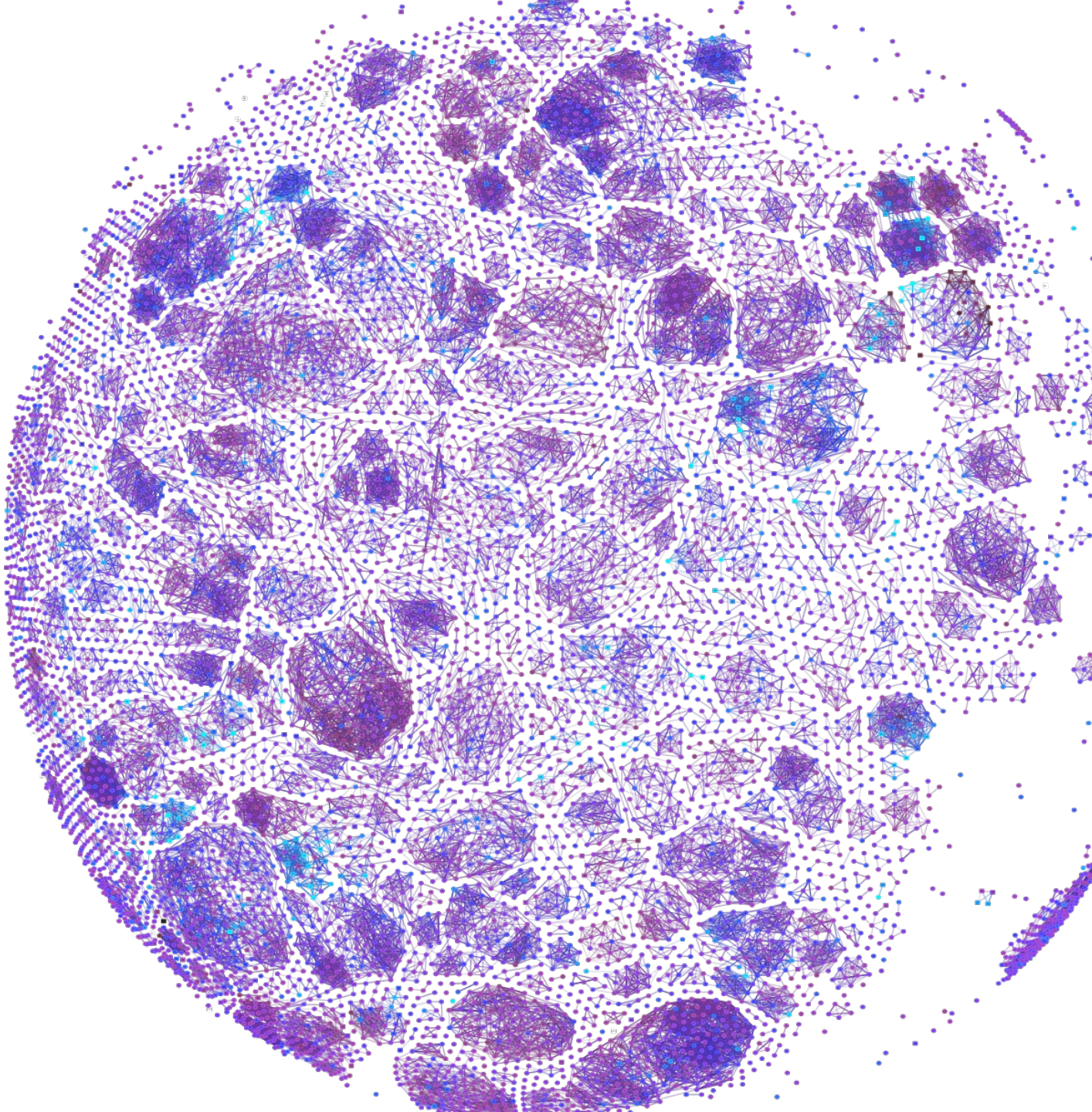
Decoding Biology To Radically Improve Lives

Early June 2023

Recursion



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Maturing the TechBio value proposition

Entered into agreements to **acquire Cyclica and Valence** to bolster **digital chemistry** and **generative AI capabilities** – providing TechBio's leading full-stack drug discovery solution

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Initiated 5 clinical trials in 2022 (3 Ph2, 2 Ph1) and planning to initiate a **6th clinical trial** (Ph2) for AXIN1 or APC mutated oncology in early 2024

Expecting **REC-3964 Ph1** readout in **2H 2023**, **REC-994 Ph2** top-line data in **2H 2024**, and **REC-2282 Ph2** interim analysis in **2024**

Novel oncology program (RBM39) to **IND-enabling studies**

Advancing collaborations in **Neuroscience (Roche-Genentech)** and **Fibrosis (Bayer):** $13B in potential milestones across 50+ possible programs plus royalties

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We believe that we have built one of the **largest proprietary & relatable** in-vitro biological and chemical **datasets:** >23 petabytes of data and >3 trillion searchable relationships

Acquisitions bolster digital chemistry and generative AI capabilities

CYCLICA

(Toronto)

- Enhance the **optimization** of Recursion's compounds for **efficacy** while **minimizing liabilities**
- Rapidly advance the **diversification and discovery** of **novel chemical matter**
- Enables **mechanism of action deconvolution** and **generative chemistry**

Valence

(Montréal)

- Enable acceleration of **generative design of new molecules**, **DMPK predictions**, and more
- Combined data generation will support work on **building foundation models**
- Will become a center for **cutting-edge applied AI/ML research** across chemistry and biology

Acquisitions will accelerate Recursion's pipeline and partnerships

Expect no material change to Recursion's cash runway, acquisitions using mostly equity

Combined capabilities provide the leading full-stack drug discovery solution

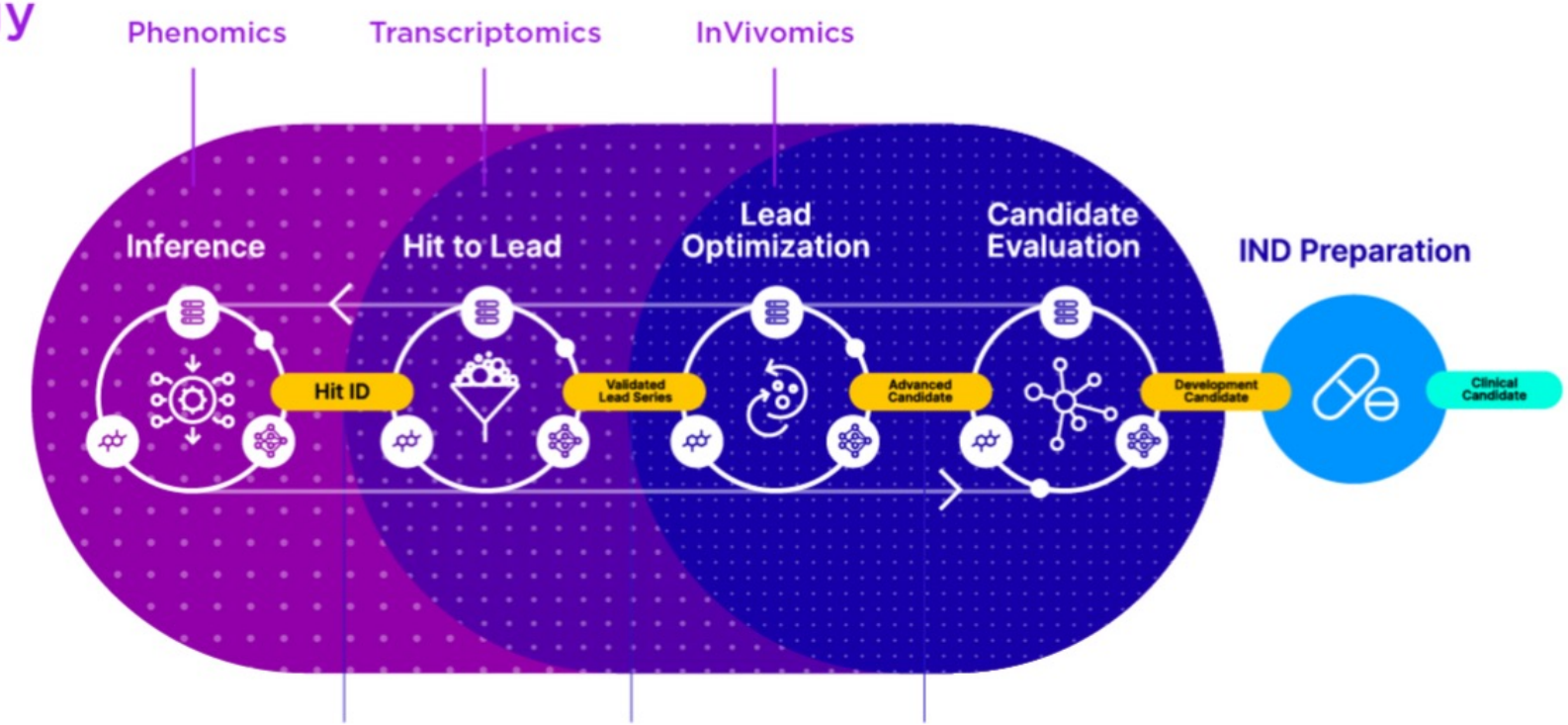
Recursion

CYCLICA

Valence

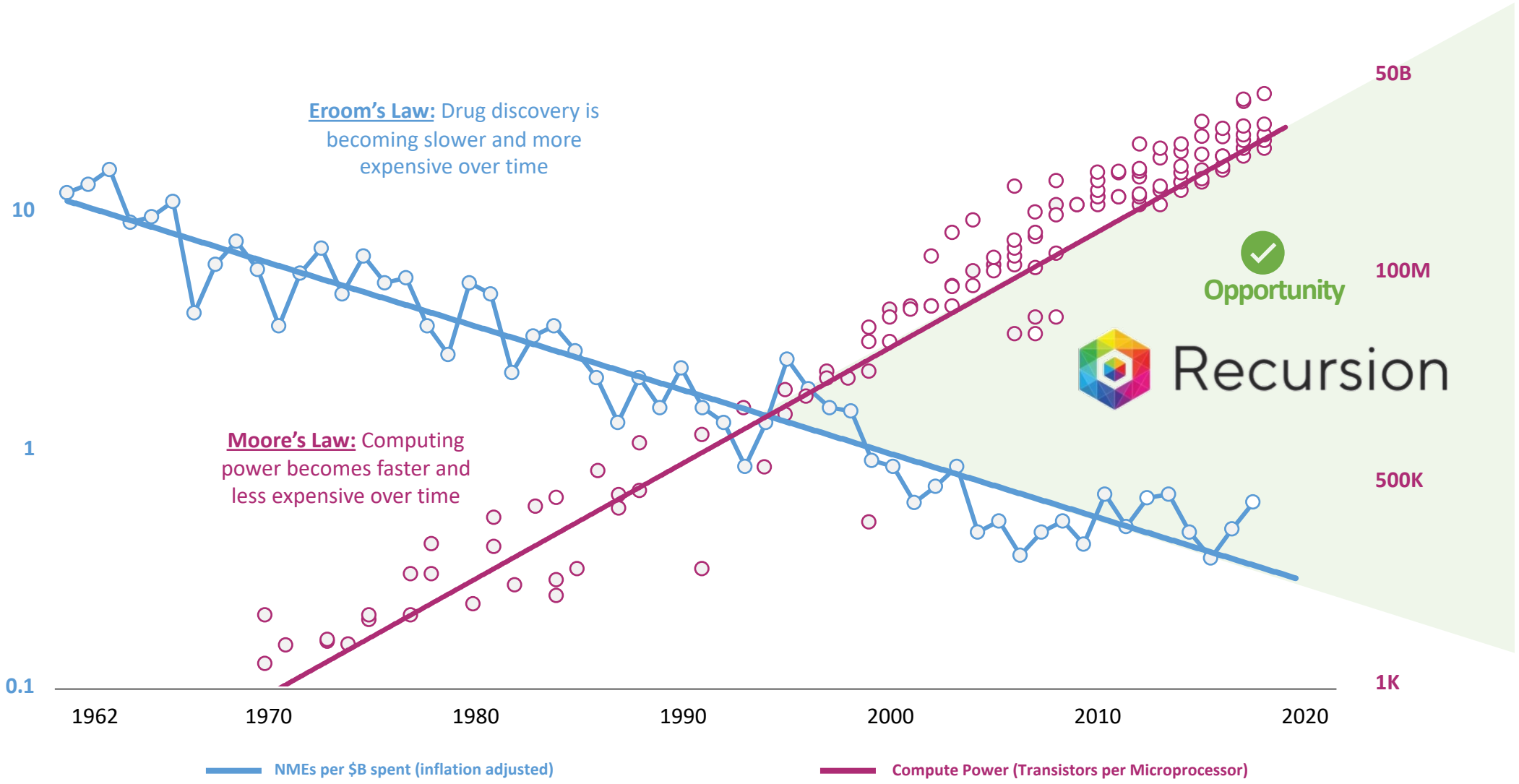
Biology First

Chemistry First



Machine learning and automation

Recursion has an opportunity for arbitrage at the intersection of technology and biology



