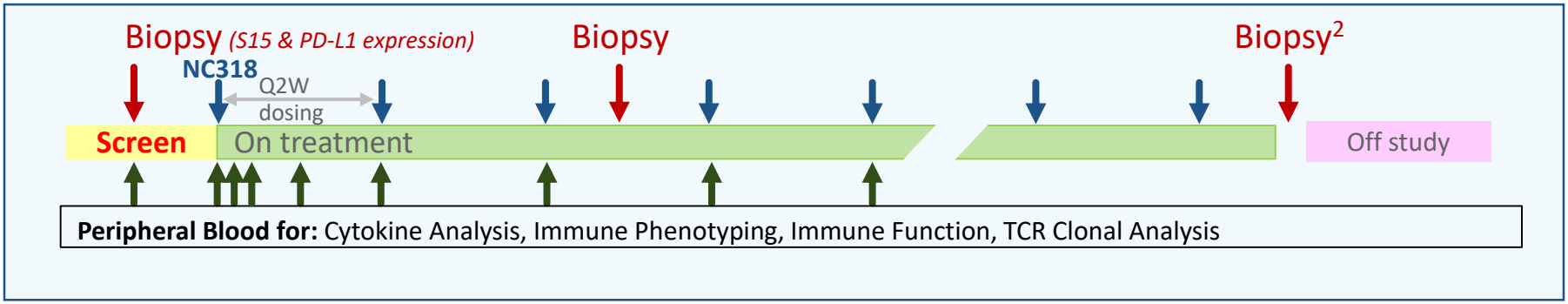
NC318 MONOTHERAPY TRIAL UNDERWAY DESIGNED FOR RAPID PROOF-OF-CONCEPT

PHASE 1

- Opened in 4Q 2018; Complete in 4Q 2019
- Dose-escalation[1]
- Safety, tolerability, and biomarker readouts
- Advanced or metastatic solid tumors

PHASE 2

- Open in 1Q 2020; Complete in 4Q 2020
- Efficacy assessment
- Tumor types shown to have elevated S15 expression, including NSCLC, ovarian, and head & neck



(1) Dose escalation evaluates 6 dose cohorts (8 mg – 800 mg or approximately 0.1 - 10 mg/kg) administered every 2 weeks

(2) In Phase 2 portion of trial

NextCure

NC318 PHASE 1 TRIAL STATUS AS OF MARCH 31, 2019

ENROLLMENT

- 21 subjects dosed
- 4th dose cohort open
- 10 different tumor types
- Recruitment on schedule

SAFETY

- No dose limiting toxicities or drug-related SAEs
- 1 transient elevation of amylase (grade 3) and lipase (grade 4) that was deemed probably related to NC318(1)
- Possibly NC318-related AEs limited to transient asymptomatic lab findings or grade 1 events

RESPONSES

- Evaluations every 8 weeks
- 1 confirmed partial response
- 6 stable disease
- 6 progressive disease
- 8 subjects not yet evaluated

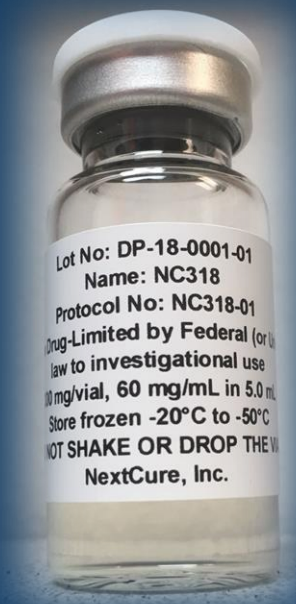
- Angeles Clinic
- MSKCC
- Next Oncology
- NYU
- Yale University

(1) The patient was asymptomatic and both elevations resolved without any interventions within 72 hours

NC318

DESIGNED TO RESTORE IMMUNE FUNCTION IN A HIGHLY SUPPRESSIVE TUMOR MICROENVIRONMENT

- ☑ MOA / Preclinical studies complete
  - Relieved S15-mediated inhibition of T cells
  - Increased IFN-γ production
  - Decreased inflammatory cytokines
- ☑ First-in-Human trial initiated in October 2018
- ☐ Complete Phase 1 and report topline data in Q4 2019
- ☐ Complete Phase 2 in Q4 2020



