ReCode THERAPEUTICS

NON-CONFIDENTIAL

Corporate Overview

September 2024

Investment highlights

Clinical Programs

- **Two clinical programs (cystic fibrosis and primary ciliary dyskinesia)**
- **>$1B estimated peak sales** and no current treatments
- **Multiple near-term clinical value inflection points**

Platform

- **Novel SORT LNP platform** engineered for higher potency delivery beyond the liver
- **Precision extrahepatic delivery** with tunable tissue specificity and cell tropism
- **Multiple routes** of administration

Experienced Team & Syndicate

- **Deep expertise** in genetic medicine, LNP delivery and rare disease
- **$370M raised** from **blue-chip financial and strategic investors**

Raising **$50-75M Series C** ahead of planned 2025 IPO

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Experienced genetic medicines team and strong investor syndicate

Deep expertise in genetic medicine; $370M raised from blue-chip financial and strategic investors

Team

Shehnaaz Suliman, MD, MBA, MPhil
CEO

alector · Roche · Genentech · GILEAD

David Lockhart, PhD
President and CSO

TranscriptTx · Amicus Therapeutics · ambit · Affymetrix

John Matthews, MD, PhD
CMO

23andMe · aimmune · Genentech · GSK

Marco Weinberg, PhD
SVP, Head of Research

AskBio · CSL · VERTEX

Jessica Couch, PhD, DABT
SVP, Early Development

genzyme · Genentech

Ariel Kantor, PhD
SVP, Business & Corporate Development

OXFORD SCIENCE ENTERPRISES · EVERCORE

Erica Jefferson
SVP, Corporate Affairs

FDA · alector · Genentech · pharmacyclics

Vladimir Kharitonov, PhD
SVP, CMC

PACIRA · Skyepharma

Select Board Members

Dean Mitchell
Board Chairman

Peter Thompson
OrbiMed

Alan Colowick
Matrix Capital

Oleg Nodelman
EcoR1

Helen Kim
Vida Ventures

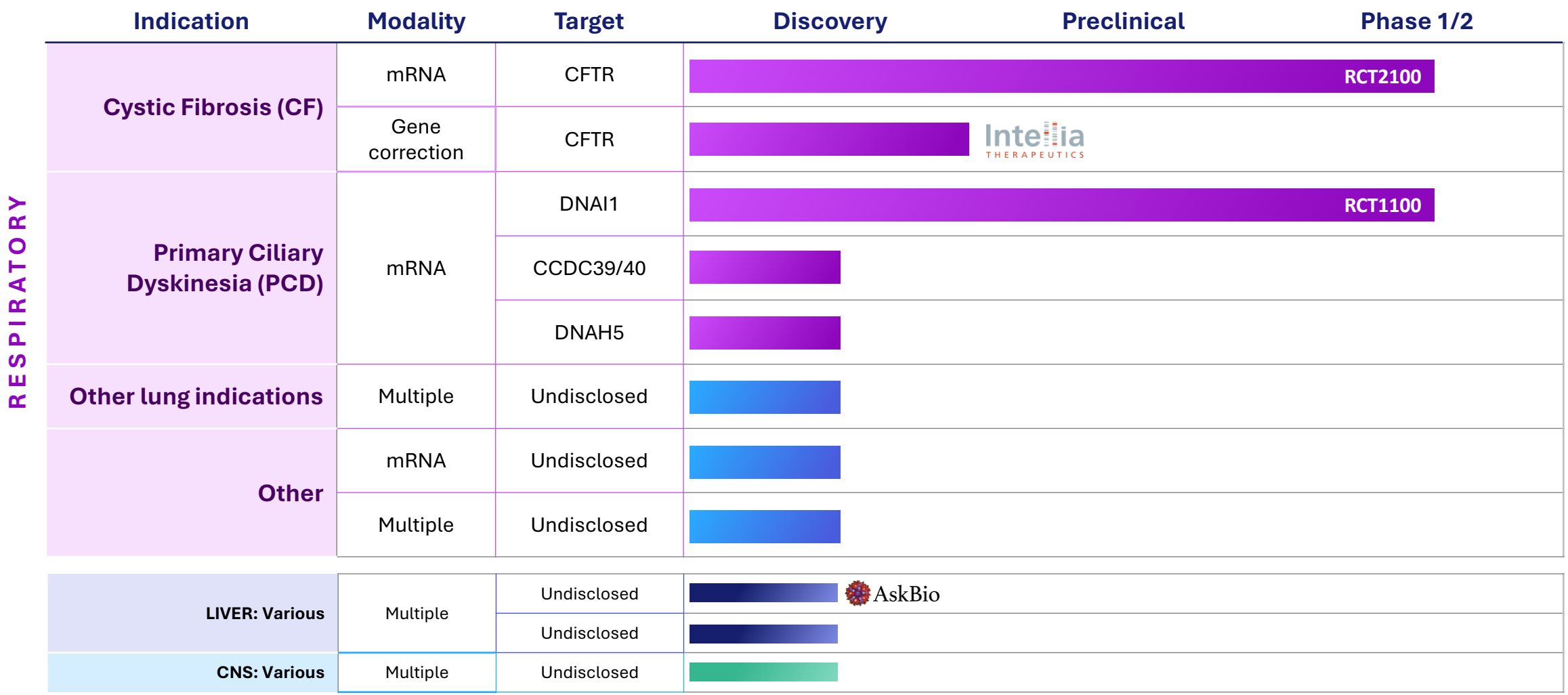
Investors

OrbiMed · AyurMaya Capital Management · EcoR1 Capital · leaps · Pfizer · Hunt Investment Group · Bioluminescence Ventures

MPM · TEKLA Capital Management LLC · Cystic Fibrosis Foundation · VIDA ventures · Osage University Partners · AMGEN · sanofi · Colle Ventures

ReCode Therapeutics

Diverse clinical and research pipeline with first and best-in-class opportunities



2024 progress in advancing to patients and partnerships

Program Updates

- **Cleared INDs** and **ex-U.S. regulatory submissions** for CF and PCD
- **Dosed 120 healthy volunteers** across CF and PCD studies
- **Established therapeutic doses for CF and PCD patient studies about to start**
- Completed **PCD Ph1a SAD study in PCD patients**

Platform/Partnering Updates

- First demonstration of **durable and persistent editing of lung epithelial cells,** published in *Science*
- Demonstrated high levels of **hepatic and extrahepatic delivery with IV SORT** administration
- Executed **gene editing collaboration with Intellia Therapeutics** for CF gene writing

Cash runway through Q3 ‘25

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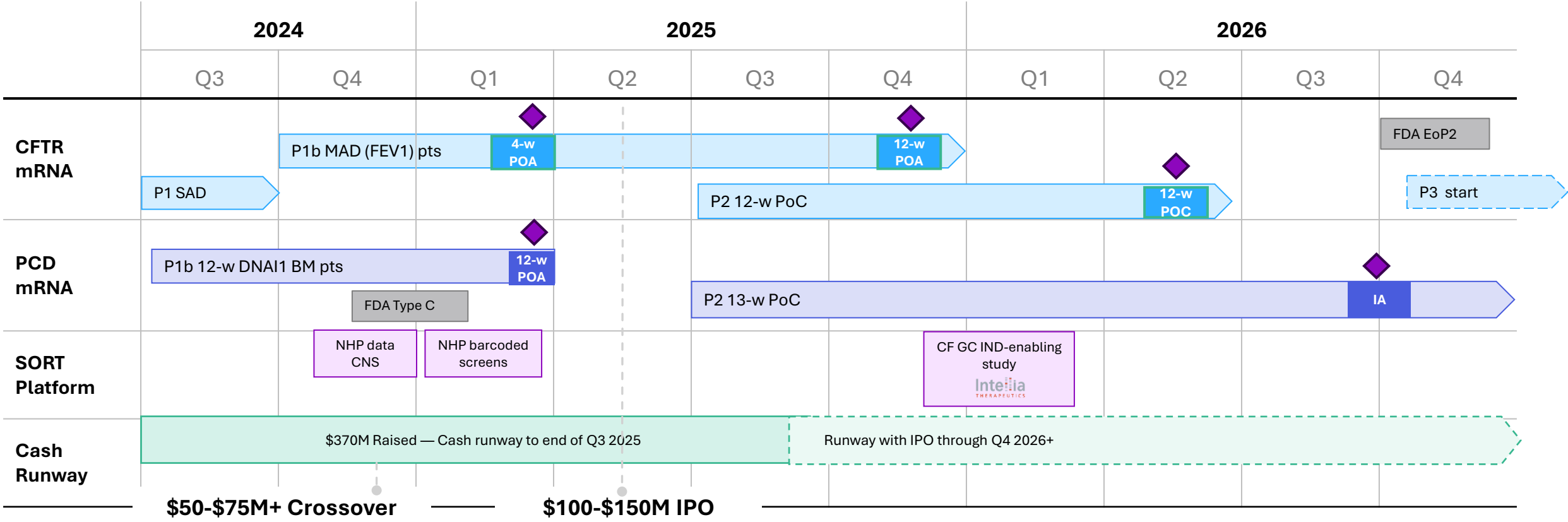
Significant opportunity with near-term, value-driving milestones

Clinical POA data anticipated across 2 clinical programs in 1H25



Financing and key value-creating milestones

- PCD and CF mRNA POA
- Platform NHP data
- 1 year of cash at IPO
- CF mRNA P2 PoC
- PCD P2 IA

Abbreviations: IND (investigational new drug application), IA (interim analysis to trigger start of confirmatory study for accelerated approval), GC (gene correction), MAD (multiple ascending dose), NHP (non-human primate), POA (proof of activity, e.g., convincing trend of clinically meaningful effect), PoC (proof of concept) and SAD (single ascending dose)

Cystic Fibrosis (CF): RCT2100 inhaled mRNA program

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RCT-2100: Differentiated and potential best-in-class inhaled mRNA treatment being evaluated for Class 1 CFTR mutant CF patients

Blockbuster opportunity supported by robust translational data with clinical POA anticipated in 1H25