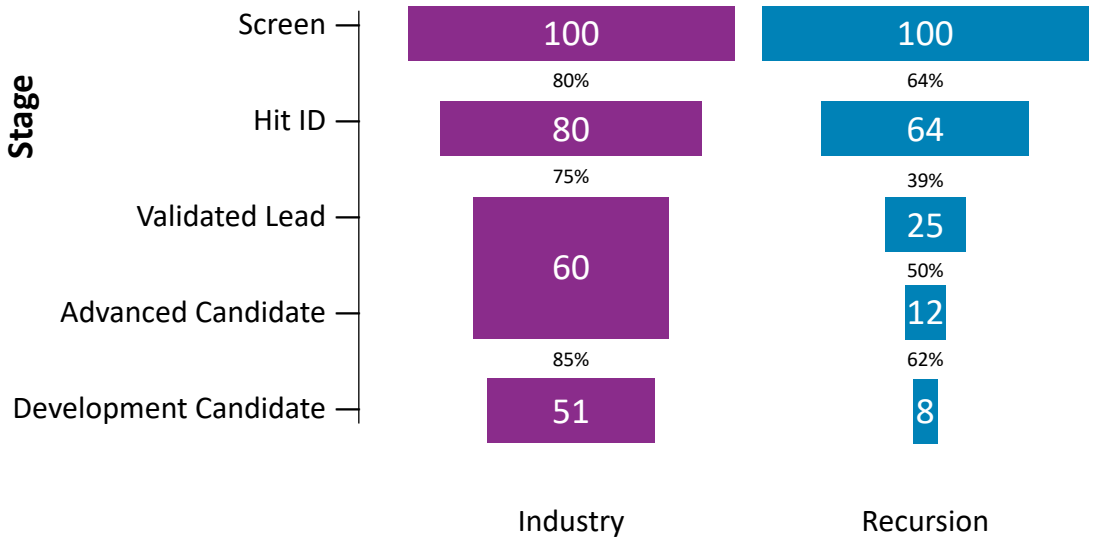
Adapted from Scannell, J et al (2012). Diagnosing the decline in pharmaceutical R&D efficiency. Nat Rev Drug Discov, 11, 191-200.

Recursion's map-based approach is designed to set the standard for drug discovery in the 21st century

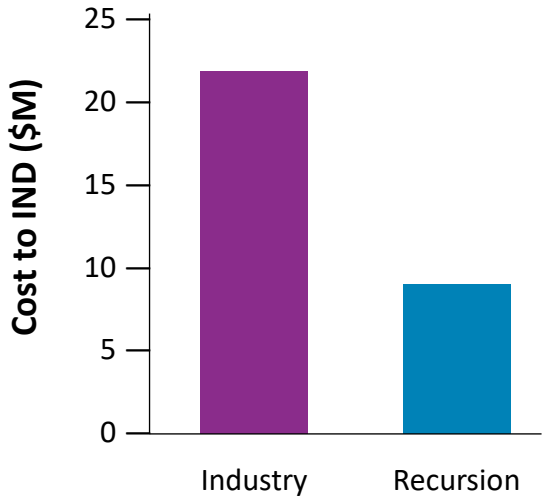
Traditional Drug Discovery		Recursion Approach
Literature drives discovery. *Informs target-based hypotheses*	vs	**Platforms** drive discovery. *Unbiased & target agnostic*
Data are an exhaust. *Limited to testing hypotheses*	vs	**Data** are our fuel. *Shape our hypotheses*
Disparate data generation. *Siloed to individual programs and diseases*	vs	**Connected data** across programs. *Relatable high-dimensional data*
Linear process. *Little cross-program learning or iteration*	vs	**Virtuous cycles** of atoms & bits. *Iterative feedback accelerates learning*
Bespoke processes. *Low-dimensional assays & biomarkers*	vs	**Industrialized** to scale. *Automation & standardization*

Mapping and navigating the complex systems of biology and chemistry has demonstrated leading indicators of efficiency

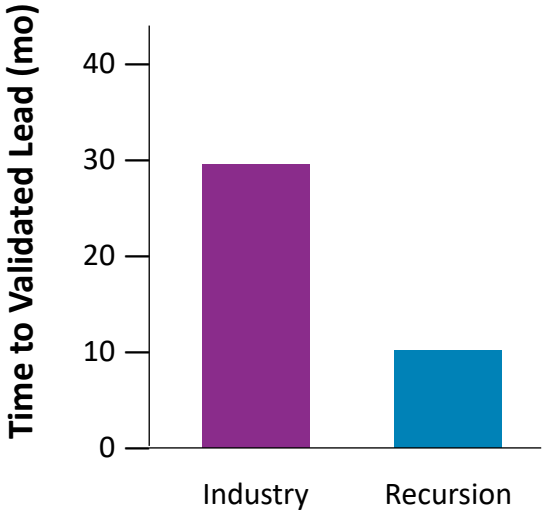
Failing faster and earlier to ›



› spend less ›

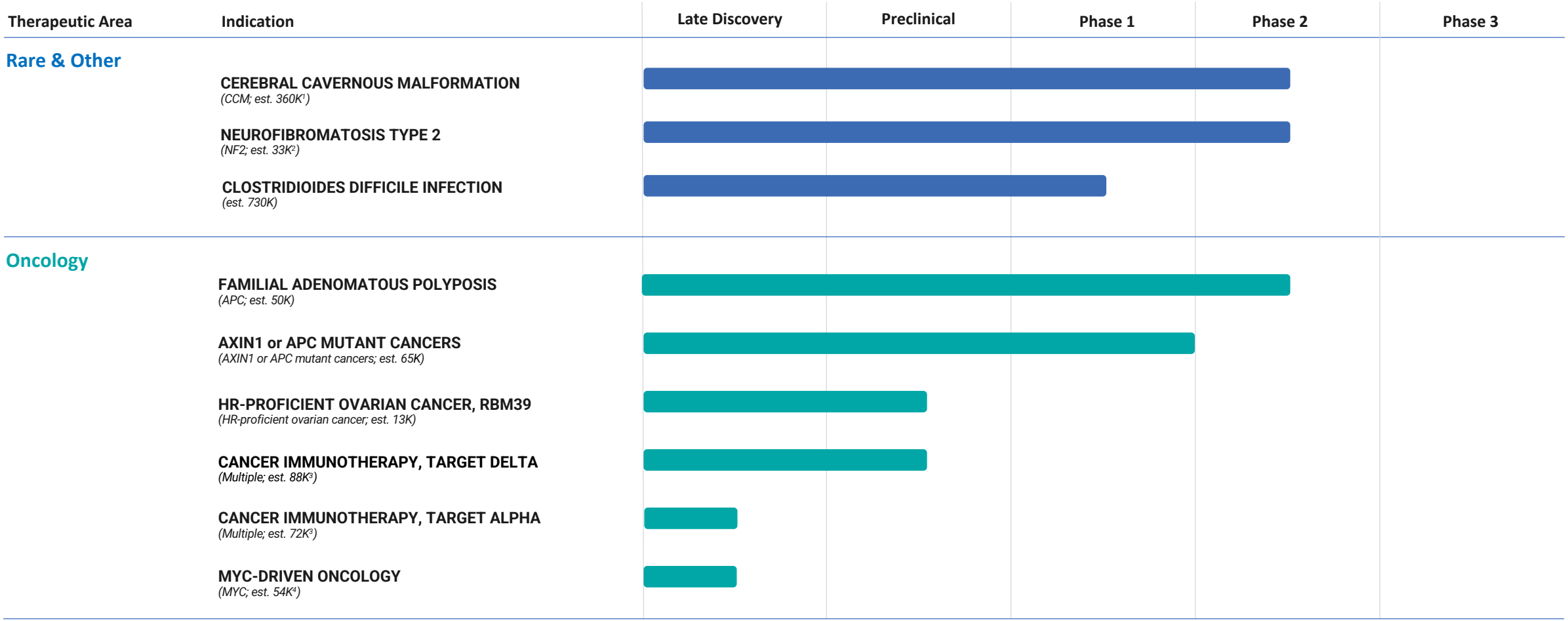


› and go faster



Data shown is the average of all our programs since late 2017. All industry data adapted from Paul, et al. Nature Reviews Drug Discovery. (2010) 9, 203–214

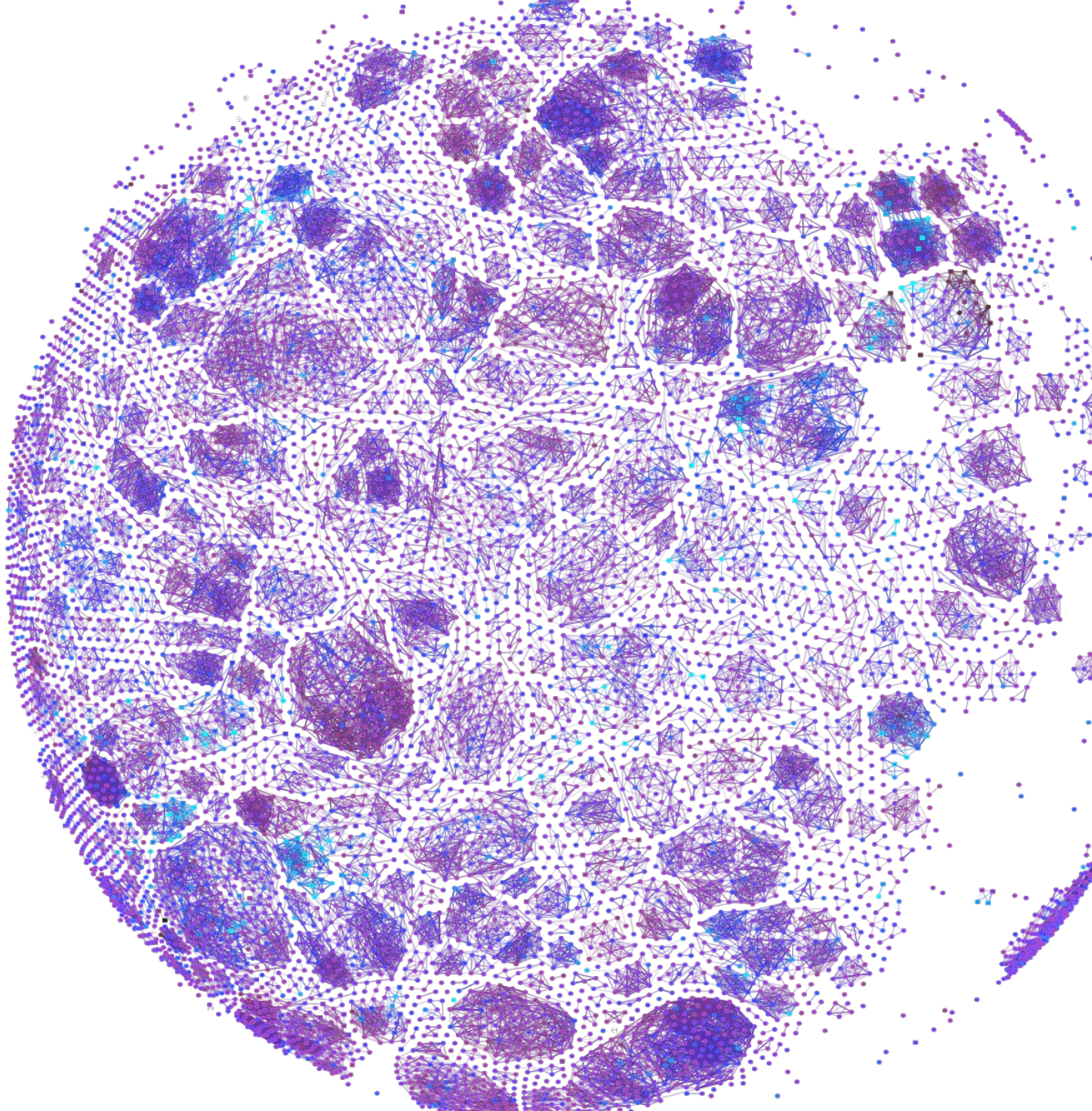
Our pipeline reflects the scale and breadth of our approach