NextCure

NC410

DECOY HUMAN FUSION PROTEIN TARGETING THE TME

IND Filing Expected Q1 2020

TARGET

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

CELL TYPES

Dendritic cells and T cells

MOA

Promotes T cell function and dendritic cell activity

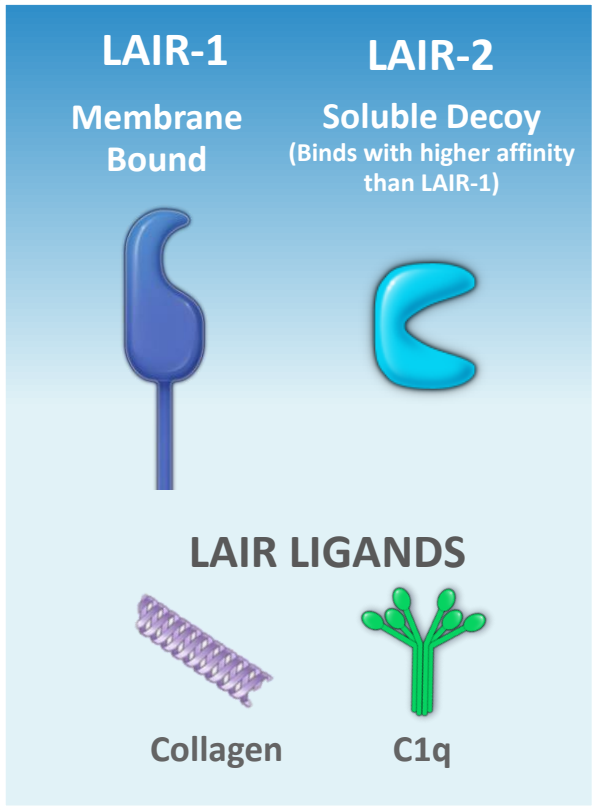
INDICATIONS

Advanced or metastatic solid tumors