CF is a progressive, fatal genetic disease characterized by persistent lung infections and respiratory decline

CF patients with Class 1 (nonsense) mutations have **no effective therapeutic options**

Initially focused on **10% of CF patients** with Class 1 mutations, ~**13K** patients worldwide

RCT-2100 is a highly differentiated potentially disease-modifying treatment

- **Ph1b SAD study** near completion (80 healthy volunteers dosed to date)
- **4-week Ph1b MAD study** in patients to initiate in Q3'24
- Preclinical data demonstrates **significant potency and efficacy in human bronchiel epithelial cell (hBE) assay and ferret model**

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RCT2100 targets 10%+ of CF patients with no treatments

130K patients worldwide with 10% of patients without a disease modifying treatment

>13K patients

not amenable to current therapies, including patients not addressable by current therapies & poor responders to CFTR modulators

>$1B **commercial opportunity**

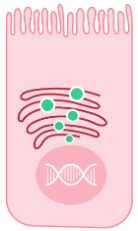
Class 1

Lack of protein production

G542X, R553X, W1282X*

31 years life expectancy

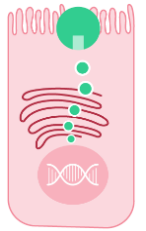
Class 2



Protein processing mutations

ΔF508, N1303K, G85E*

Class 3



Gating Mutations

G551D, V520F, S549R*

Class 4

Conduction mutations

R117H, R334W, S1235R*

Class 5

Insufficient protein mutations

A455E, 2657+5G>A*

53 years life expectancy

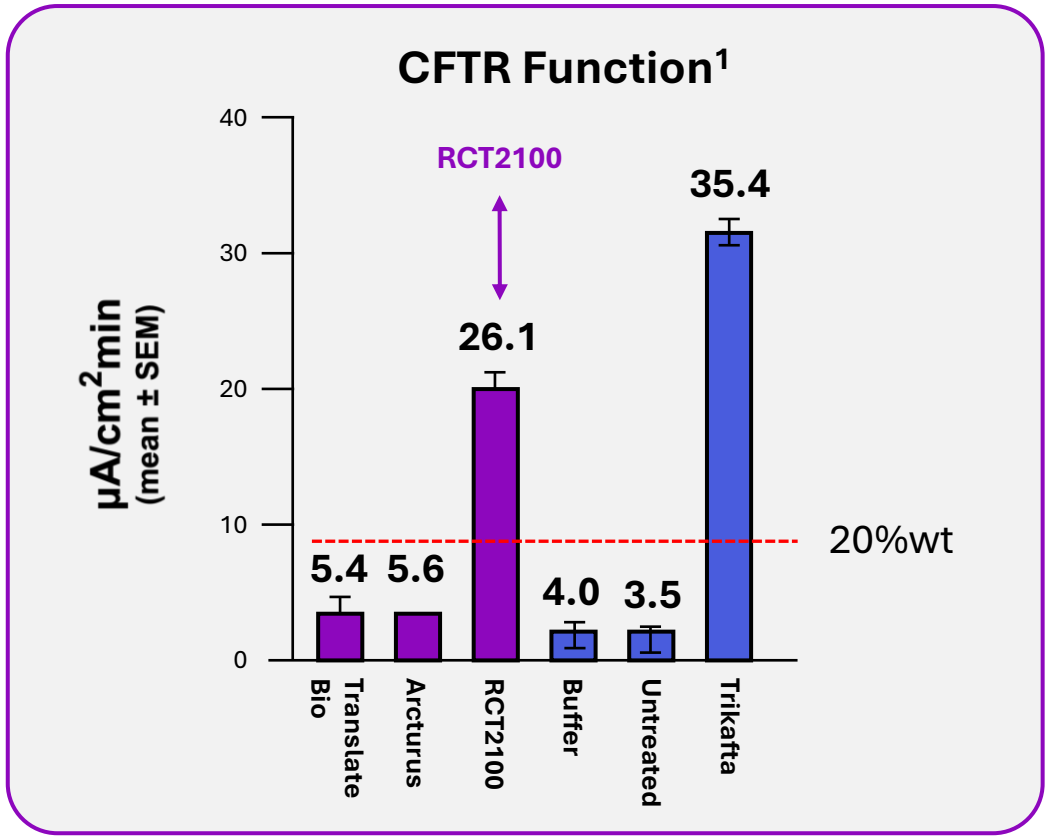
1. Cystic Fibrosis Foundation (CFF)

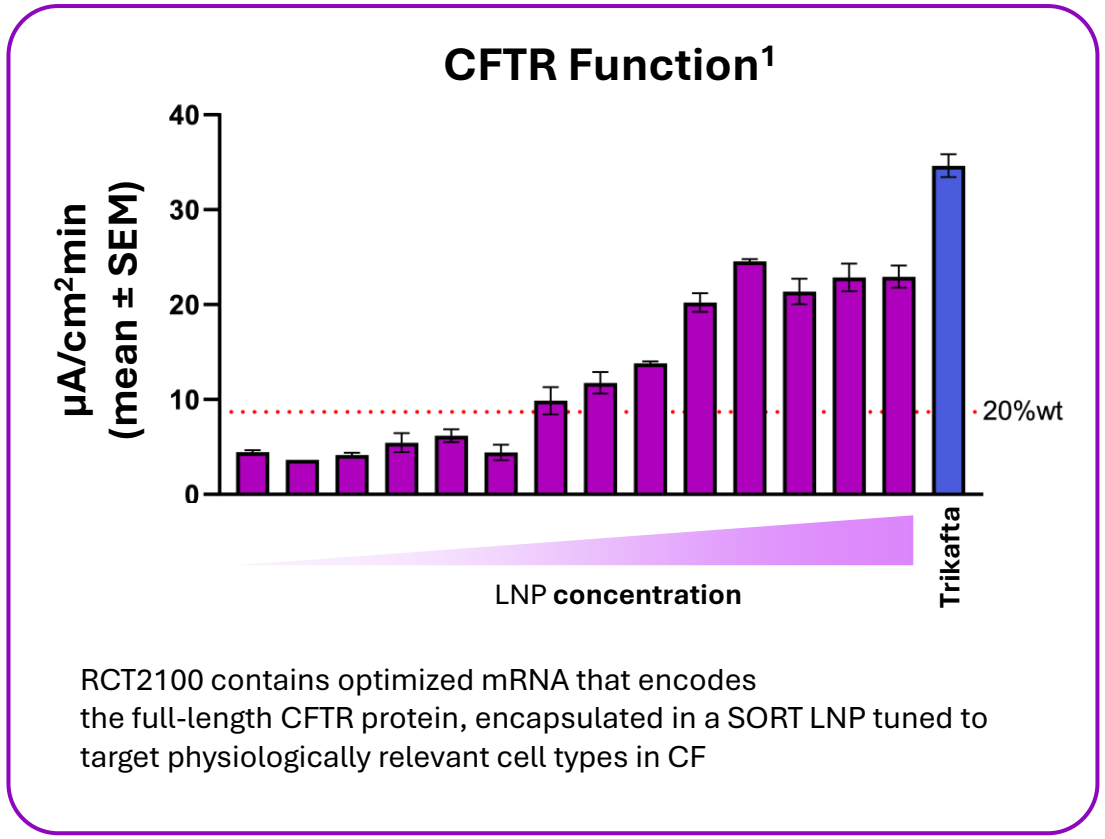
*Examples of class I – V mutations

*2022 CFF Patient Registry Annual Report, Hill et. al. *Journal of Cystic Fibrosis* 21 (2022)

RCT2100 restores CFTR function more potently than competitor formulations

5X+ greater potency in gold-standard hBE model





RCT2100 contains optimized mRNA that encodes the full-length CFTR protein, encapsulated in a SORT LNP tuned to target physiologically relevant cell types in CF

RCT2100 demonstrates potent efficacy in CF patient-derived, fully differentiated bronchial epithelial cells via apical delivery in the presence of mucus

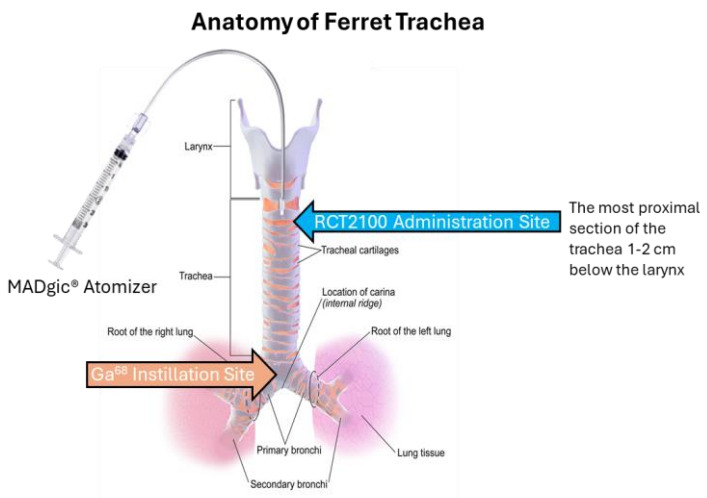
1. CFTR function measured as chloride flux AUC in fully differentiated, patient-derived F508del/F508del bronchial epithelial cells in presence of mucus.

* Translate, Arcturus and RCT2100 formulations dosed at 1 µg.