More than a dozen early discovery and research programs in oncology, neuroscience, inflammation & immunology, and rare disease

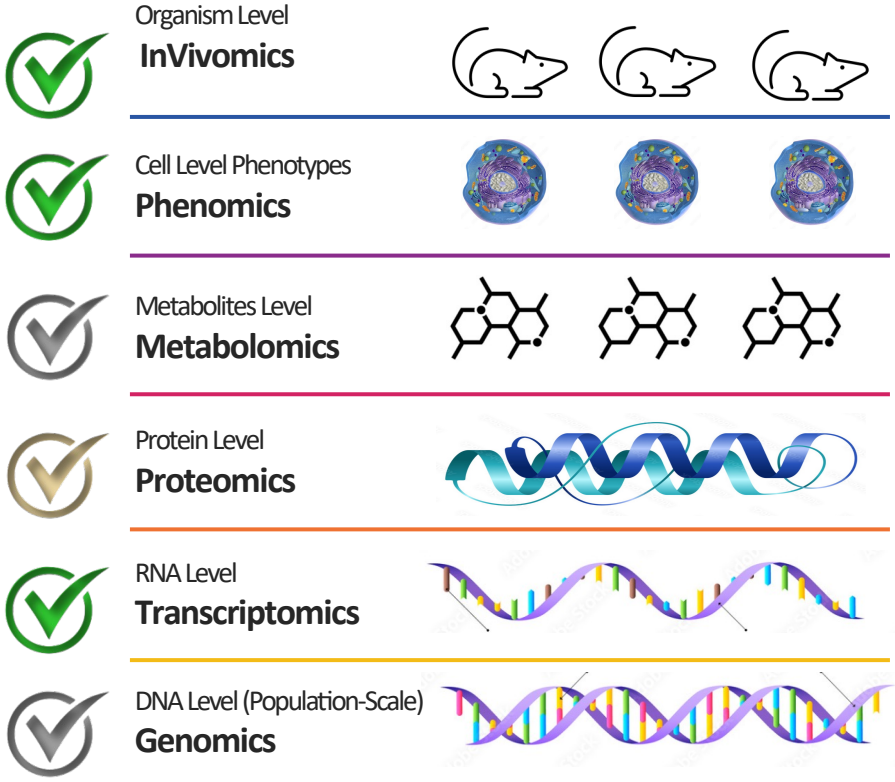
All populations defined above are US and EU5 incidence unless otherwise noted. EU5 is defined as France, Germany, Italy, Spain and UK. (1) Prevalence for hereditary and sporadic symptomatic population. (2) Annual US and EU5 incidence for all NF2-driven meningiomas. (3) Our program has the potential to address a number of indications in this space. (4) Our program has the potential to address a number of indications driven by MYC alterations, totaling 54,000 patients in the US and EU5 annually. We have not finalized a target product profile for a specific indication.

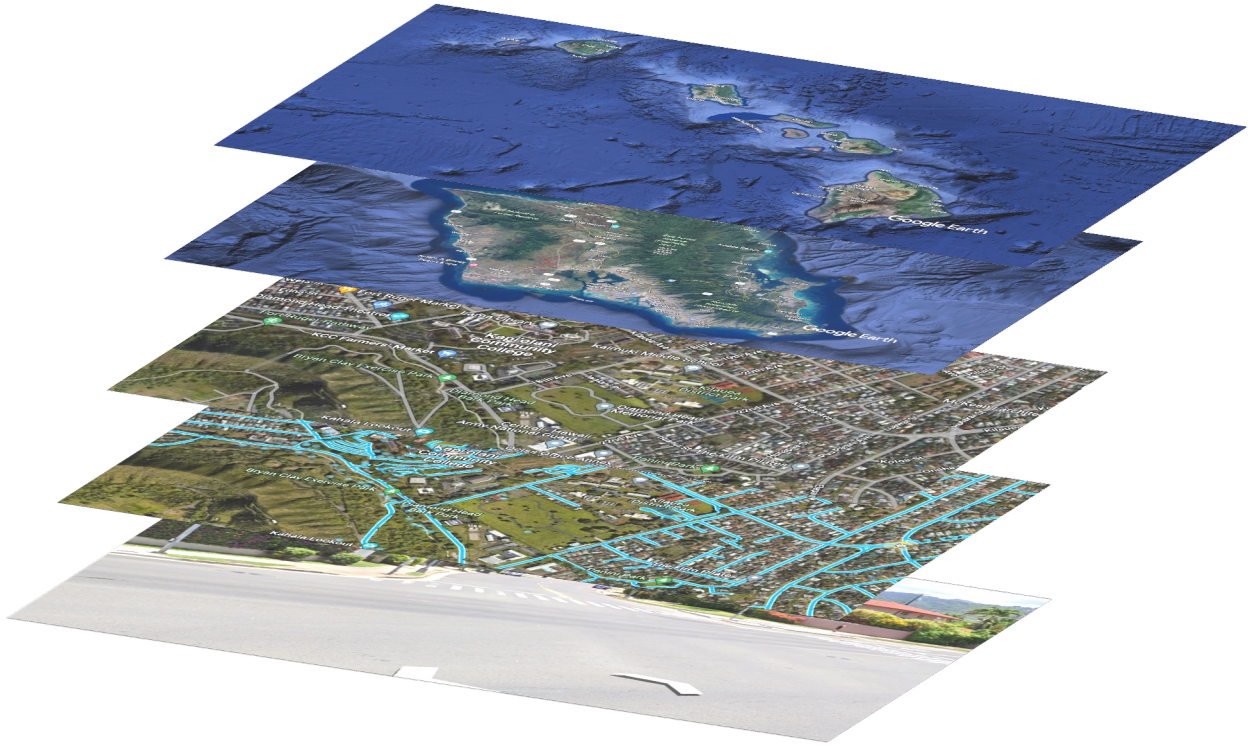
How we build maps of biology and chemistry to turn drug discovery into a search problem



Recursion

We build biological and chemical datasets to map relationships across scales and understand the connectivity of the system





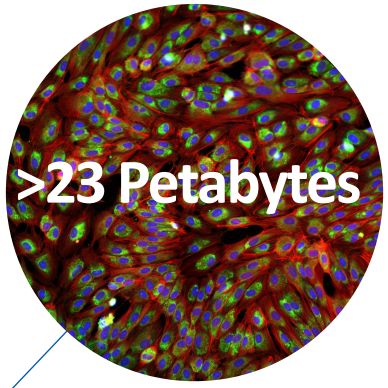
Built and scaled **Exploratory** **Aspirational**

Like digital maps of Earth, **connections within and between layers add useful context**. Similarly, Recursion is **mapping different multiomic layers of biology** and identifying connections within and between layers to **better understand biology at scale**.

Image adapted from D'Orazio, M., et al. Nature Scientific Reports 2022.

Robotic Automation at Scale

Up to 2.2 Million wet-lab experiments per week profiling genes and compounds, we believe we are one of the largest phenomics (human cellular image-based) data producers



Digitization of Biology and Chemistry

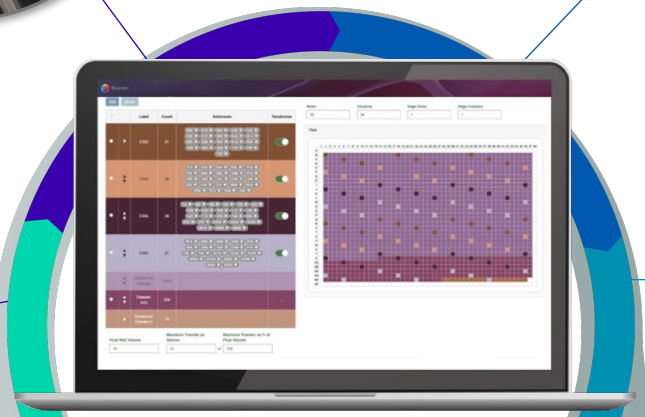
>23 Petabytes of proprietary high-dimensional data, we believe this is one of the largest relatable *in vitro* biological and chemical datasets

Diverse Biological and Chemical Inputs

48
different human **cell types**

~1.7 Million
small molecule library, we believe this scale is on par with some large pharma companies

>700 Billion
hiPSC-derived cells produced since 2022, we believe that we are one of the largest hiPSC-derived cell producers



Recursion OS

Enables quality, relatability and scale of data

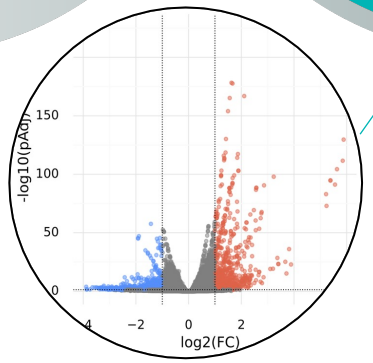
ML-Based Analysis

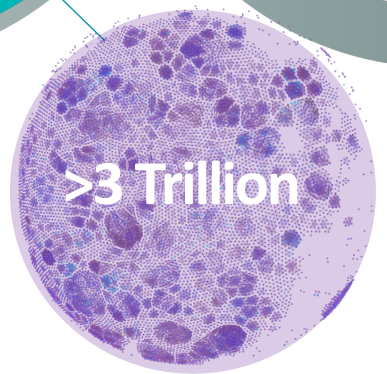
Top 500 supercomputer across any industry (TOP500 List, Nov 2022), we leverage vast neural networks and multiomics approaches to extract features and drive insights