LAIR-1 & LAIR-2 FUNCTIONAL RELATIONSHIP

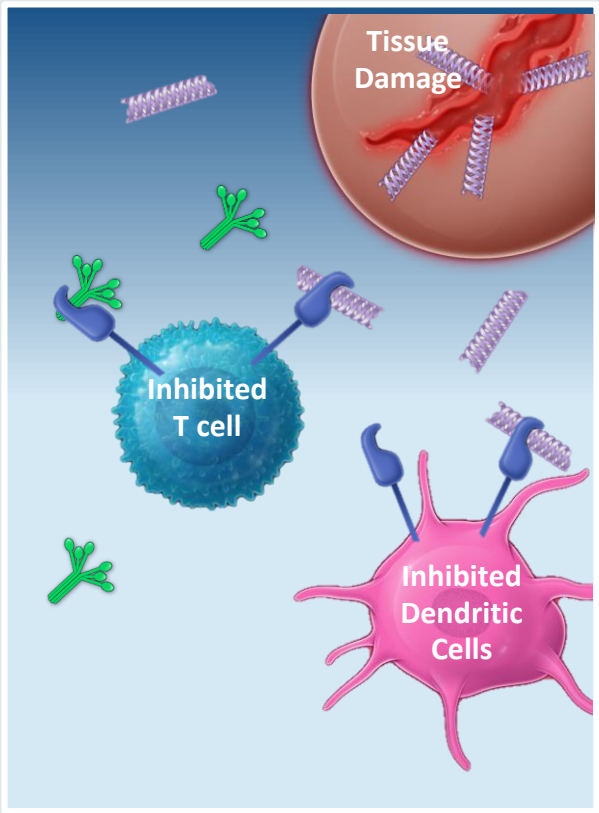
LAIR & LIGANDS

LAIR-1 and LAIR-2 bind collagen and C1q



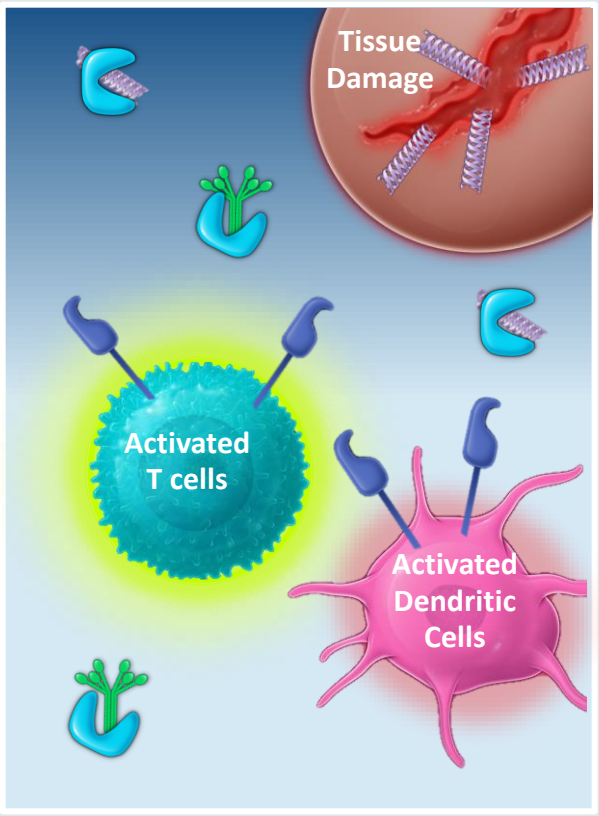
LAIR-1

Ligands are expressed in response to inflammation & inhibit immune function



LAIR-2

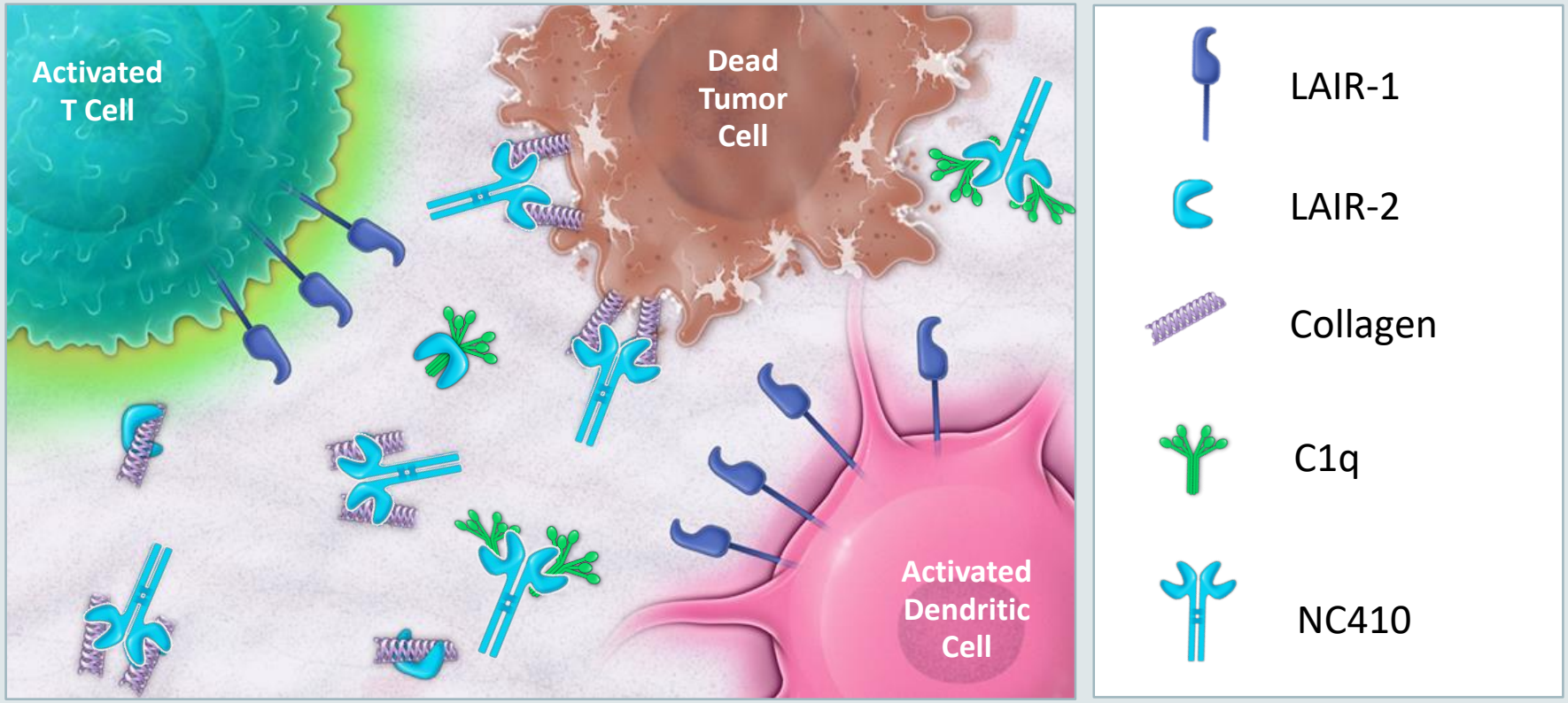
LAIR-2 modulates LAIR-1 mediated inhibition