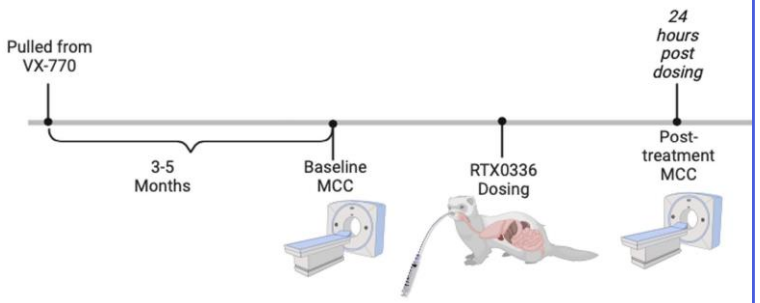
RCT2100 efficiently delivers to target cell types and penetrates through G551D CF ferret mucus

Genetic similarities and airway physiology of ferrets make them helpful predictors of human activity

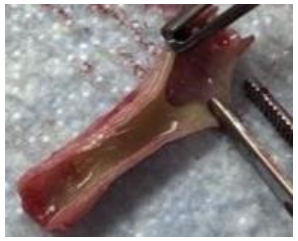
CF ferret tracheal mucociliary clearance assay is the gold standard *in vivo* model

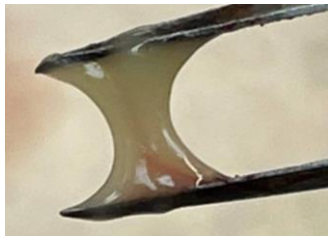


The most proximal section of the trachea 1-2 cm below the larynx



G551D CF Ferret Mucus

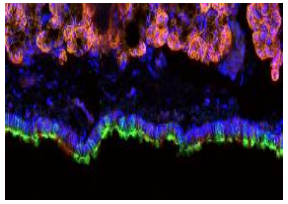


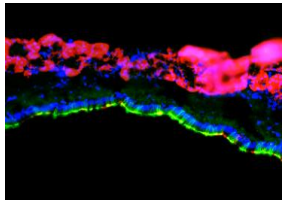


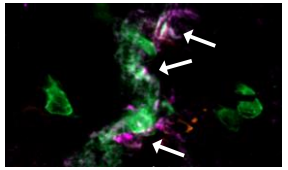
RCT21000 LNPs

Encapsulating Cre mRNA

CF Trachea







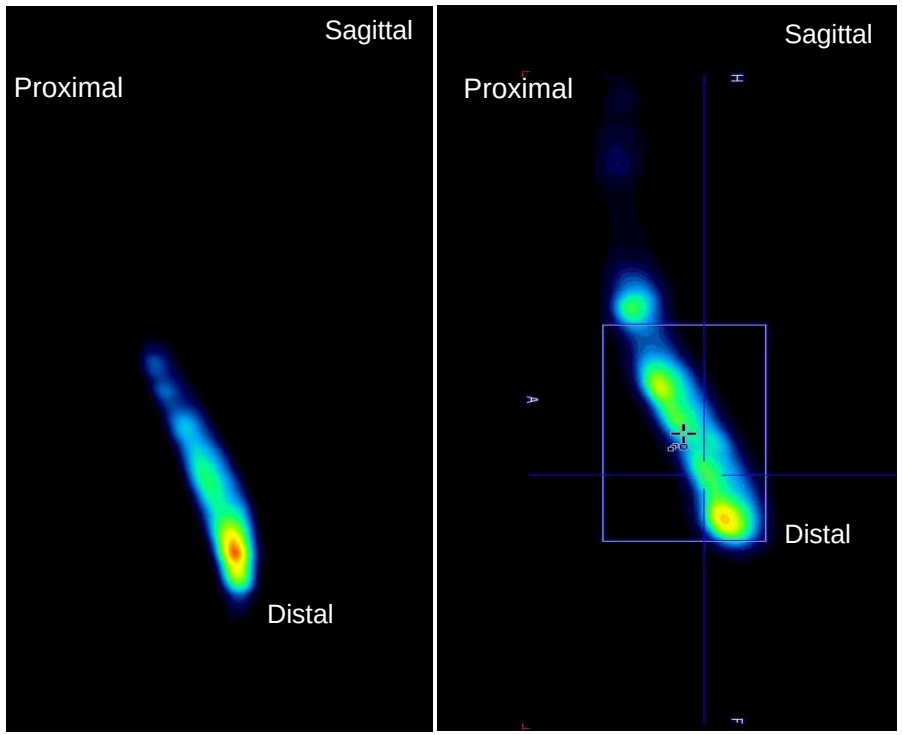
CRE Induced GFP
tdTomato
Nuclei (DAPI)

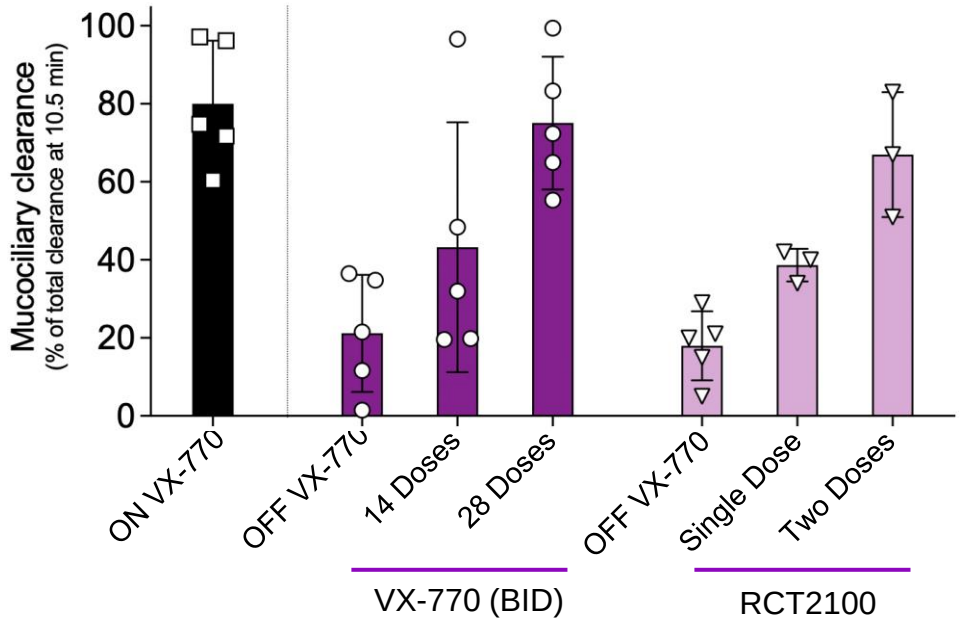
CRE Induced GFP
CFTR
Ionocytes (BSND)

Data generated at U Iowa Engelhardt lab

High level of CFTR-dependent mucociliary clearance observed within 24 hours

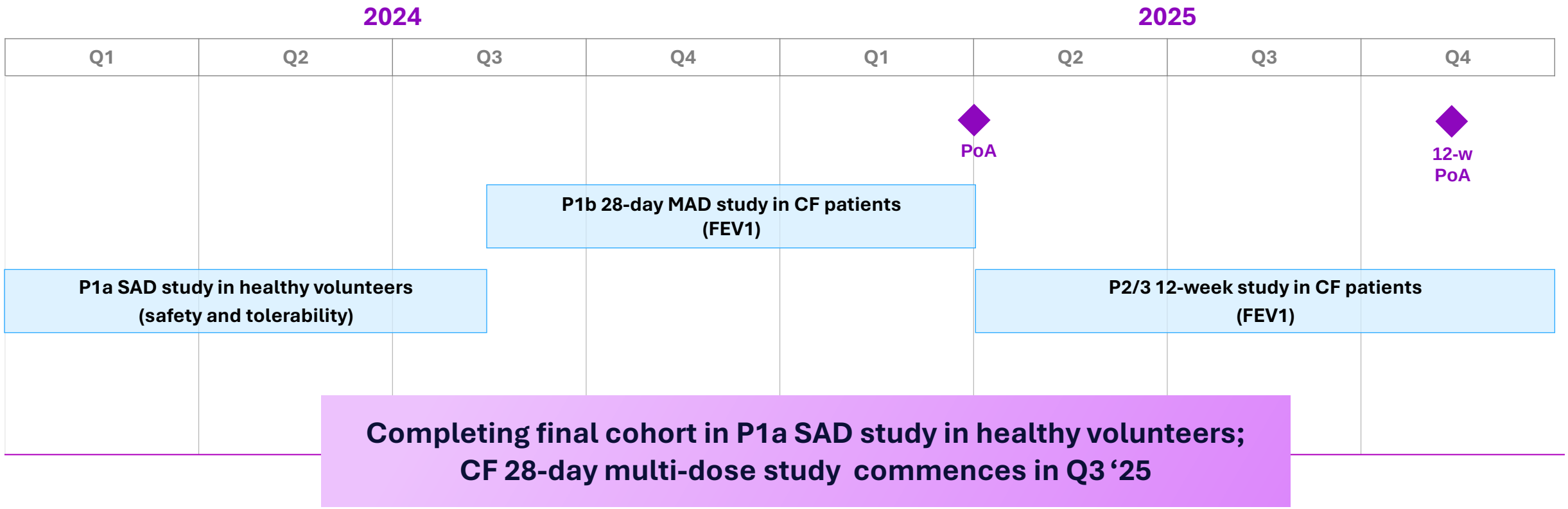
Robust delivery and efficacy in gold-standard in vivo model (CF ferret); delivery confirmed in NHPs





P1/2 program designed to deliver rapid clinical POA

Pending supportive P1b clinical POA data in 1H25, P2/3 study planned to initiate mid-2025



Primary Ciliary Dyskinesia (PCD): RCT1100 inhaled mRNA program

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RCT-1100: First-in-class inhaled mRNA therapeutic for PCD with DNAI1 mutations

Blockbuster franchise opportunity supported by robust translational data with clinical POA anticipated in 1H25

PCD is a rare genetic disorder that leads to chronic lung disease and bronchiectasis

RCT-1100 is a potential first-in-class treatment

PCD is caused by loss of function mutations in cilia cells causing **recurrent respiratory infections**

Orphan lung disease with **no competition**

- **SAD study nearly complete** (40 healthy volunteers and 9 PCD patients dosed to date)
- **12-w biomarker studies to initiate 3Q24 and produce clinical POA data 1H25**
- Designed to support **P2/3 study initiation mid-2025**
- FDA granted **Orphan Drug Designation** (ODD) for treatment of PCD