Novel Insights at Scale

High-Dimensional Validation

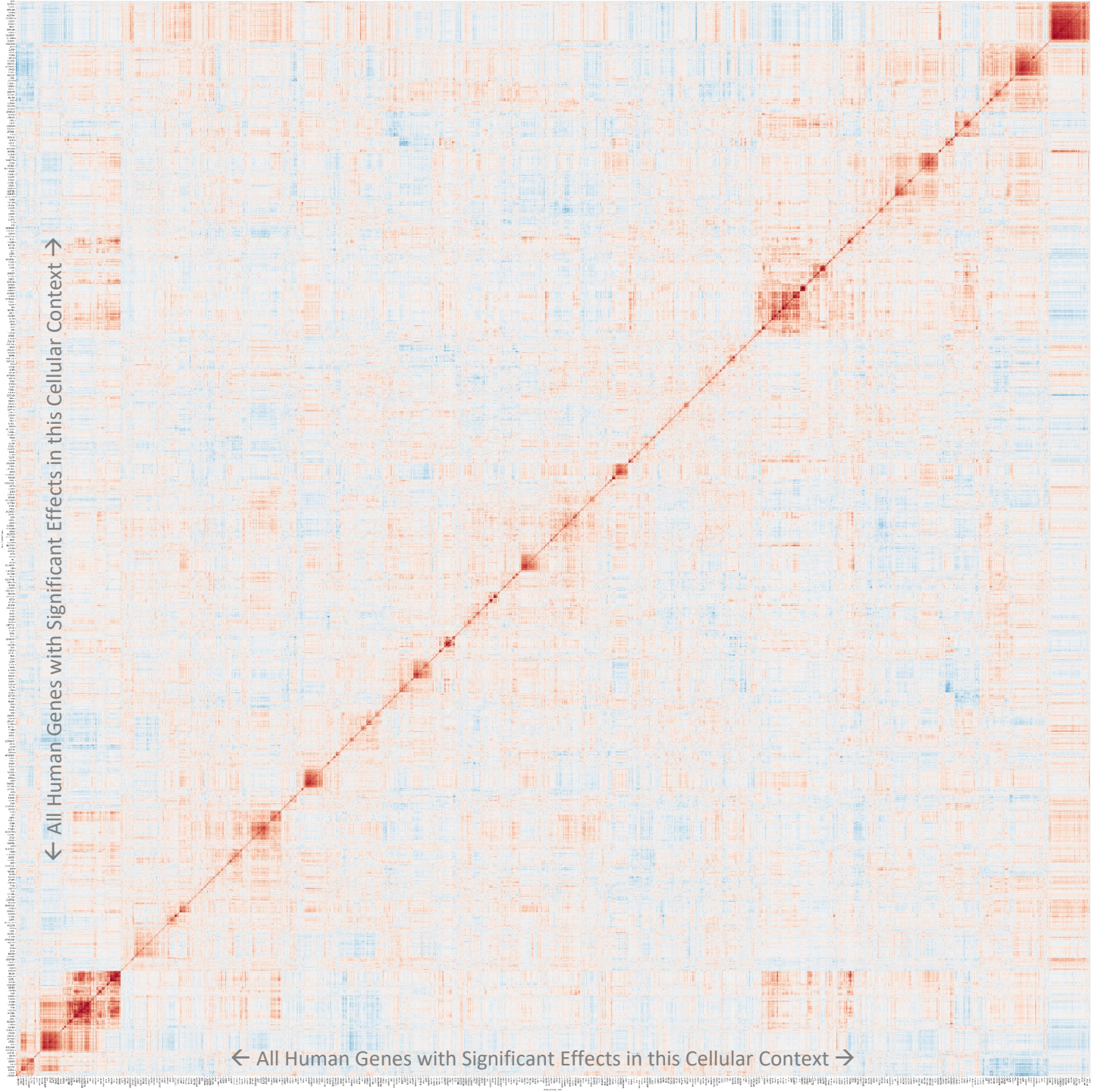
Up to
16K
near whole exomes per week, we believe we are one of the largest transcriptomics data producers





ML-Based Relationships

relatable hypotheses across multiple biological and chemical contexts



Recursion

Genome-scale mapping

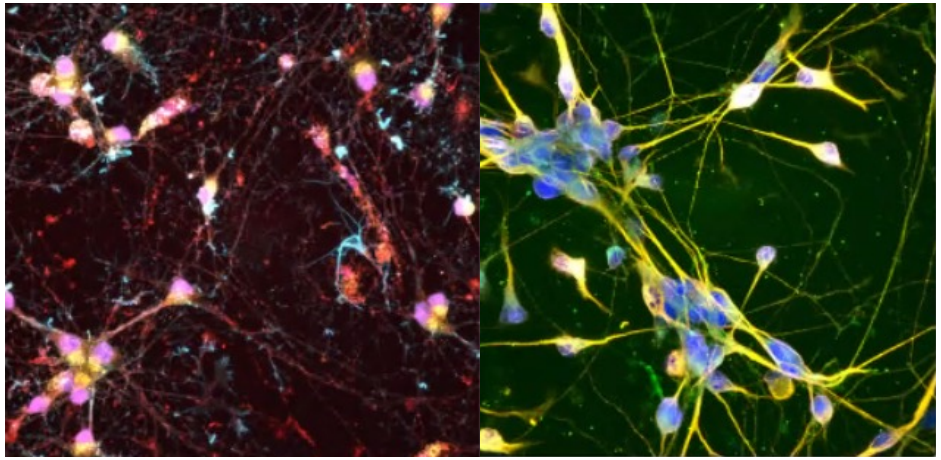
This is a **whole-genome arrayed CRISPR knock-out Map** generated in primary human endothelial cells

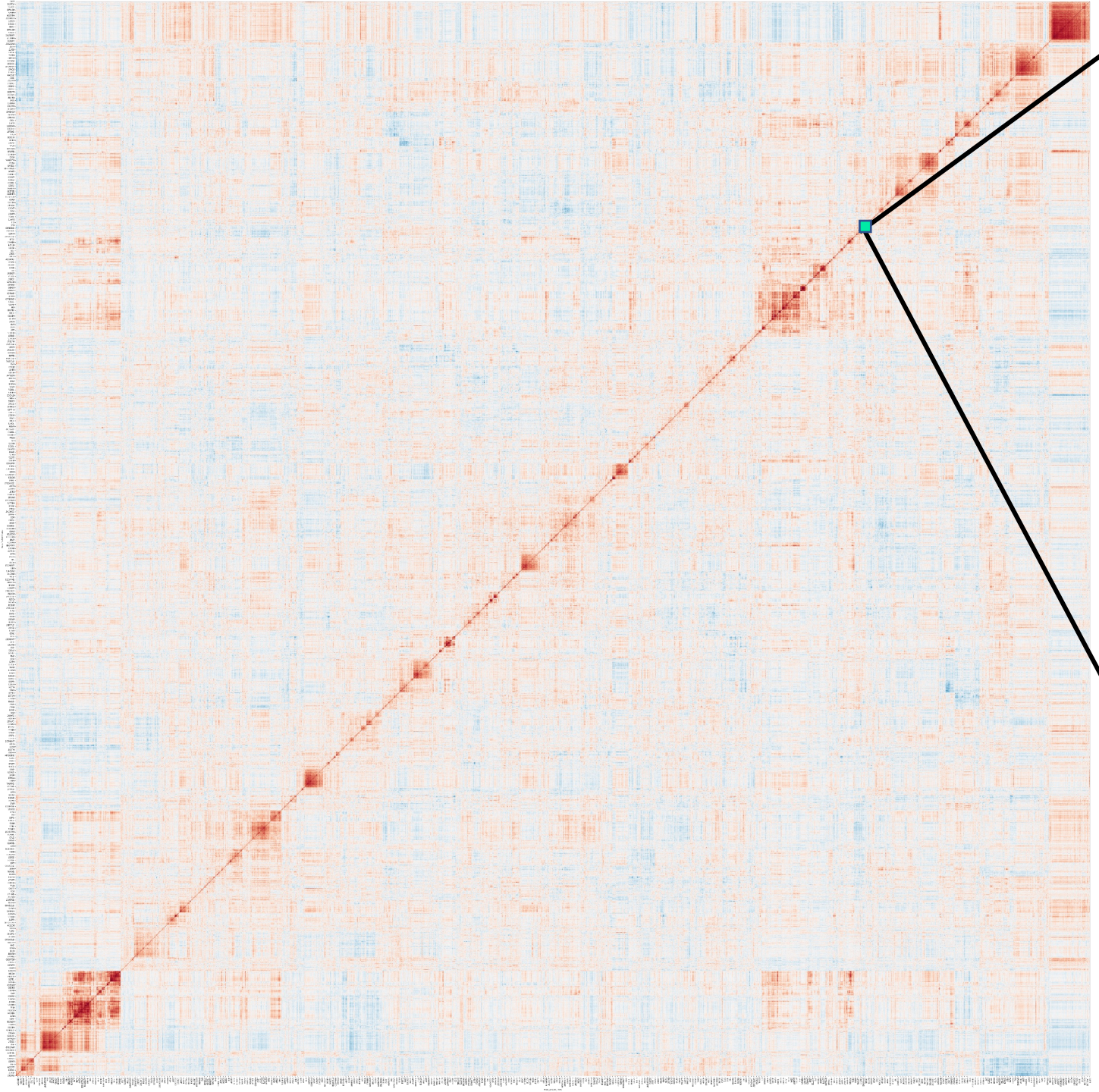
Every gene is represented in a pairwise way (each is present in columns and rows)

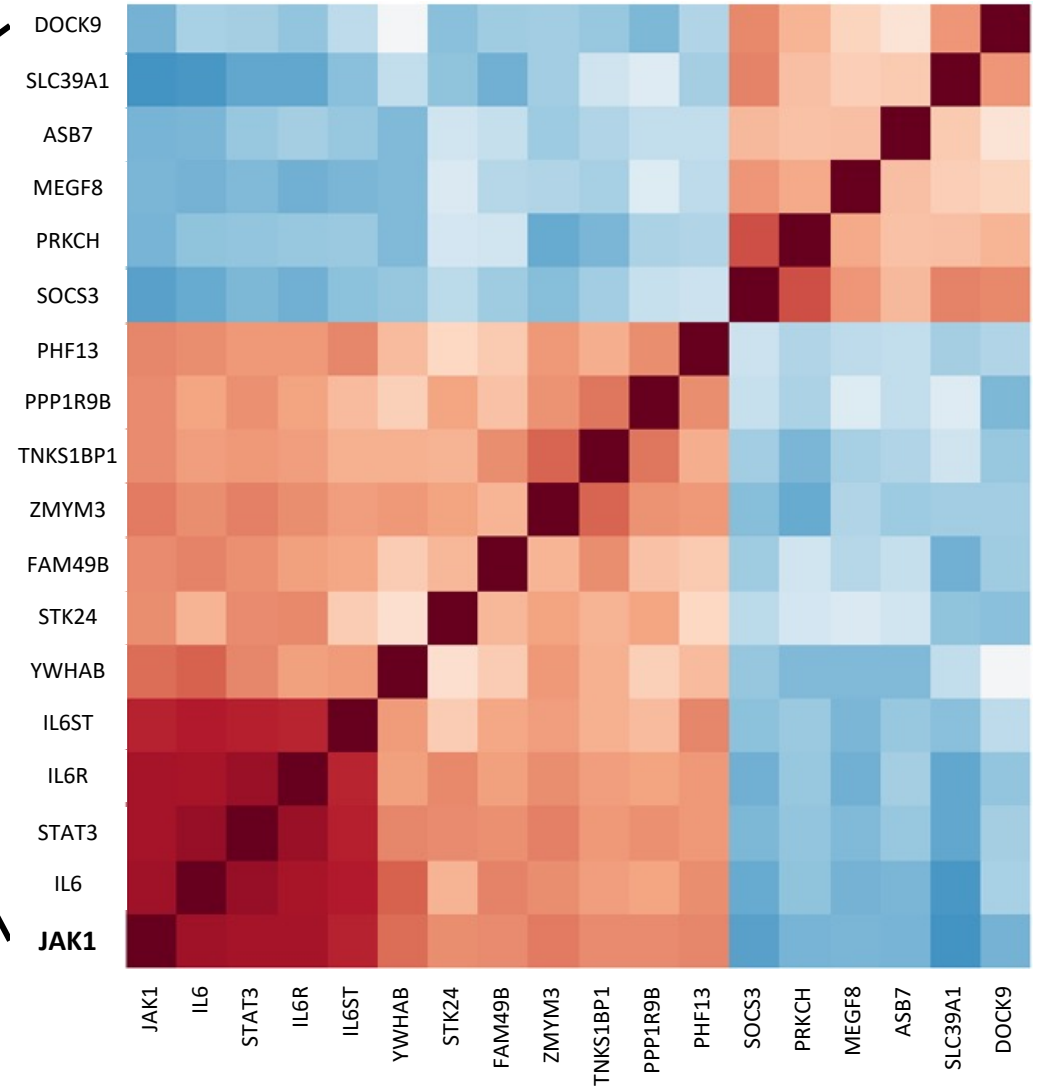
Dark Red indicates phenotypic similarity according to our neural networks while **Dark Blue** indicates phenotypic anti-similarity (which in our experience often suggests negative regulation)

We can add the phenotypes of hundreds of thousands of small molecules at multiple doses and query and interact with these maps using a web application