NextCure

NC410 IS DESIGNED TO PREVENT IMMUNE SUPPRESSION CAUSED BY LAIR-1

NC410 is a Fusion Protein of LAIR-2 and a Decoy for LAIR-1

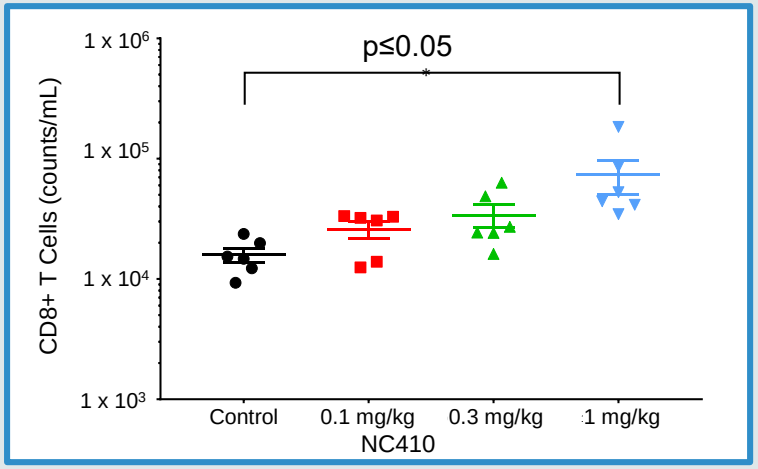


NC410 Promotes T Cell Function and Dendritic Cell Activation

NextCure

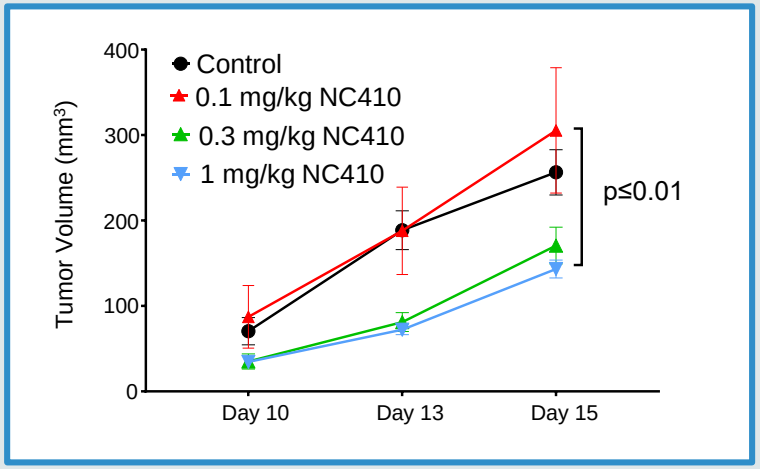
NC410 ENHANCED T CELL EXPANSION AND RELIEVED IMMUNOSUPPRESSION

BLOCKED
Suppression



Human CD8+ T cell expansion *in vivo*

DECREASED
Tumor Volume

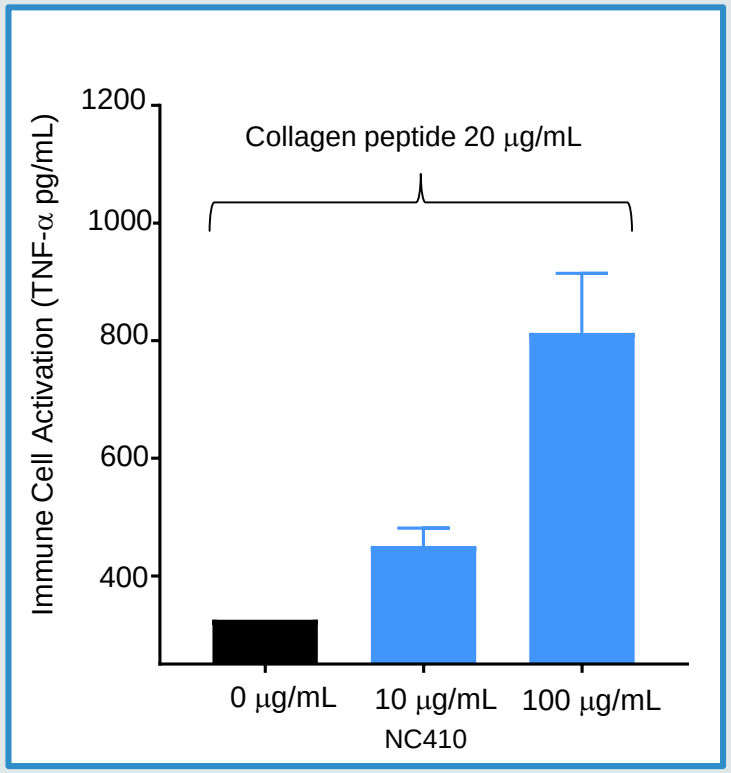


Human PBMCs in mice: CD8+ T cell activity decreased tumor volume