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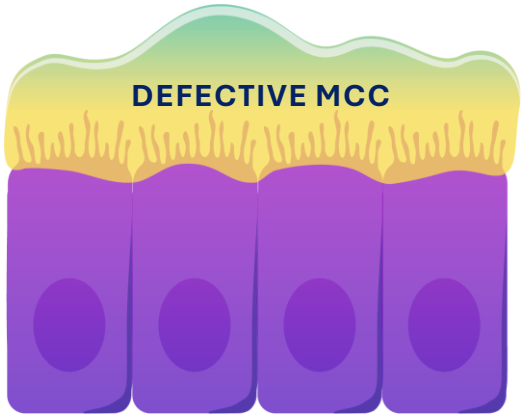
PCD is a high-morbidity orphan respiratory disease with no approved treatment

Primary Ciliary Dyskinesia caused by genetic mutations that **impair ciliary function**, resulting in **deficient mucociliary clearance (MCC)**, leading to chronic respiratory infections, bronchiectasis and loss of lung function

>100K patients
estimated prevalence across mutations in the U.S., UK and EU5[1]

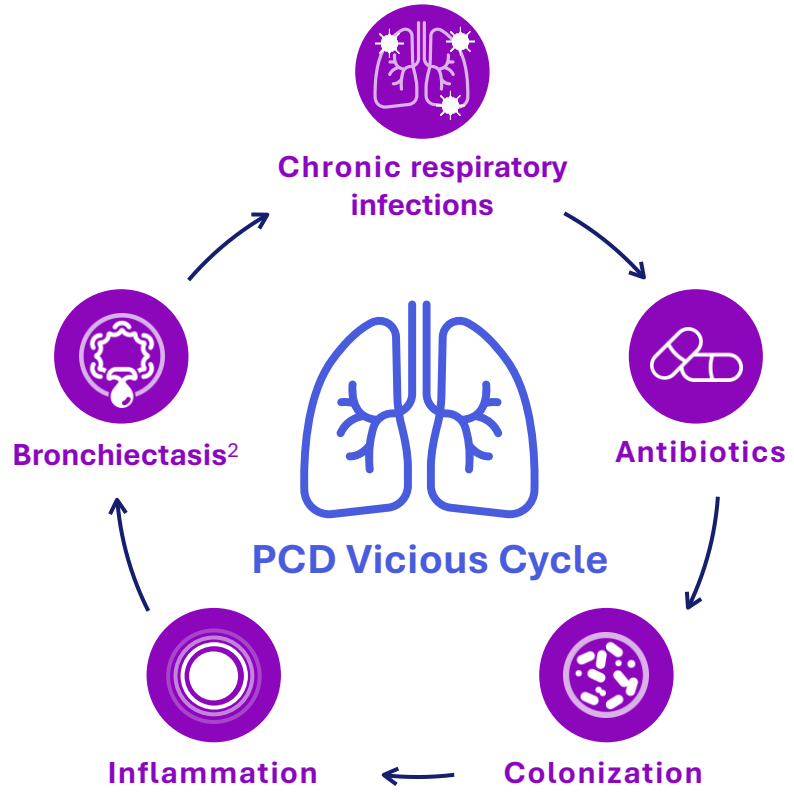
No approved treatments

$2B market
for most prevalent genes (DNA1, DNAH5, CCDC39/40)



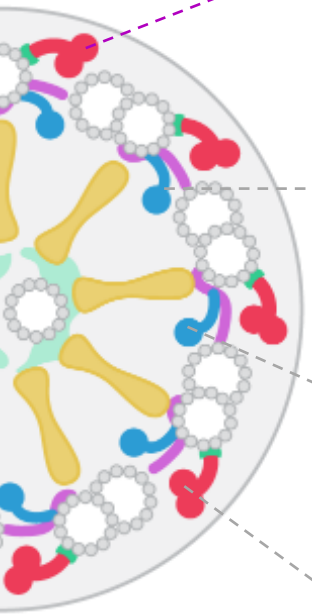
Mutations in genes cause dysfunctional cilia*

*Hair-like structures that line the upper and lower airways



[2]Permanent lung damage in **100**% of patients

PCD is a ~$2B franchise opportunity with no competition



		Patients, U.S. & EU5	Estimated Sales
RCT1100 ~7%	Outer dynein arm defects **DNAI1**	**~7K**	**~$440M**
~7%	Inner dynein/MTD defects **CCDC39**	~7K	~$440M
~3-4%	Inner dynein/MTD defects **CCDC40**	~3-4K	~$200M
~20%	Outer dynein arm defects **DNAH5**	~20K	~$900M

31-45K

patients

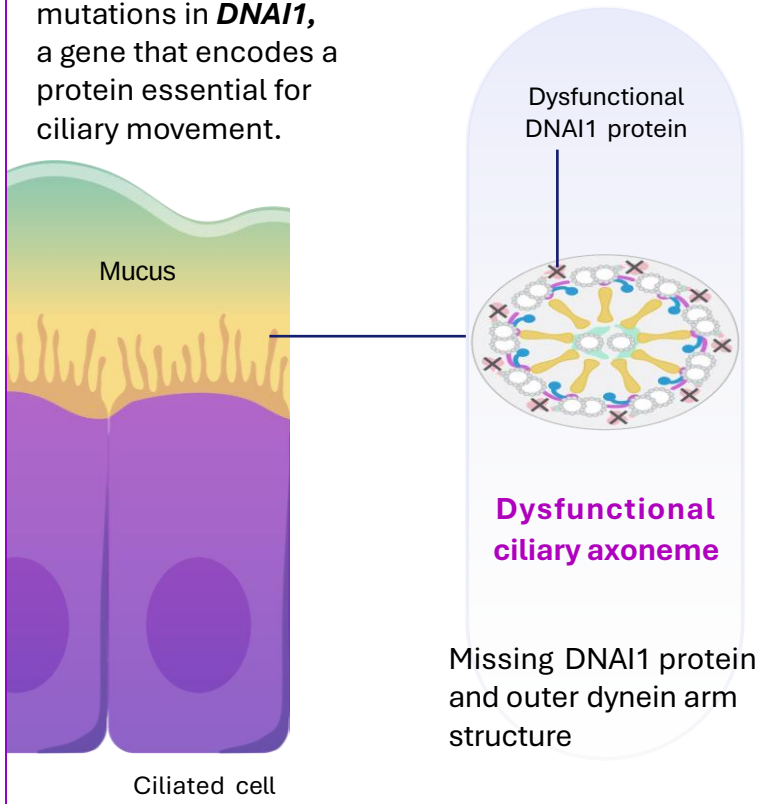
with mutations
in the 4 most prevalent
PCD genes

RCT1100 is an inhaled mRNA therapeutic targeting DNAI1 mutations

SORT LNP-encapsulated DNAI1 mRNA designed to restore MCC

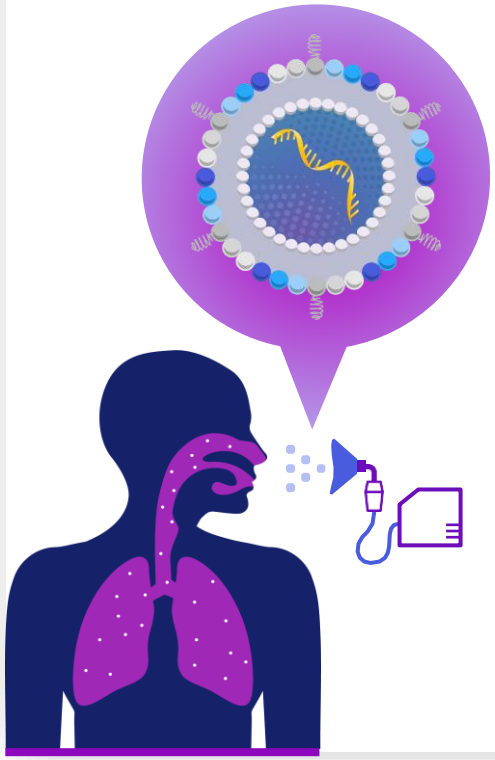
PCD

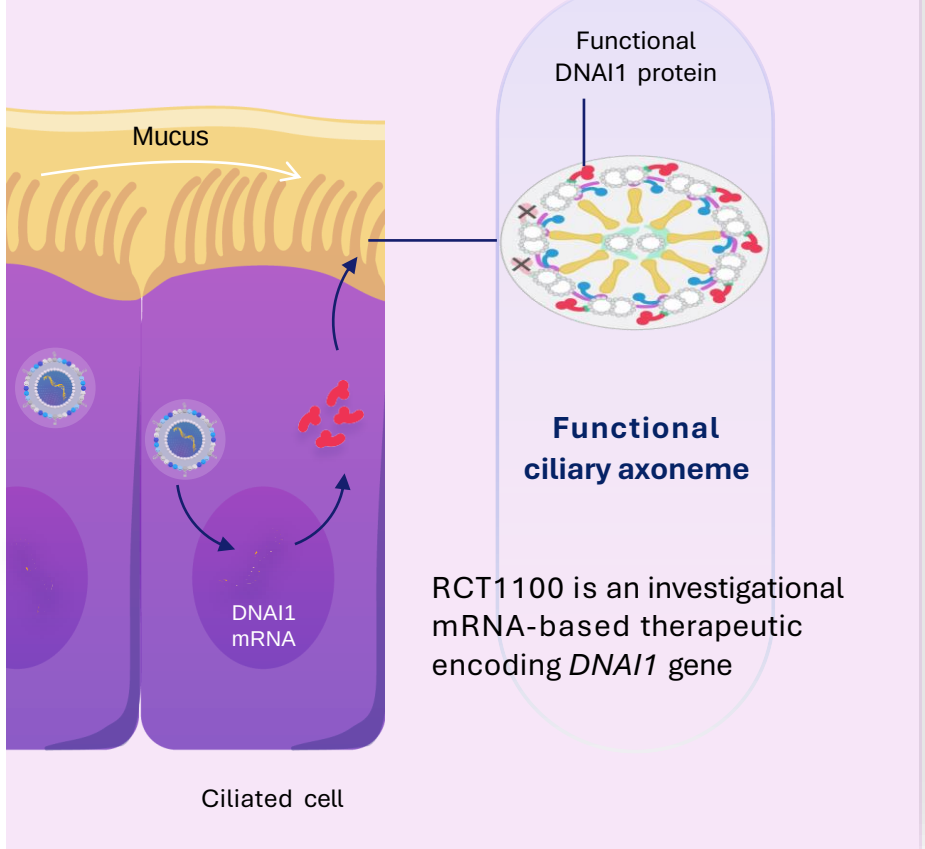
PCD is caused by pathogenic mutations in ***DNAI1,*** a gene that encodes a protein essential for ciliary movement.