Thousands of examples of known biology and chemistry

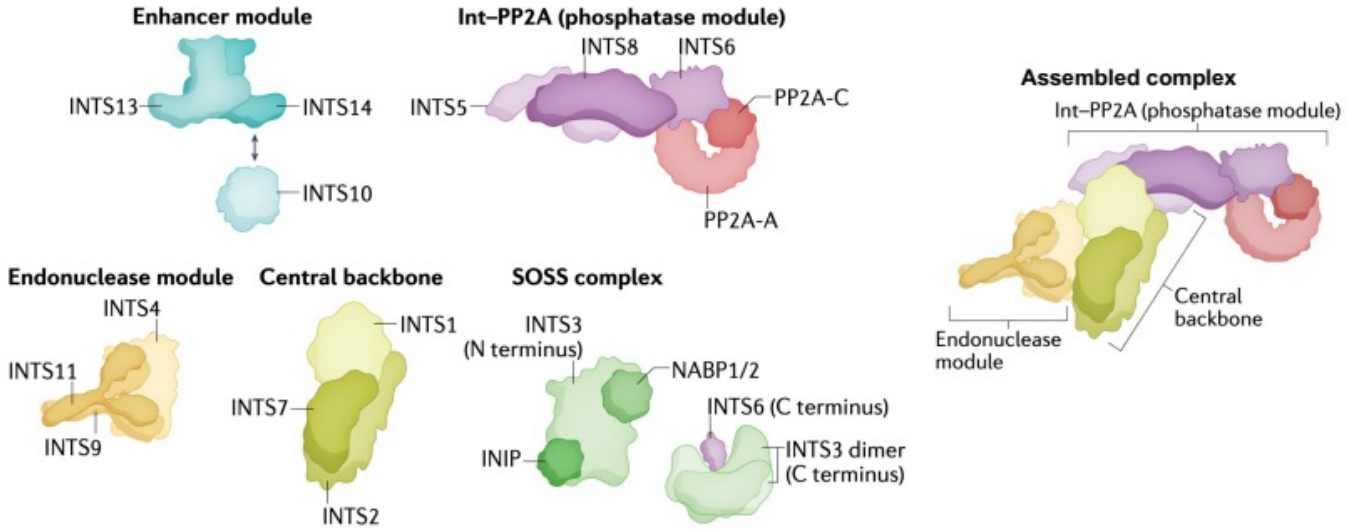




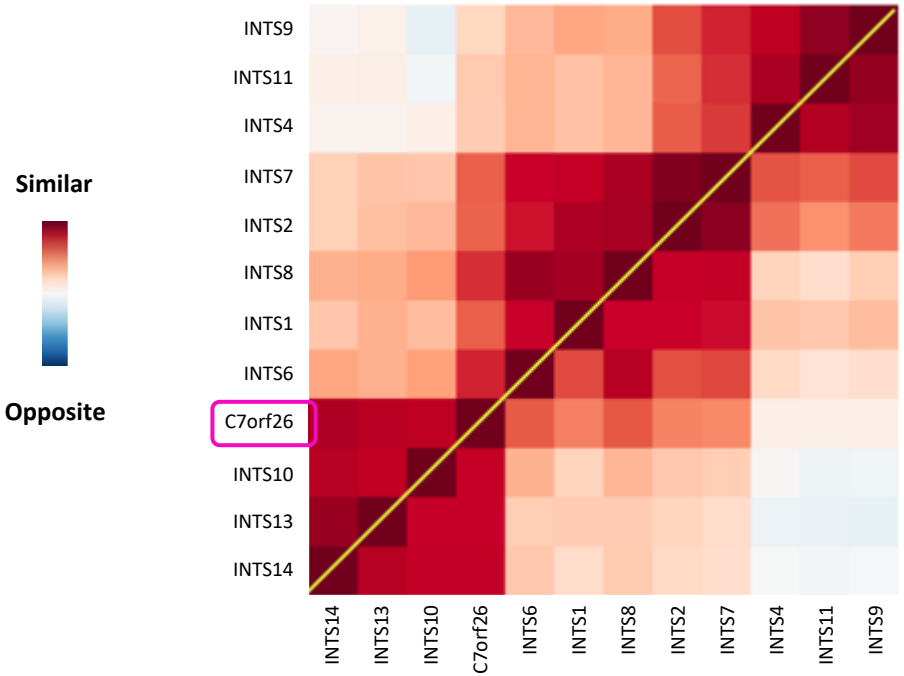


One such example – the **JAK / STAT pathway** clustered by strength of interaction, including both **similar genes (red)** and **opposite genes (blue)**

Can wade into areas of **novel biology and chemistry…**



Phenomics TVN (below diagram) vs. Centerscale (above diagram)



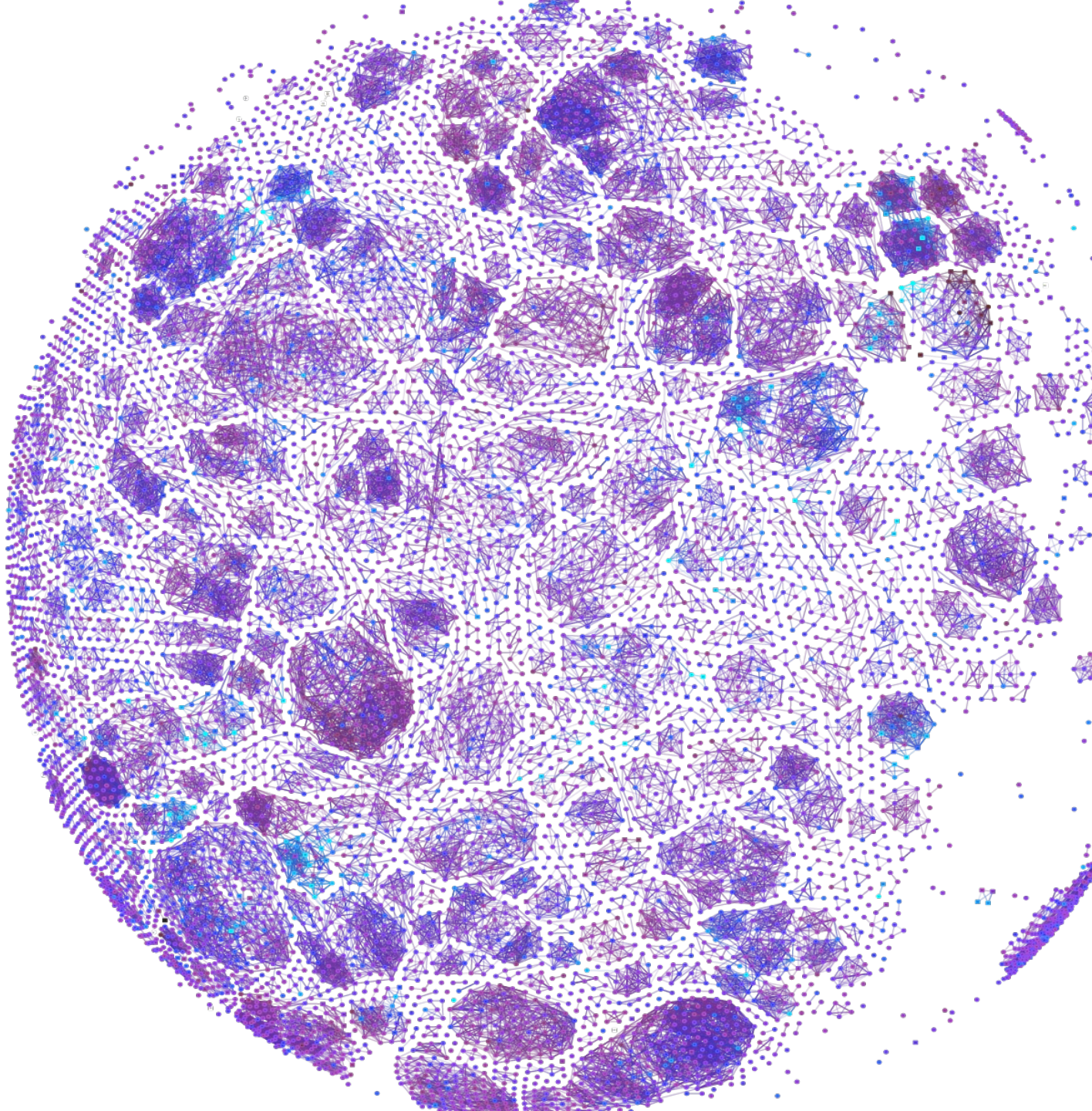
Maps reveal known and novel biology

- In 2022, new independent research identified a previously unknown gene, C7orf26, as part of the Integrator complex
- Maps jointly developed by Recursion and Genentech replicated this same result
- Demonstrates accuracy and consistency across different map building approaches

Recursion®

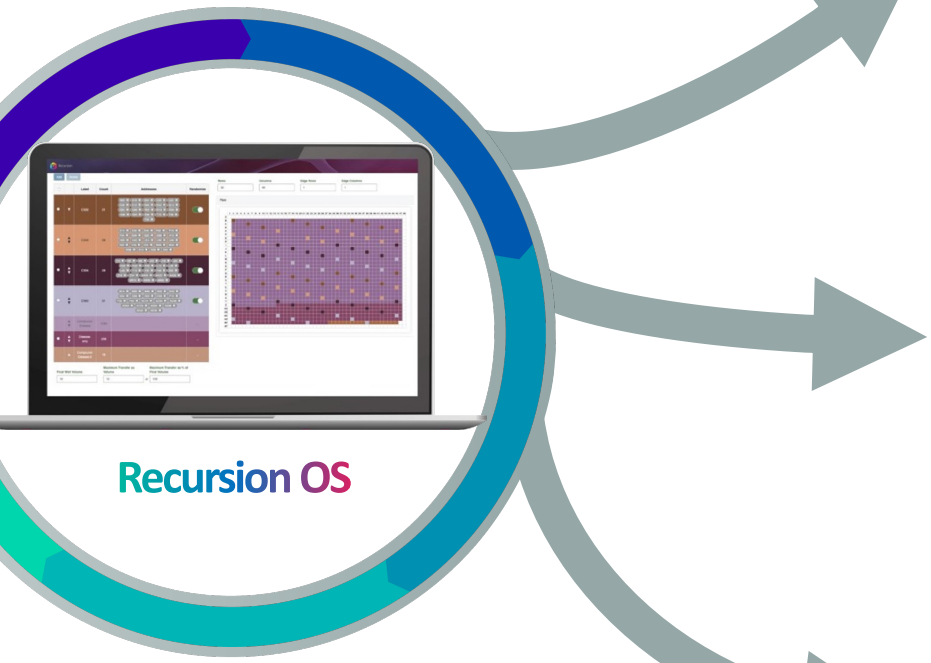
Genentech
A Member of the Roche Group

How we create value using our maps of biology and chemistry



Recursion

Harnessing value with a capital efficient business strategy



Pipeline

Pipeline Strategy

Build internal pipeline in indications with potential for **accelerated path** to approval

- **Precision Oncology**
- **Rare Disease**

Partnerships

Partnership Strategy

Partner in **complex therapeutic areas** requiring large financial commitment and competitive market dynamics

Leverage partner knowledge and clinical development capabilities

- **Fibrosis**
- **Neuroscience***
- **Other large, intractable areas of biology**