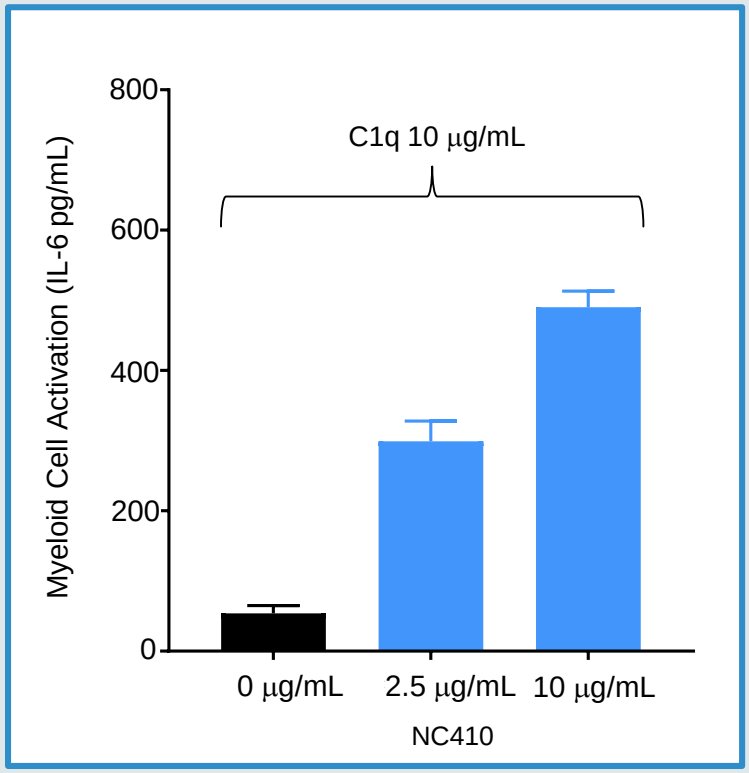
NextCure

NC410 PROMOTED IMMUNE CELL ACTIVATION IN THE PRESENCE OF COLLAGEN AND C1Q

REVERSED COLLAGEN SUPPRESSION OF HUMAN PBMCS



REVERSED C1Q SUPPRESSION OF HUMAN MYELOID CELLS



NC410 SUMMARY

- ☑ Based on normal immune regulatory mechanism
- ☑ Promoted T cell function and dendritic cell activity in preclinical studies
- ☑ Designed to alleviate tumor-mediated immunosuppression
- ☑ IND-enabling tox studies in progress
- ☑ cGMP manufacturing
- ☐ IND filing expected Q1 2020