Treatment

SORT LNP with *DNAI1*-mRNA

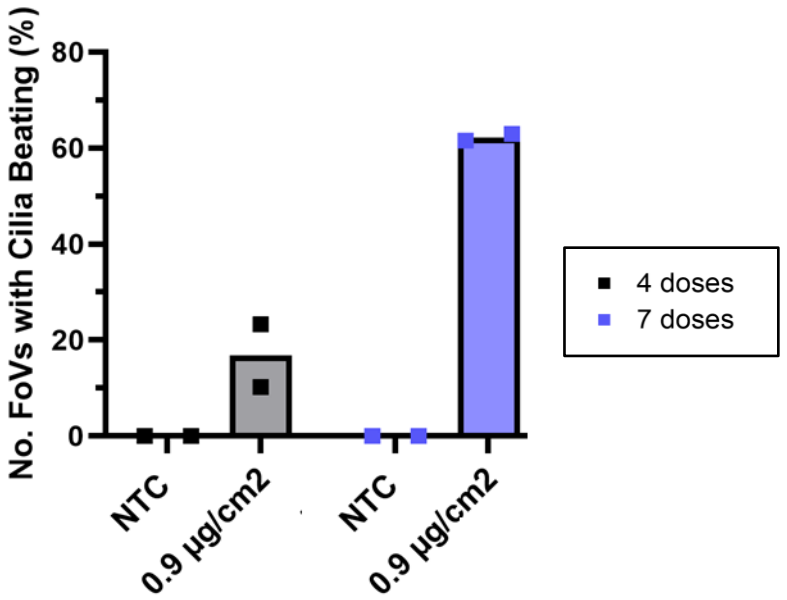




RCT1100 is an investigational mRNA-based therapeutic encoding *DNAI1* gene

RCT1100 restores DNAI1 protein and ciliary activity in patient nasal epithelial cells (hNEs)

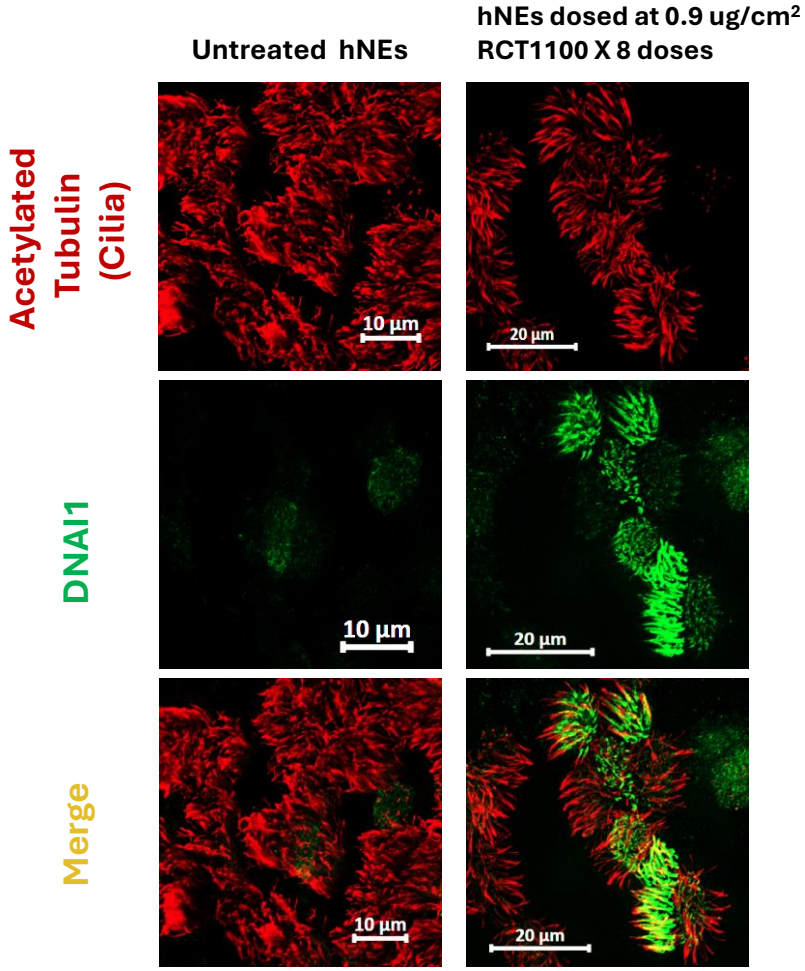
Increased Ciliary Activity Achieved with Repeated Nebulized Administrations



NTC – Non-Treated Control

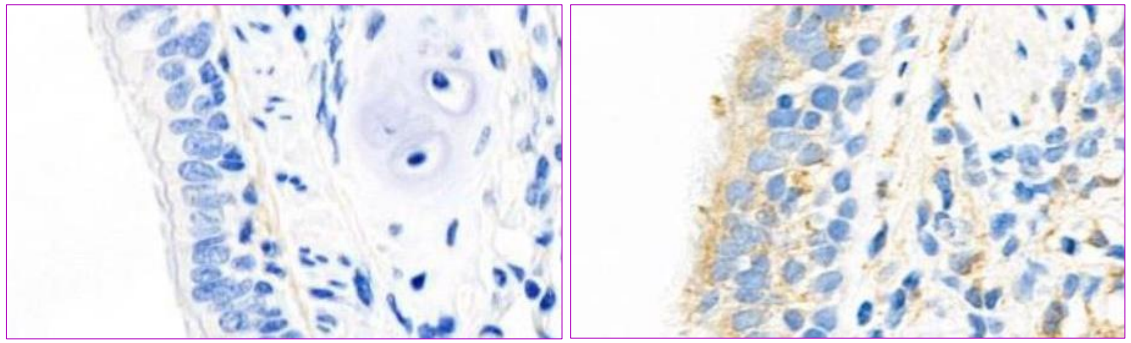
- Up to 60% of fields of view show ciliary beating
- 0.9 ug/cm^2 corresponds to ~3 mg nebulized dose

DNA1 Protein Expression Demonstrated in Cilia with Repeated Nebulized Administrations



Non-human primate data demonstrates increased expression of DNAI1 protein in target cells with repeated dosing

Protein level derived from mRNA delivered via nebulization increases with repeated administration and is dose-dependent

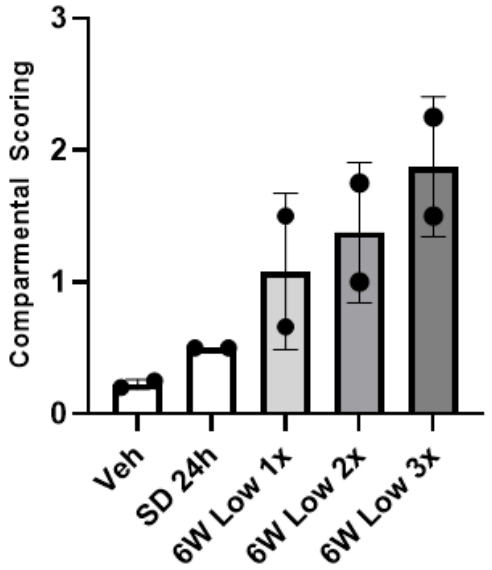


Vehicle Control

Low Dose (3x/week)

- Signal accumulation
- High protein expression detected in airway epithelial cells and cilia of NHPs after 6-week repeat-dose studies
- Detectable at low dose (0.14 mg/kg)

Semi-quantitative Scoring of DNAI1-HA in the NHP lung



Key -

0 = no signal

1 = mild signal, some epithelial cells

2 = 50% of airways indicate epithelial-specific signal

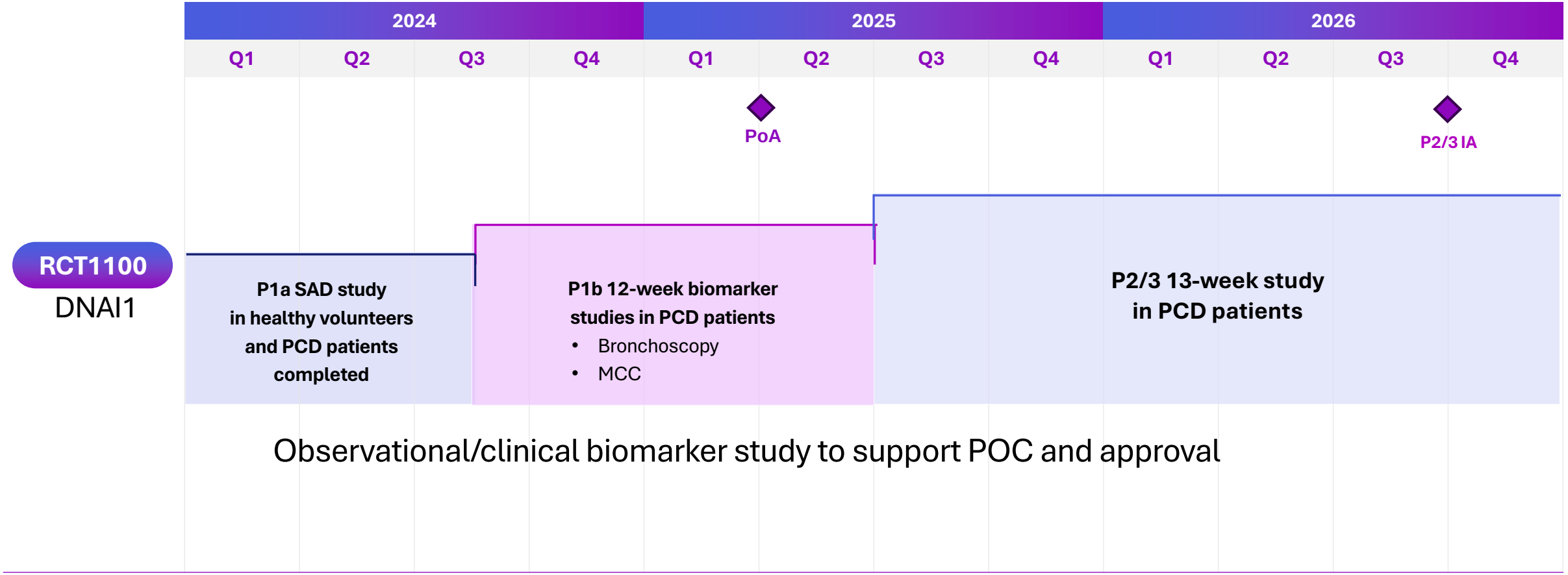
3 = intense signal in more than 50% of airways, with cilia specific localization several regions