Data

Data Strategy

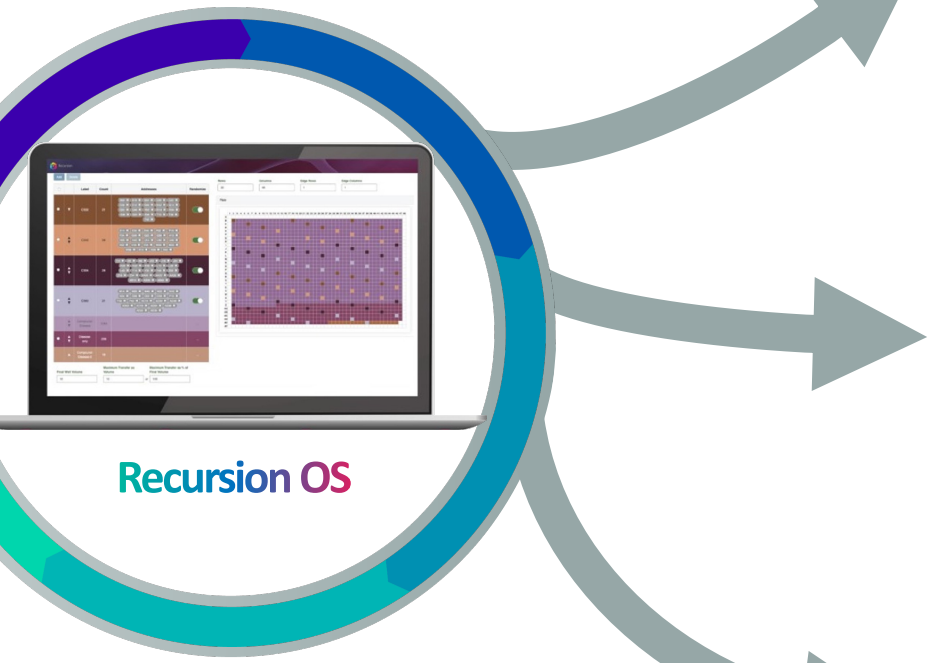
License subsets of data

Direct generation of new data internally **to maximize pipeline and partnership value-drivers**

- **Licensing**
- **Augment Recursion OS**

**Includes a single oncology indication from our Roche and Genentech collaboration.*

Harnessing value with a capital efficient business strategy



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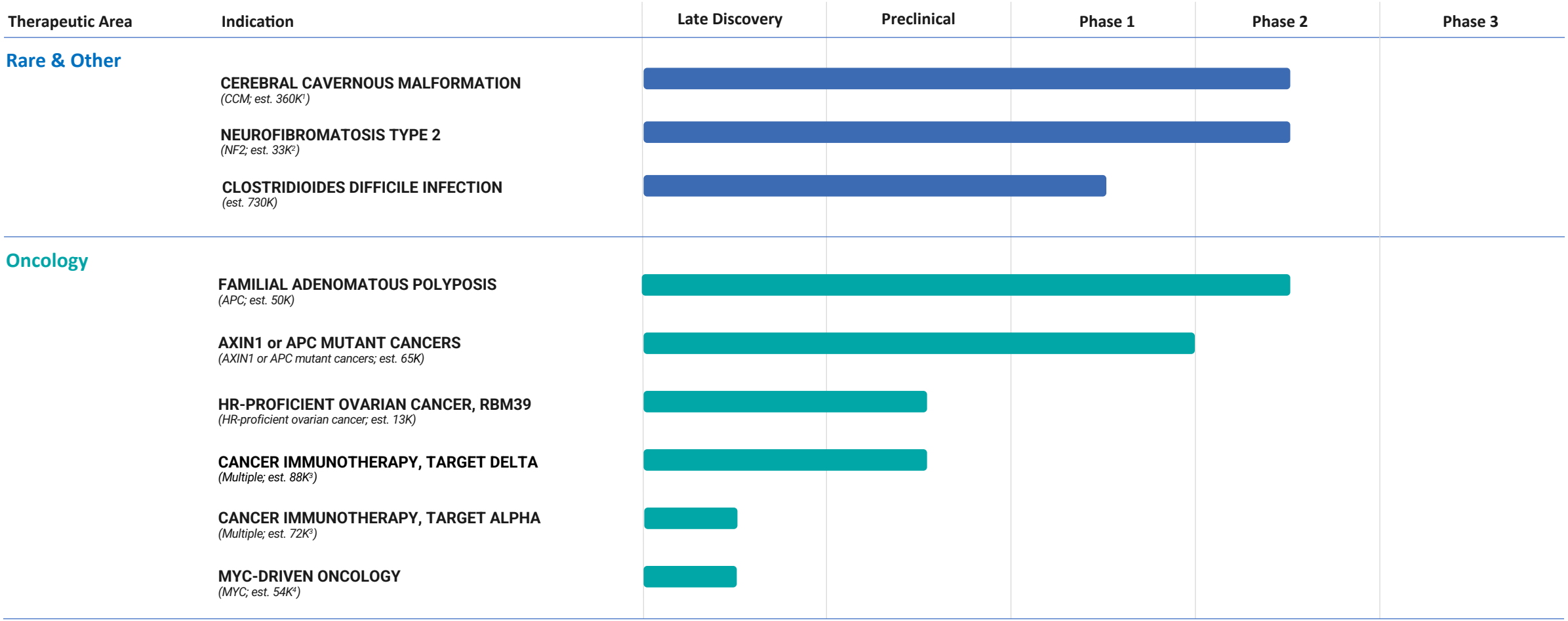

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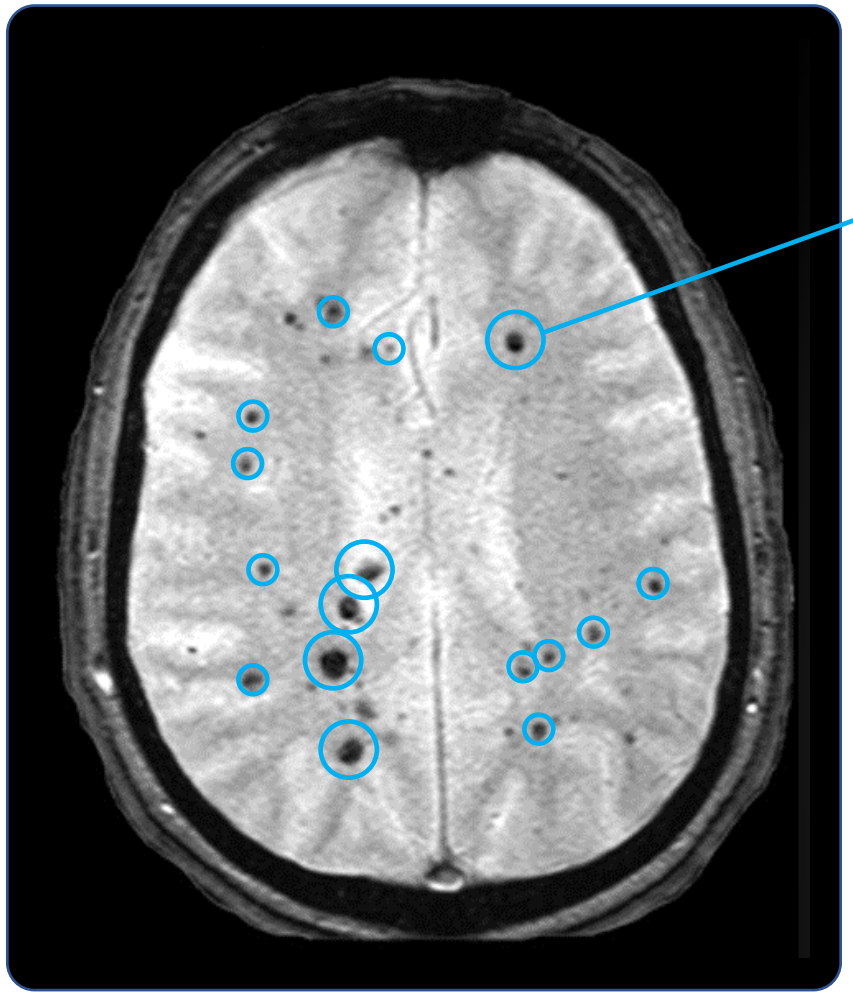
REC-994 for the Treatment of Symptomatic Cerebral Cavernous Malformations (CCM)

Target / MOA	Superoxide Scavenger
Molecule Type	Small Molecule
Lead Indication(s)	Cerebral Cavernous Malformations
Status	Phase 2
Designation(s)	US & EU Orphan Drug
Source of Insight	Recursion OS

Clinical: CCM

Disease Overview : Cerebral Cavernous Malformations (CCM)



Description

- Large unmet need for a novel nonsurgical treatment
- Vascular malformations (cavernomas) in the brain and spinal cord
- High-risk for hemorrhage creates “ticking time bomb”
- Progressive increase in CCM size and number over time in those with familial disease
- Debilitating symptoms, including intractable seizure, intracerebral hemorrhage, focal neurological deficits

“Historically, cavernomas have been managed primarily with observation, surgical resection, and occasionally radiotherapy. However, for a number of reasons, many patients with cavernomas must endure a life with neurologic symptoms”

- **Ryan Kellogg**, MD, Investigator at the University of Virginia

Clinical: CCM

Disease Overview : Cerebral Cavernous Malformations (CCM)

Julia – living with CCM

Patient Population – Large and Diagnosable

- **>1 million patients** worldwide live with these lesions today
- Caused by loss of function mutation in one of three genes: *CCM1 (60%), CCM2 (20%),* and *CCM3 (20%)*
- Inherited autosomal dominant mutation in 30-40%; or sporadic
- US symptomatic population is more than 5 times larger than other rare diseases like **Cystic Fibrosis** (>31k patients) and **Spinal Muscular Atrophy** (>33k patients)

No Approved Medical Therapy

- **No approved drugs** for CCM
- Most patients receive **no treatment** or only **symptomatic therapy**
- Surgical resection or stereotactic radiosurgery not always feasible because of location of lesion and is not curative

~360,000 Symptomatic US + EU5 patients

Sources: Angioma Alliance ; Flemming KD, et al . Population-Based Prevalence of Cerebral Cavernous Malformations in Older Adults: Mayo Clinic Study of Aging. JAMA Neurol. 2017 Jul 1;74(7):801-805. doi: 10.1001/jamaneurol.2017.0439. PMID: 28492932; PMCID: PMC5647645 ; Spiegler S, et al Cerebral Cavernous Malformations: An Update on Prevalence, Molecular Genetic Analyses, and Genetic Counselling. Mol Syndromol. 2018 Feb;9(2):60-69. doi: 10.1159/000486292. Epub 2018 Jan 25. PMID: 29593473; PMCID: PMC5836221.

Clinical: CCM

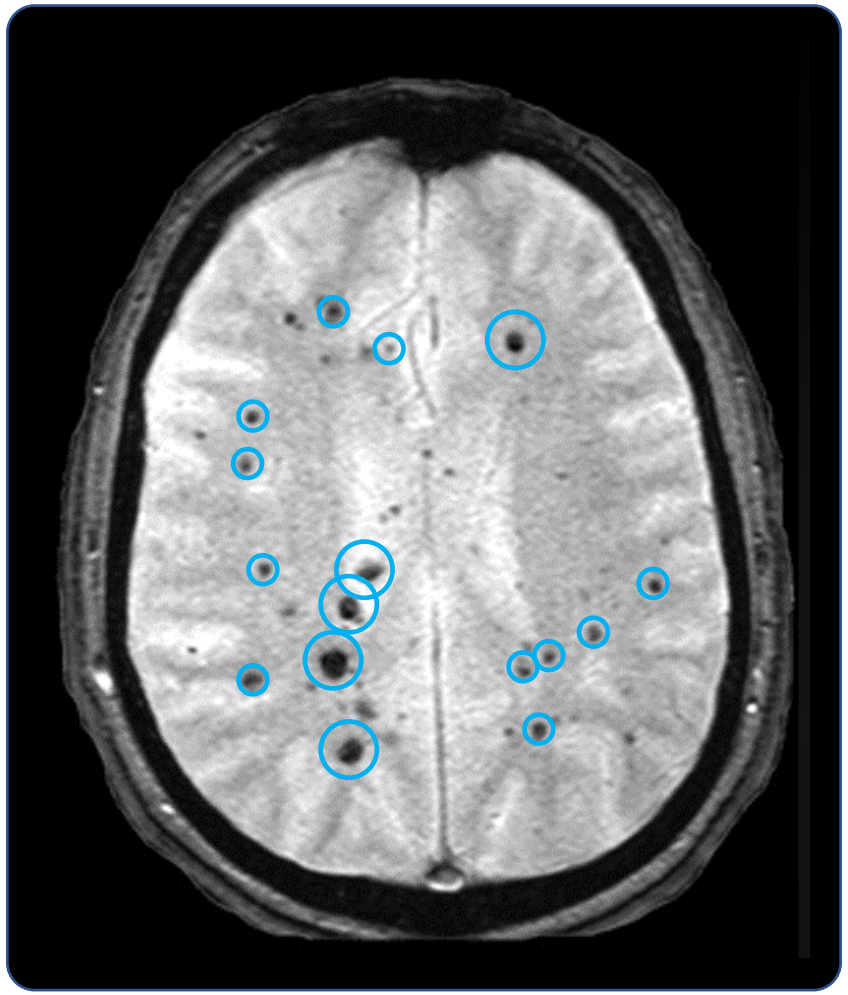
Disease Overview : CCM is an Under-Appreciated Orphan Disease