FINDING SOLUTIONS
WITH A POWERFUL DISCOVERY ENGINE

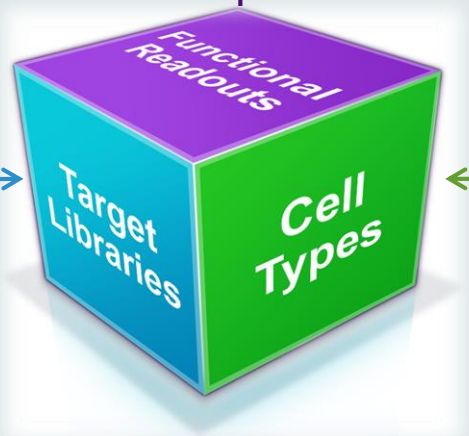
Functional, **I**ntegrated, **N**extCure **D**iscovery in **I**mmuno-**O**ncology

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

NextCure

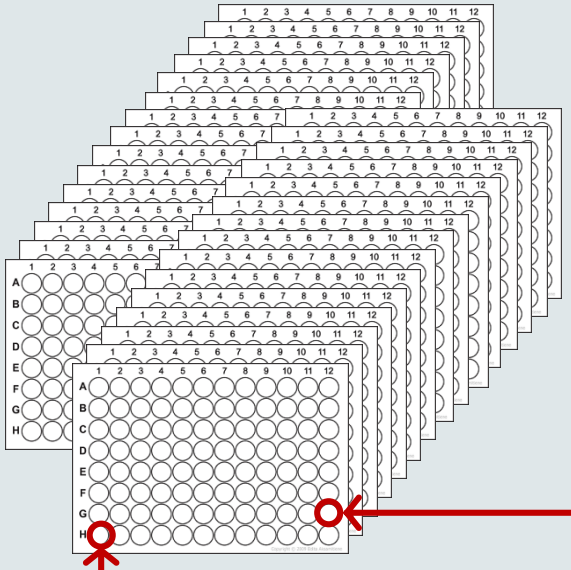
FIND-IO SCREENING METHODOLOGY

TARGET LIBRARY

+

HOST CELL

TRANSFECT



One Gene Per Well

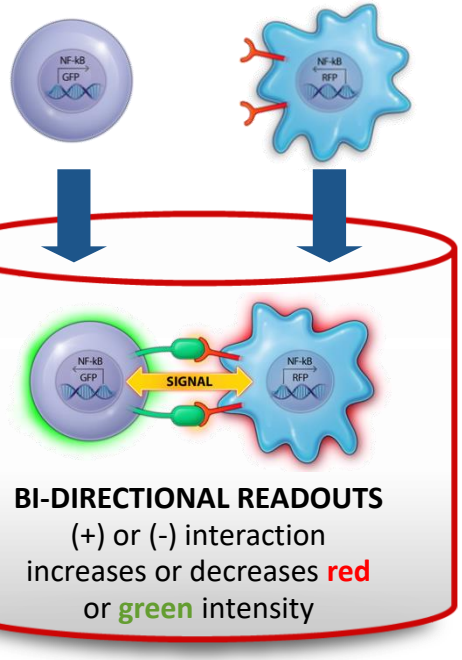
Plasma Membrane Proteins

Secreted Proteins

CELL TYPES

Immune Cell

Host Cell + Target Gene



BI-DIRECTIONAL READOUTS

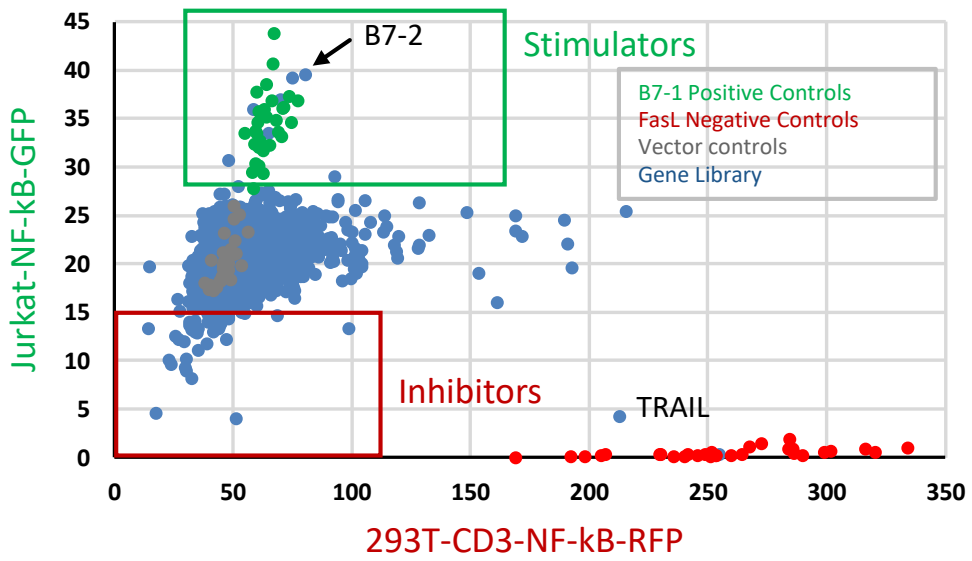
(+) or (-) interaction increases or decreases **red** or **green** intensity

FUNCTIONAL READOUTS

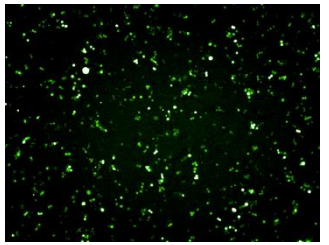
NextCure

JURKAT "T CELL LINE" SCREENING AND VALIDATING FIND-IO HITS

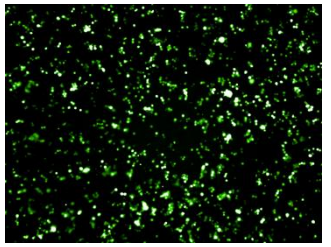
Identified Novel T Cell Stimulators and Inhibitors