4 = intense signal in all airways, with clear cilia localization in most regions

- Semi-quantitative scoring of the bronchial epithelium shows frequency-dependent accumulation of *DNAI1* protein following repeat-dose administration over 6 weeks (each score represents avg of 3-4 lung regions)
- Single dose (SD) study: 0.34 mg/kg; 6-week repeat-dose: 0.14 mg/kg; 24h post-dose timepoint for all groups

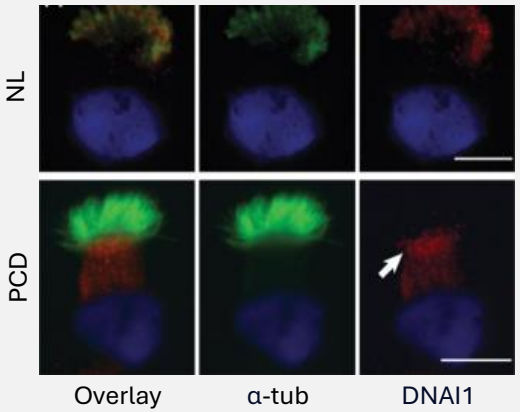
P1/2 program designed to deliver rapid clinical POA

P2/3 study planned to initiate mid-2025



P1b studies designed to show evidence of restoration of mucociliary function

Designed to demonstrate rescue of protein expression, ciliary structure and function, and mucociliary clearance

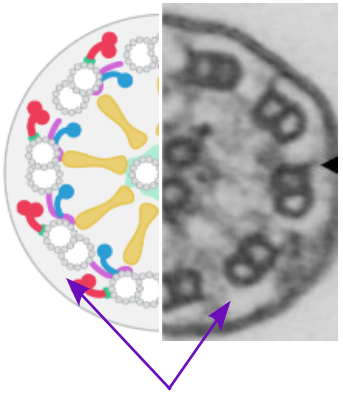


Immunofluorescence (IF)

showing protein expression in disease-relevant cells

PLoS One 8 (2013) e59436

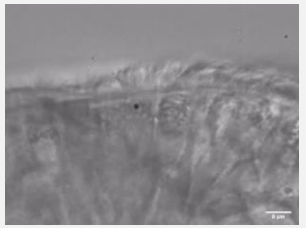
Normal vs Defective ODA Structure (e.g. DNAI1)



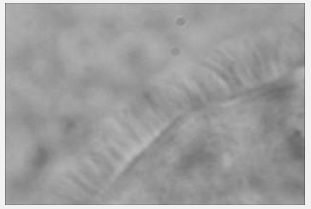
Transmission electron microscopy (TEM)

showing rescue of the ciliary axoneme structure

Clin Chest Med 43 (2022) 127–140



Healthy Normal; Cilia beat at approximately 10 Hz

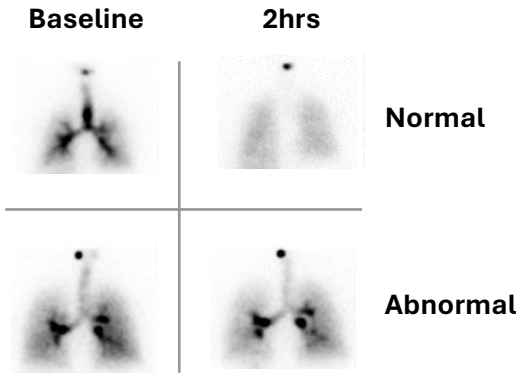


DNAI1; (This is a video, the cilia are not moving)

High-speed video microscopy

showing rescue of ciliary beat frequency and beat pattern

Clin Chest Med 43 (2022) 127–140



Mucociliary clearance (MCC)

Inhaled radio-aerosol showing whole lung mucociliary clearance

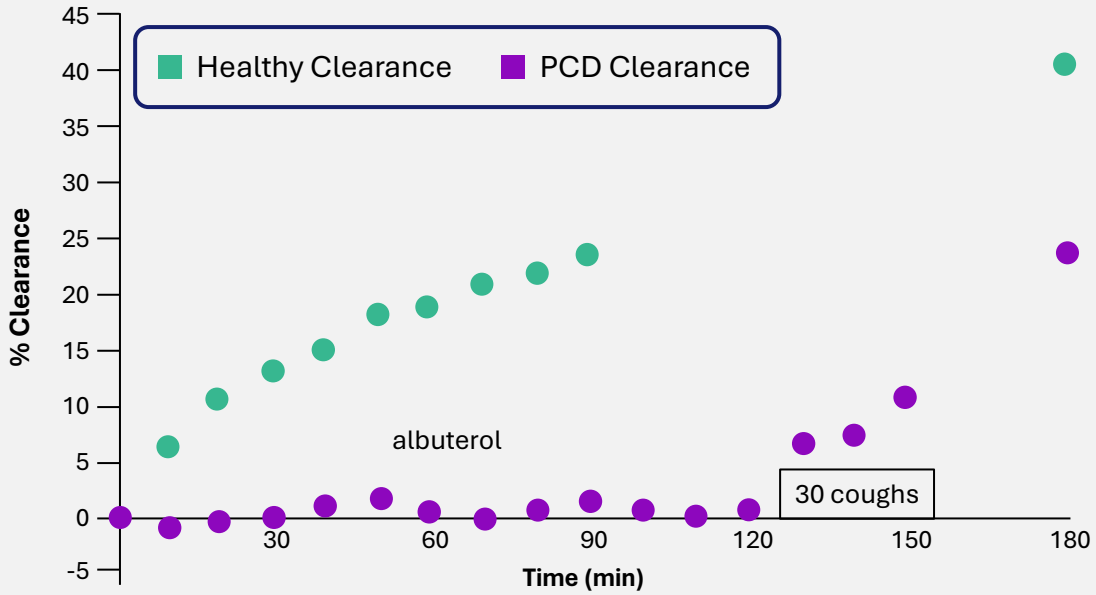
ERJ Open Research 9 (2023) 00865-2023

Patient data anticipated Q1 ’25

Pulmonary radioaerosol MCC is a sensitive assay likely to predict clinical benefit

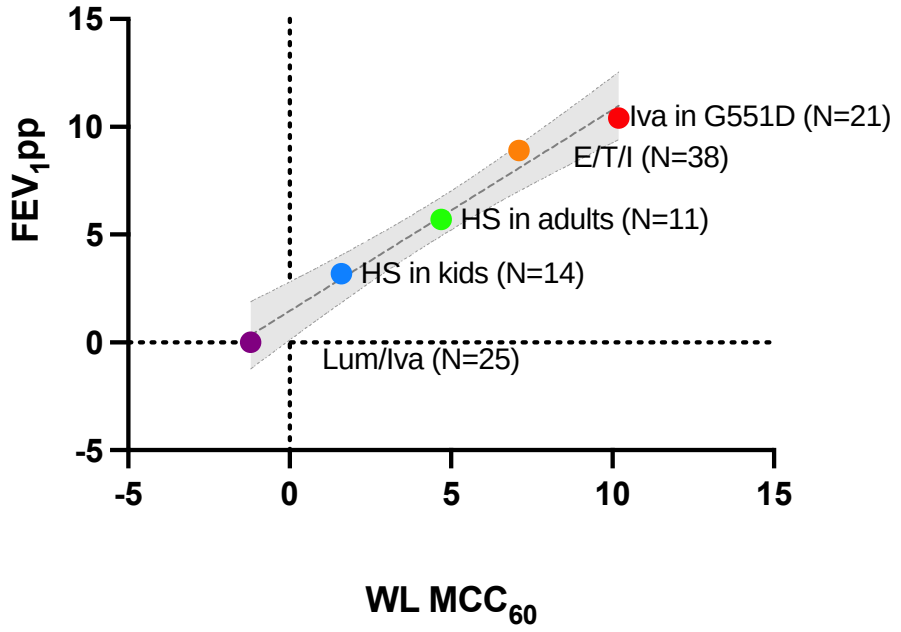
Distinguishes PCD from healthy lung function and correlates with clinical improvement

Comparison of MCC in PCD patients vs. Healthy Controls



Whole lung MCC in adult PCD (n=4) vs. healthy non-smokers (n=12). PCD patients received 4 puffs of albuterol MDI w/ spacer at 60 min and performed 30 voluntary coughs between 120-150 minutes

Absolute Change in Whole Lung MCC vs. FEV1 in CF[1]