Non-oncology Orphan Indication	Product	U.S. + EU5 Prevalence
Cerebral cavernous malformation (CCM)	**REC-994 (Recursion)**	**>1,800,000 (Symptomatic: ~360,000)**
Idiopathic pulmonary fibrosis (IPF)	Esbriet (pirfenidone)	>160,000
Cystic fibrosis (CF)	VX-669/ VX-445 + Tezacaftor + Ivacaftor - Vertex	>55,000
Spinal muscular atrophy (SMA)	SPINRAZA (nusinersen)	>65,000

Sources: Angioma Alliance ; Flemming KD, et al . Population-Based Prevalence of Cerebral Cavernous Malformations in Older Adults: Mayo Clinic Study of Aging. JAMA Neurol. 2017 Jul 1;74(7):801-805. doi: 10.1001/jamaneurol.2017.0439. PMID: 28492932; PMCID: PMC5647645 ; Spiegler S, et al Cerebral Cavernous Malformations: An Update on Prevalence, Molecular Genetic Analyses, and Genetic Counselling. Mol Syndromol. 2018 Feb;9(2):60-69. doi: 10.1159/000486292. Epub 2018 Jan 25. PMID: 29593473; PMCID: PMC5836221; Maher T, et al Global incidence and prevalence of idiopathic pulmonary fibrosis. Respir Res. 2021 Jul 7;22(197). Doi: 10.1186/s12931-021-01791-z. PMID: 34233665. DRG 2022 Solutions, Report: Epidemiology, Cystic Fibrosis. CDC: SMA

Clinical: CCM

Therapeutic Approach to Cerebral Cavernous Malformations (CCM)



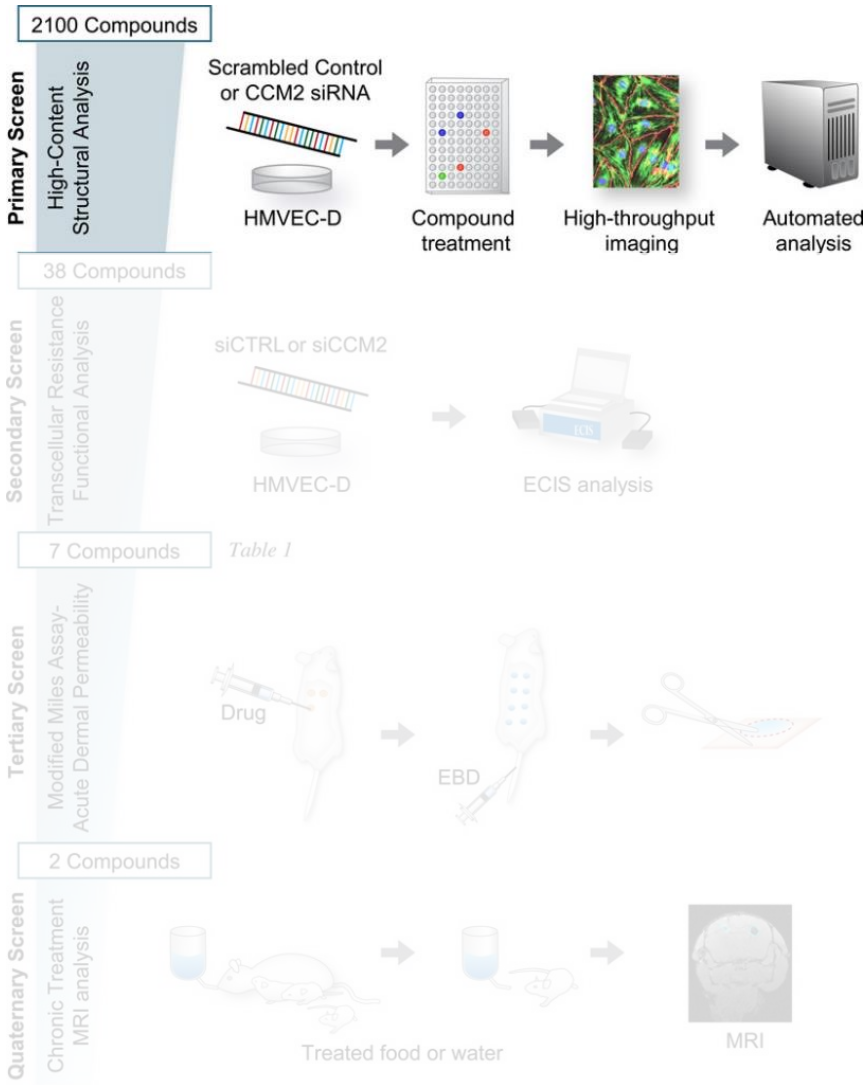
Novel therapeutic approach

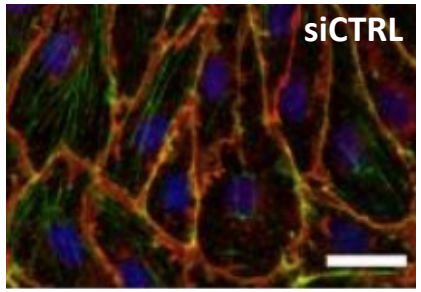
- Symptoms associated with both increased size of lesions, but also inflammation or activation of lesions within the immunopriviledged environment of the brain
- Lesions arise from the capillary bed and are not high-pressure (e.g., the lesion growth is unlikely to be primarily driven by the *law of Laplace*)

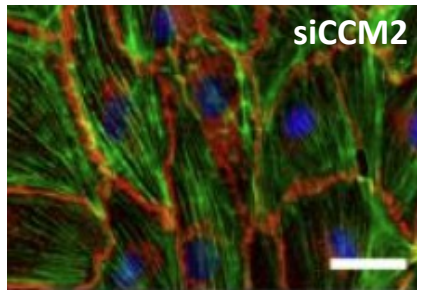
- *The Recursion Vascular Stability Hypothesis:*
  - Eliminating the lesions may <u>not</u> be required for significant patient benefit
  - Slowing or halting the growth of the lesions while mitigating lesion leakiness and endothelial cell activation to halt the feed-forward inflammatory reaction *may* mitigate some symptoms and be beneficial to patients

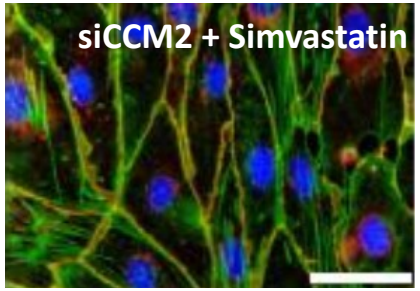
Clinical: CCM

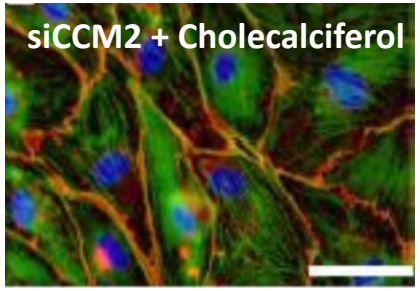
CCM – Applied prototyping of the Recursion OS

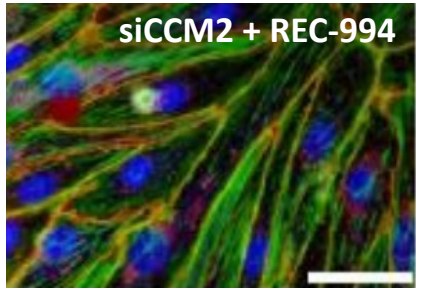












Using an early version of our Recursion OS in an academic setting, we identified about 39 molecules out of 2,100 screened that according to a machine learning classifier rescued a complex unbiased phenotype associated with CCM2 loss of function.

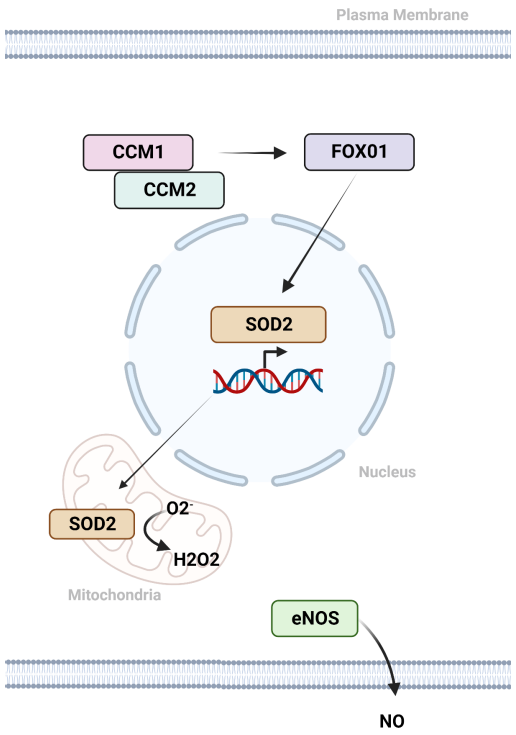
Through a set of follow-on confirmatory assays of increasing complexity, REC-994 stood out as one of two compounds we tested in a 5-month chronic CCM animal model where both compounds demonstrated significant benefit.

Gibson, et al. Strategy for identifying repurposed drugs for the treatment of cerebral cavernous malformation. Circulation, 2015

Clinical: CCM

REC-994 – Mechanism of Action

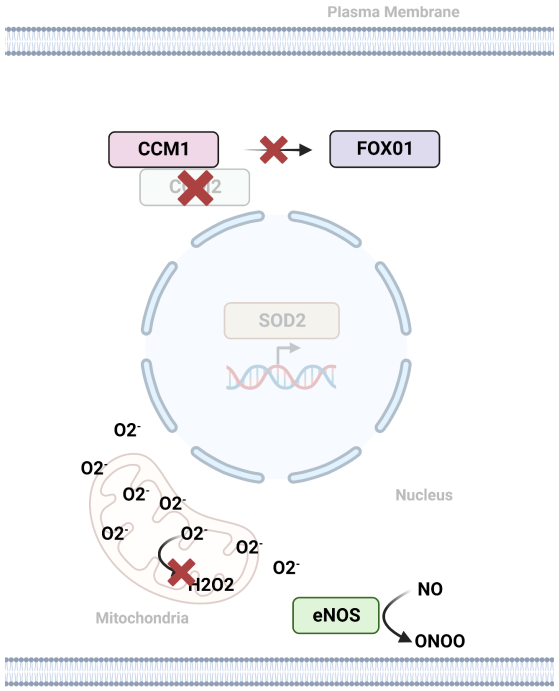
Healthy



By regulating SOD2, CCM1 (KRIT1) & CCM2 suppress:

- Endothelial cell activation
- Smooth muscle proliferation
- Leukocyte adhesion
- Platelet aggregation