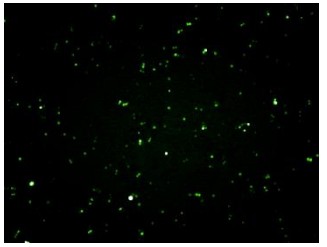
Vector Control



Stimulatory B7-2



Inhibitory TRAIL

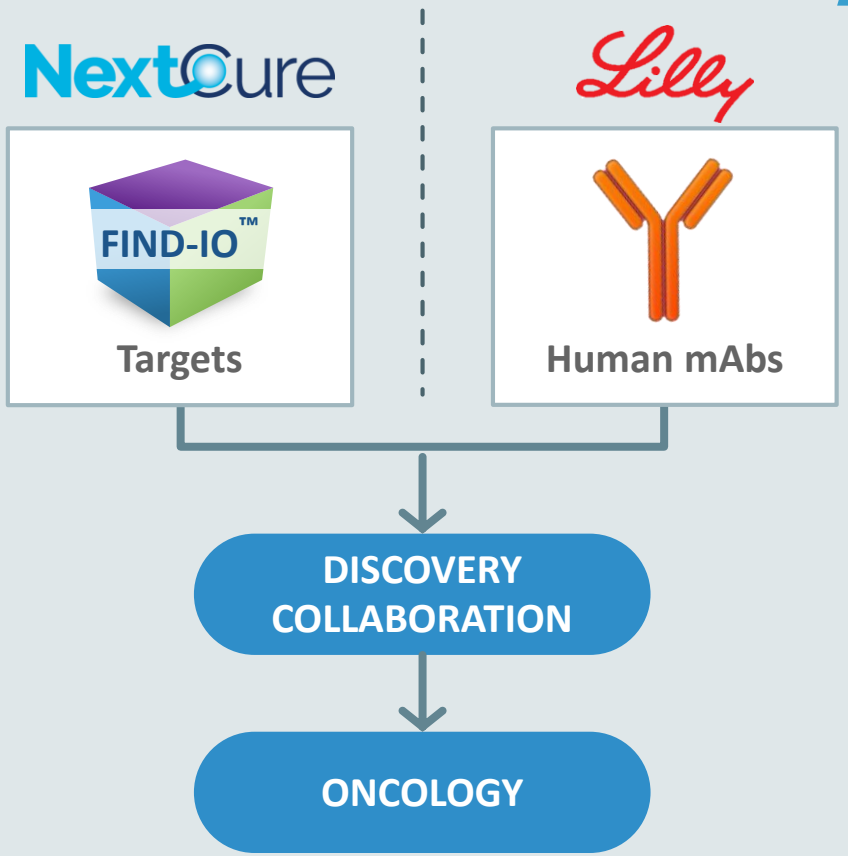


REPRODUCIBILITY | **ROBUSTNESS** | **RELEVANCY**

NextCure

LILLY – NEXTCURE PARTNERSHIP TO VALIDATE PLATFORM AND APPROACH

Synergies



Overview

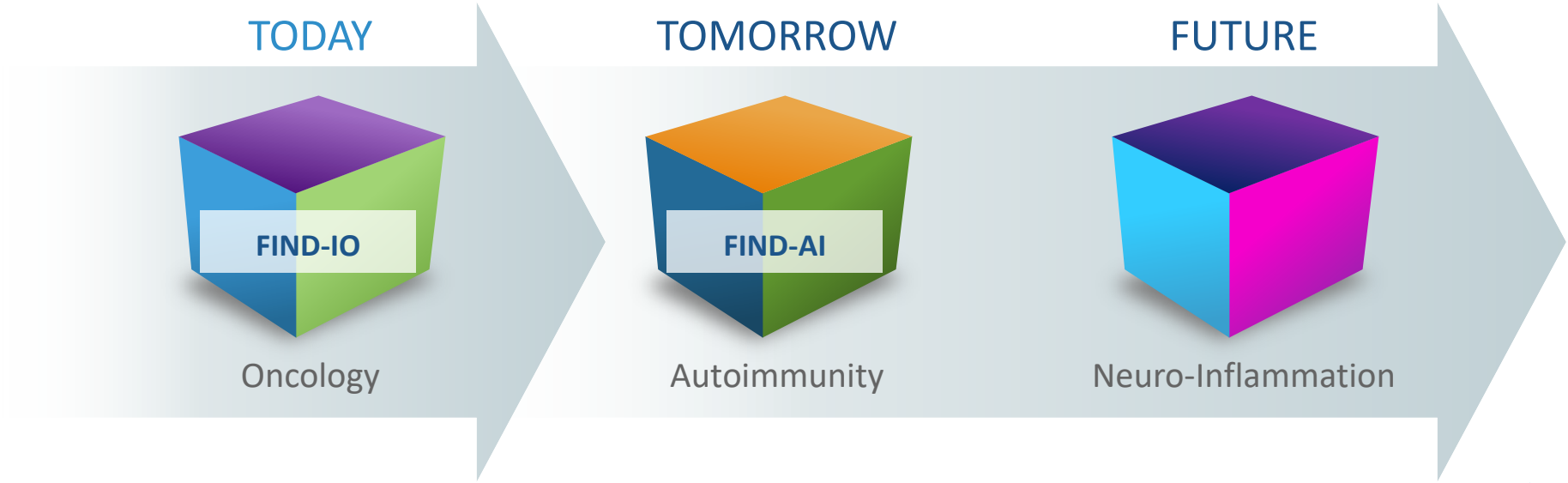
Structure

- Each party has options to exclusively license certain antibodies

Terms

- Upfront: $25M
- Equity investment: $15M
- R&D support
- Option payments
- Development & sales milestones
- Royalties

DIVERSIFICATION BEYOND ONCOLOGY



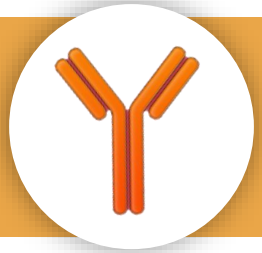
Gene Libraries

Immune Cells

Functional Screening

NextCure

ANTICIPATED NEAR-TERM MILESTONES



NC318

- Complete Phase 1 and report topline data in Q4 2019
- Complete Phase 2 in Q4 2020

NC410

- Complete IND-enabling tox studies
- File IND in Q1 2020

DISCOVERY

- Identify novel targets and initiate validation

NextCure

Committed to Addressing the Unmet Needs of Cancer Patients With New Solutions

FOCUSED	PROVEN	INNOVATIVE	EXPERIENCED	FUTURE
Approach	Momentum	Platform	Team	Deliverables