1. Unpublished data from Scott Donaldson, M.D., UNC

Novel Selective Organ Targeting (SORT) Lipid Nanoparticle (LNP) Platform

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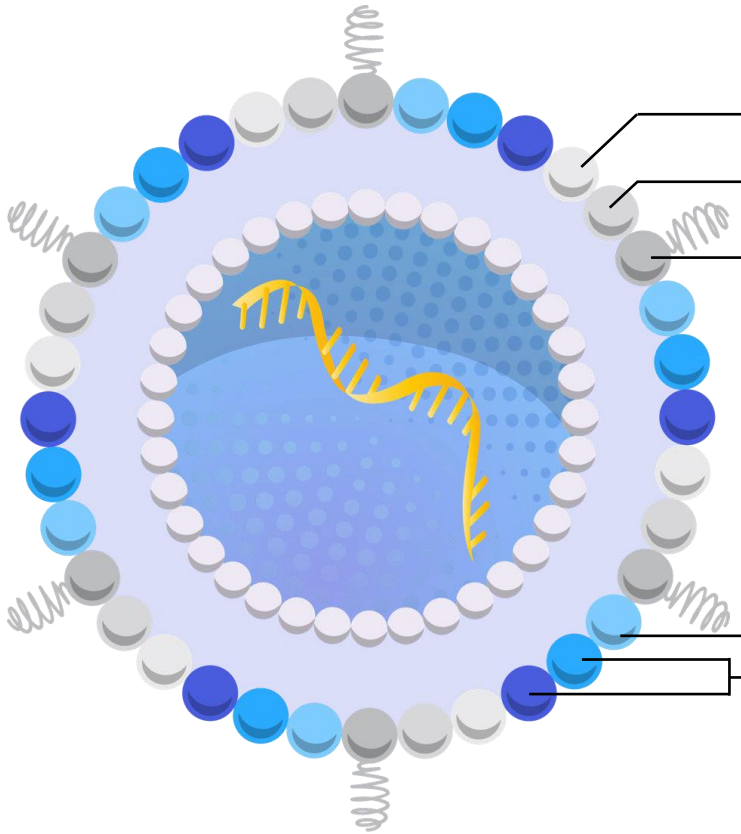
SORT LNP platform delivers diverse genetic payloads beyond the liver

Sort LNP architecture



Conventional LNP components

- **Cholesterol**
- **Helper phospholipid**
- **PEGylated lipid**

+ Proprietary lipids

- **Novel ionizable lipid**
- **SORT lipids**

Additional 5th and 6th SORT lipid directs LNP to specific tissues and cells

Proprietary LNP platform compatible with wide range of payloads and routes of administration

POSSIBLE PAYLOADS

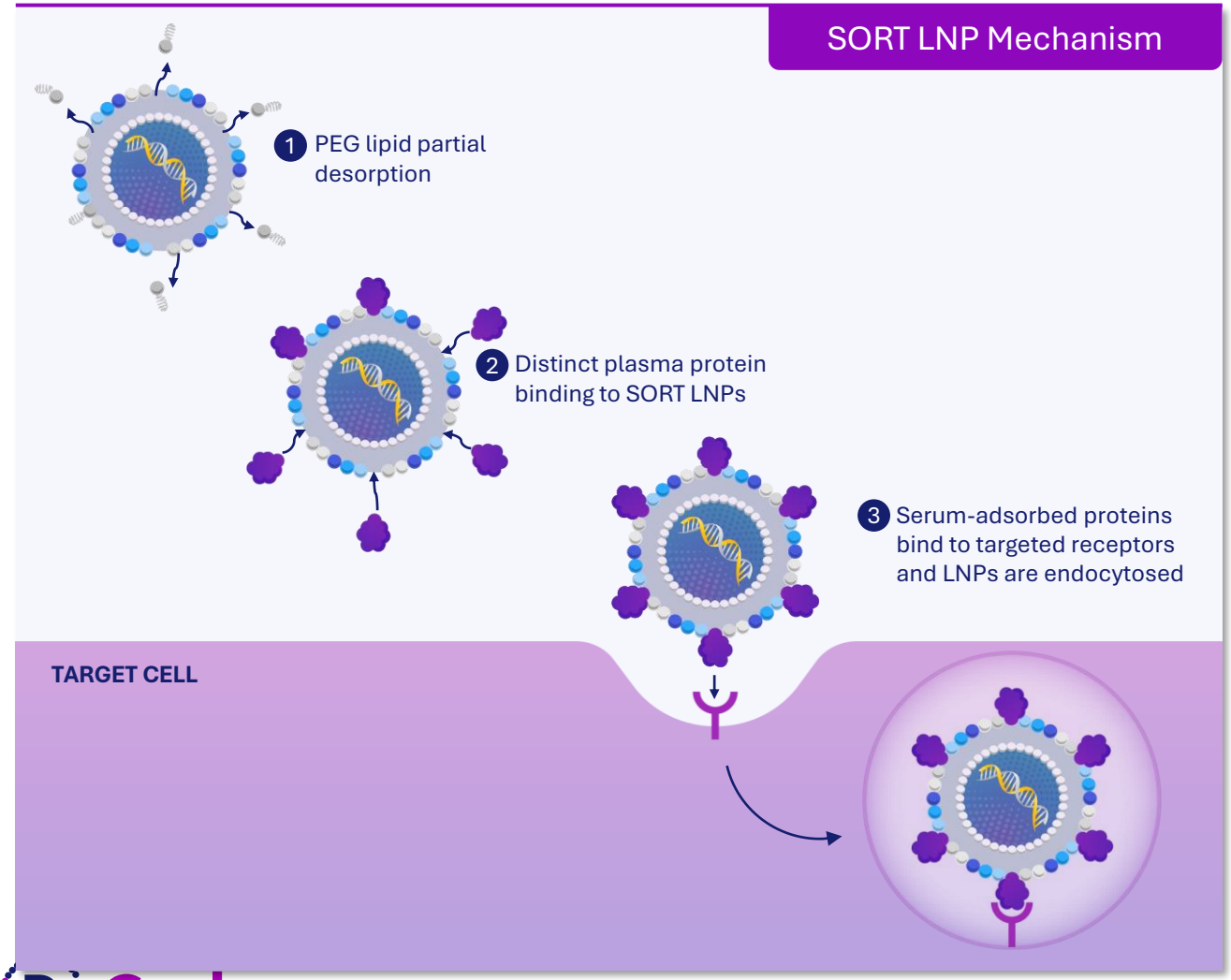
- Gene editing
- DNA
- mRNA
- siRNA
- Peptides
- Mixed payloads

ADMINISTRATION METHODS

- Nebulizer (local)
- IV (systemic)
- Intrathecal

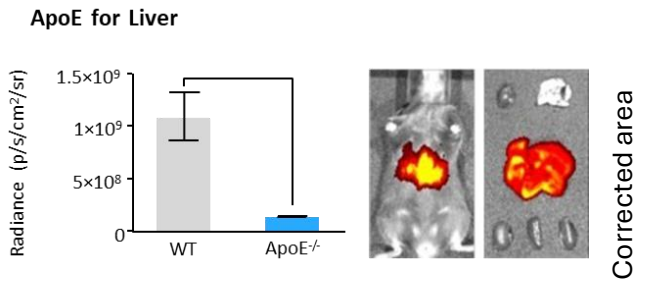
Endogenous targeting MOA enables tissue-selective and cell-tropic delivery

SORT LNPs designed to absorb specific plasma proteins that mediate tissue-selective delivery

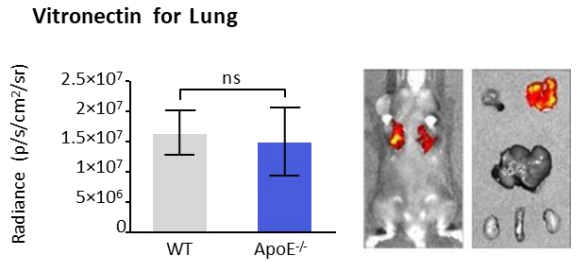


Extrahepatic delivery of SORT LNPs occurs via an ApoE-independent mechanism

Liver SORT LNP



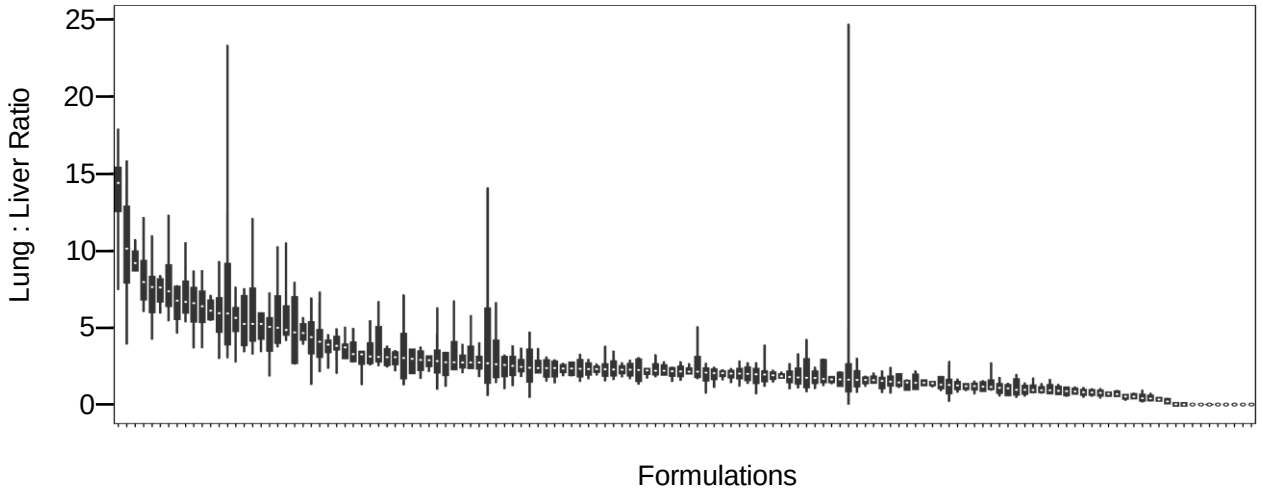
Lung SORT LNP



IV SORT LNPs are optimized for extrahepatic selectivity

SORT LNPs leverage multiple routes of administration, including IV, for targeted delivery and biodistribution

Distribution of Lung: Liver Ratios for LNPs



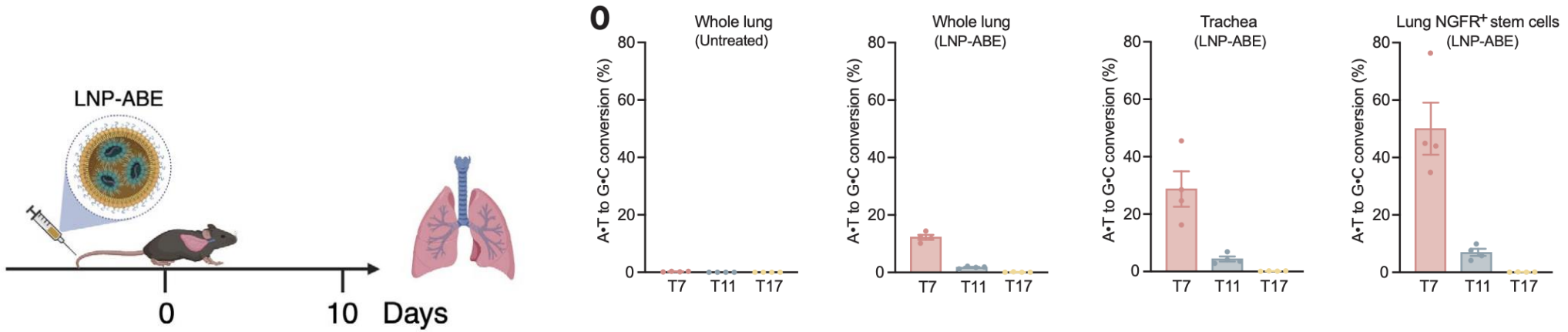
- ~200 unique IV SORT LNP formulations screened in rats
- Identified SORT LNPs with high lung expression relative to benchmark LNPs
- Leads differentiated from established benchmarks and validated via orthogonal protein readouts

Demonstrated direct and persistent *in vivo* gene editing of mouse lung epithelial cells

Science

GENE EDITING

In vivo editing of lung stem cells for durable gene correction in mice



ABE Gene Correction of CFTR hR553X Mouse Lung Basal Cells After a Single Administration*

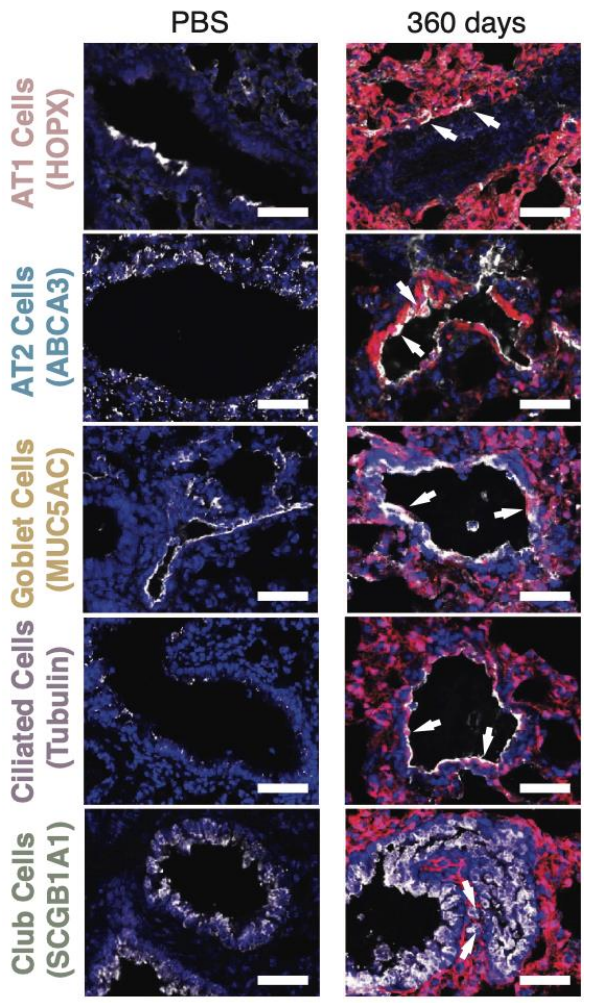
ReCode THERAPEUTICS

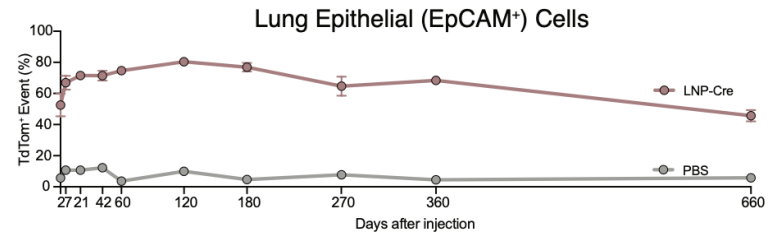
* Data from *Science* (2024)

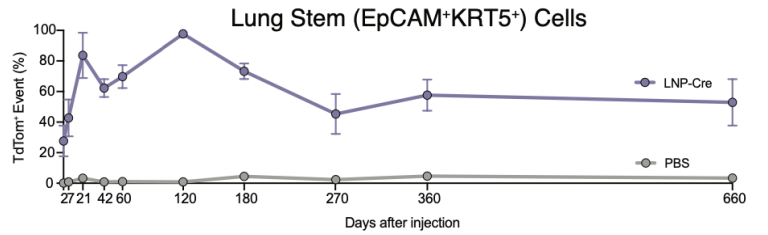
Durable *in vivo* gene editing of mouse lung epithelial cells for ~ 2 years

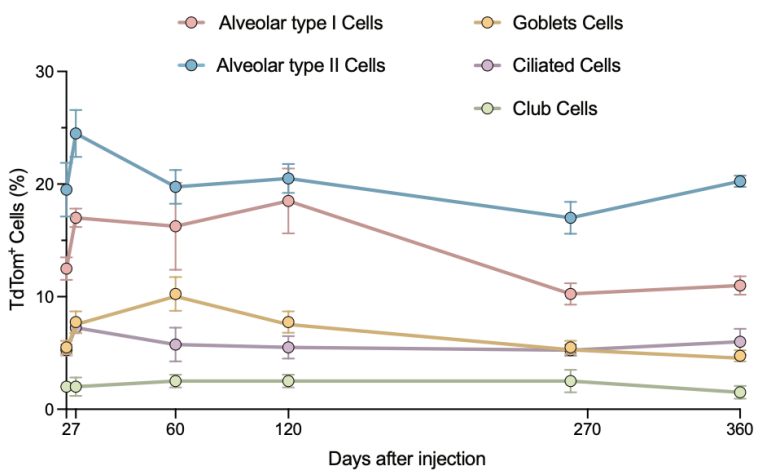
Importance of Findings

- First direct evidence of genetic edit of lung epithelial cells, including stem cells, following IV SORT LNP administration
- High editing efficiency *in vivo*, with persistence for nearly 2 years









Significant opportunity with near-term data milestones

Ph1b studies for first two mRNA-therapeutics programs imminent

- **Q1 2025**: Demonstrate human proof-of activity for RCT1100 and RCT2100
- **Q3 2025:** Initiate Ph2 proof-of-concept studies for RCT1100 and 2100

→ Path to registration for RCT1100 expected by **1H 2025**

Launch next wave of in vivo genome editing programs

- Demonstrate preclinical proof-of-concept of editing for CF GC program
- CF ferret data (in 2H ‘25)

Partnering

- Leverage business development to accelerate pipeline and extend reach of SORT LNP platform across novel genome and epigenome engineering payloads
- Explore program deals for RCT1100 and RCT2100 post-data to enhance and globalize market potential

Cash runway to end of Q3 ‘25; Crossover & IPO proceeds support runway through ‘26 & registrational readouts in PCD & CF

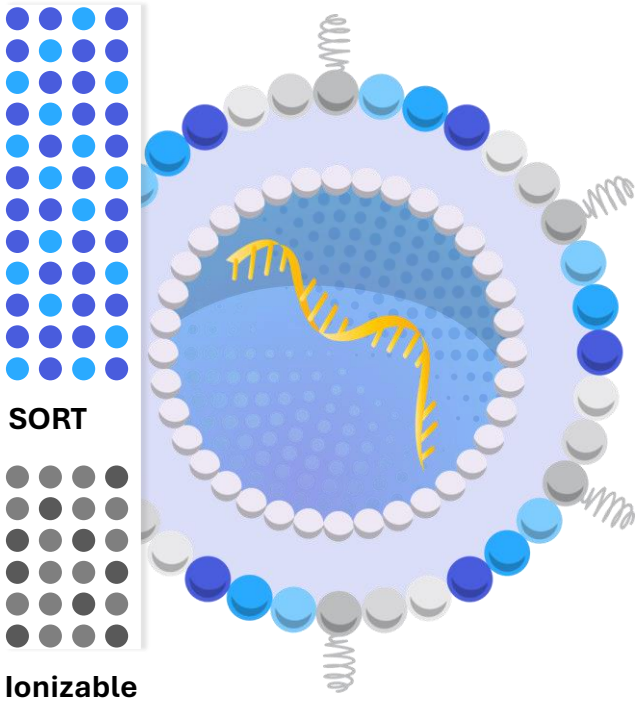
Abbreviations: BLA (application for accelerated marketing approval), DC (development candidate), IA (interim analysis to trigger start of confirmatory study for accelerated approval), FA (full analysis), GC (gene correction), MAD (multiple ascending dose), NHP (non-human primate), POA (proof of activity, e.g., convincing trend of clinically meaningful effect), POM (proof of mechanism, e.g., editing of human bronchial epithelial cells), SAD (single ascending dose)

Only LNP platform that provides FTO with a large and chemically diverse library

Other platforms require stacked licenses from multiple parties

Library

ReCode LNPs are designed & optimized by adjusting the ionizable & SORT lipids and their relative molar ratios



Patients

New lipids, SORT LNPs, formulations, MOAs, therapeutics, manufacturing

150+ applications

40+ issued patents

30+ patent families

300+ classes novel 1st & 2nd gen ionizable, SORT and PEG lipids

WW Coverage

- Distinct LNPs in a crowded and litigious space
- WW and exclusive IP rights
- One license

Know-How

- Therapeutic-grade LNP manufacturing
- MOAs & optimization
- Composition identification & optimization

ReCode THERAPEUTICS

NON-CONFIDENTIAL

Corporate Overview

September 2024