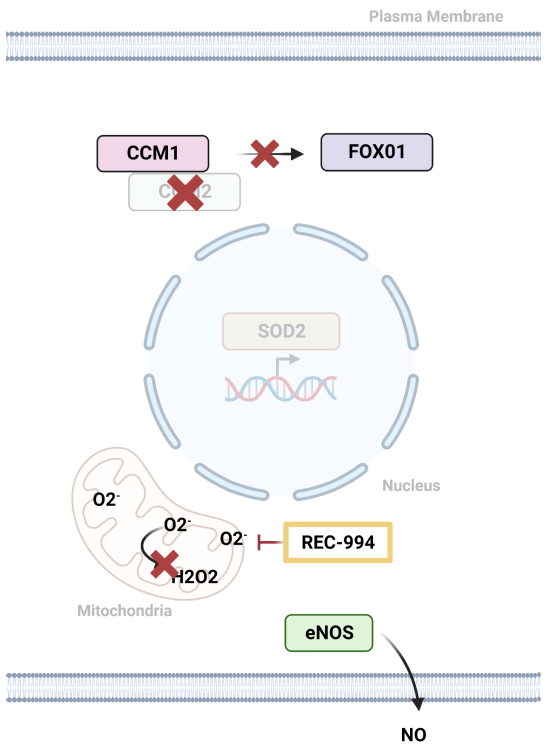
CCM



***CCM1* or *CCM2* loss of function leads to activated endothelium:**

- Decreased cell-cell junctional integrity and increased monolayer permeability
- Impaired vasodilation
- Cavernous angioma formation

REC-994 Impact



Dosing of REC-994 restores normal function:

- Normalized ROS balance
- Restores quiescent endothelial cell state
- Stabilizes endothelial barrier function

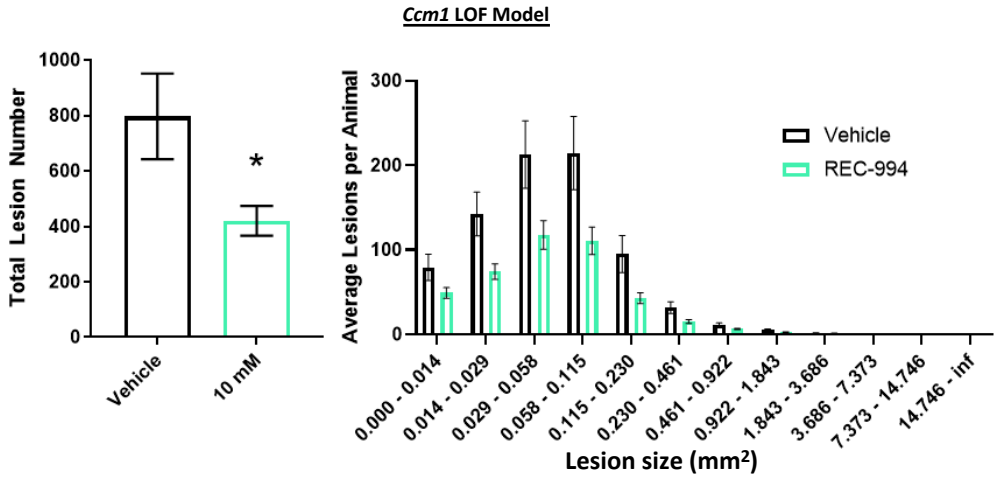
Adapted from REC-994 Investigator Brochure

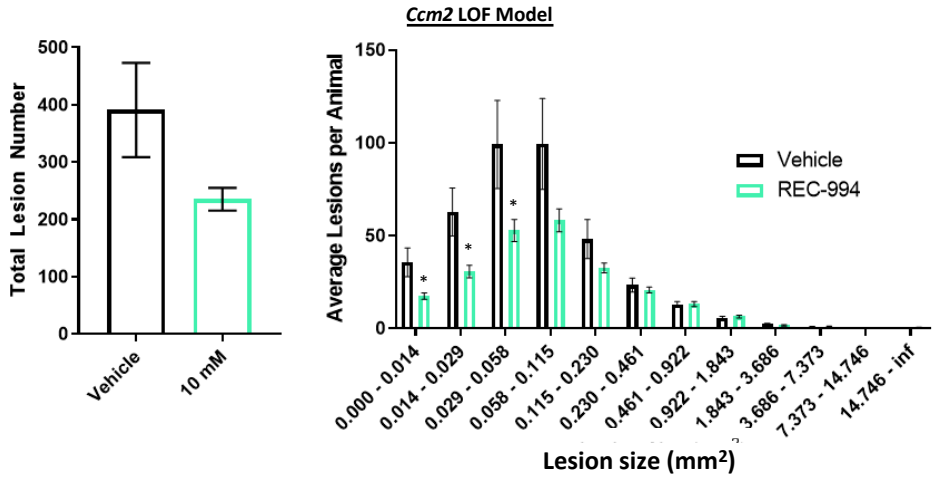
Clinical: CCM

Further Confidence : Preclinical Studies Confirm Insight

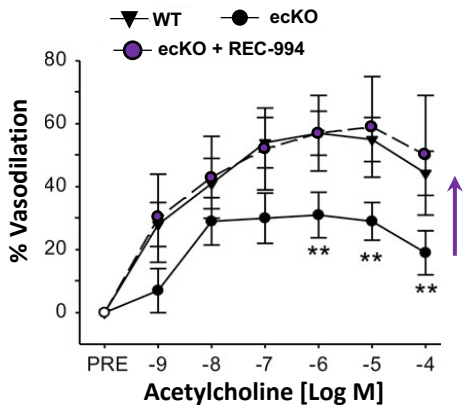
Preclinical Studies: REC-994 reduces lesion burden and ameliorates vascular defects in genetic mouse models of CCM

1 Reduces lesion number and size in *Ccm1* and *Ccm2* LOF mouse models



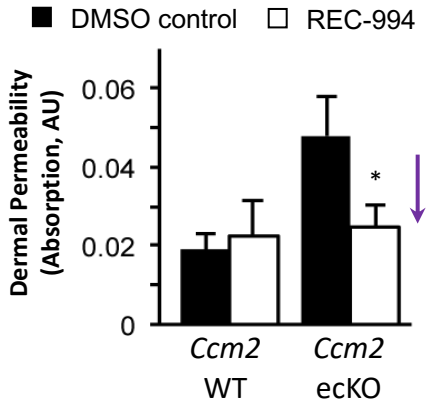


2 Completely rescues acetylcholine-induced vasodilation defect



REC-994 stabilizes the integrity of vasculature against challenges to permeability

3 Rescues dermal permeability defect in CCM2 mice



Vascular permeability is a clinically relevant feature of CCM lesions

Source: Data above from Gibson, et al. Strategy for identifying repurposed drugs for the treatment of cerebral cavernous malformation. Circulation, 2015 or Recursion internal data (Ccm1 mouse model)

Clinical: CCM

Further Confidence : Clinical Studies Confirming Safety

REC-994 Phase 1 Studies - well-tolerated with no dose-dependent adverse events in SAD and MAD

MAD Study	Placebo	50 mg	200 mg	400 mg	800 mg
Total Number of TEAEs	5	0	10	4	15
Total Subjects with ≥ one TEAE	4	0	3	3	4
Severity					
Mild	3	0	3	3	3
Moderate	1	0	0	0	1
Severe	0	0	0	0	0
Relationship to Study Drug					
None	3	0	0	2	1
Unlikely	1	0	1	1	2
Possibly	0	0	0	0	0
Likely	0	0	2	0	1
Definitely	0	0	0	0	0
Total Number of SAEs	0	0	0	0	0
Total Subject with ≥ one TEAE	0	0	0	0	0
Discontinued Study Drug Due to AE	0	0	0	0	0

Source: REC-994 for the Treatment of Symptomatic Cerebral Cavernous Malformation (CCM) Phase 1 SAD and MAD Study Results. Oral Presentation at Alliance to Cure Scientific Meeting. 2022 Nov 17

Clinical: CCM

SYCAMORE Clinical Trial : REC-994 Phase 2 Underway

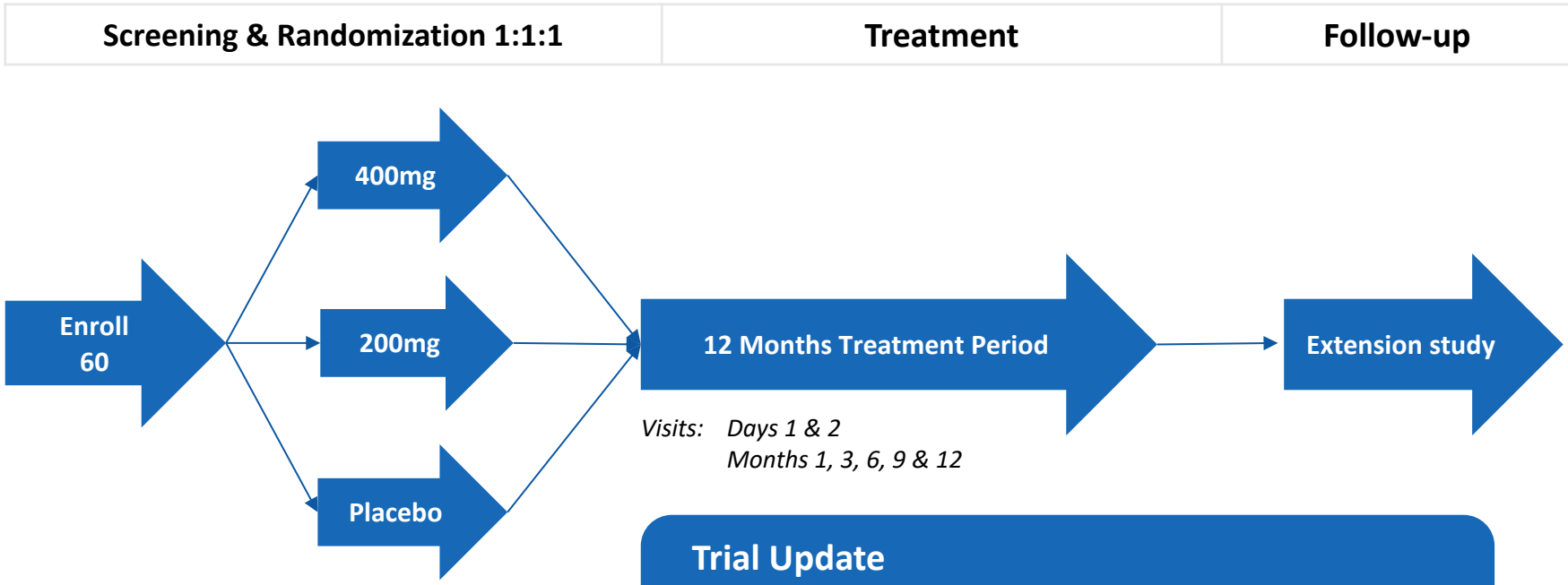
Phase 2 trial initiated in Q1 2022

Enrollment Criteria

- MRI-confirmed CCM lesion(s)
- Familial or sporadic
- Symptoms directly related to CCM

Outcome Measures

- Primary: Safety and tolerability
  - Adverse events & symptoms
- Secondary: Efficacy
  - Clinician-measured outcomes (CGI and PGI)
  - Imaging of CCM lesions – number, size & rate of change
  - Impact of acute stroke (mRS, NIHSS)
  - Patient reported outcomes (SMSS, PROMIS-29, CCM HI, symptom questionnaires)
- Exploratory: Biomarkers



Trial Update

- Enrollment is complete
- 100% of participants have enrolled
- Several participants have completed twelve months of treatment and entered long-term extension study
- **Top-line data expected 2H 2024**

Source: https://www.clinicaltrials.gov/ct2/show/NCT05130866?term=recursion&draw=2&rank=3; https://www.SycamoreCCM.com/

REC-2282 for the Treatment of Progressive Neurofibromatosis Type 2 (NF2) Mutated Meningiomas

Target / MOA	HDAC Inhibitor
Molecule Type	Small Molecule
Lead Indication(s)	NF2 Mutated Meningiomas
Status	Phase 2/3
Designation(s)	Fast Track; US and EU Orphan Drug
Source of Insight	Recursion OS

Clinical: NF2

Disease Overview : Neurofibromatosis Type 2 (NF2)

Ricki – living with NF2

Patient Population – Large and Diagnosable

- Rare autosomal dominant tumor syndrome resulting from biallelic inactivation of the *NF2* gene which leads to deficiencies in the tumor suppressor protein merlin
- **NF2 can be inherited or spontaneous** (>50% of patients represent new mutations); up to 1/3 are mosaic
- CNS manifestations: meningiomas and vestibular schwannomas; mean age at presentation: **~20 years**

No Approved Medical Therapy

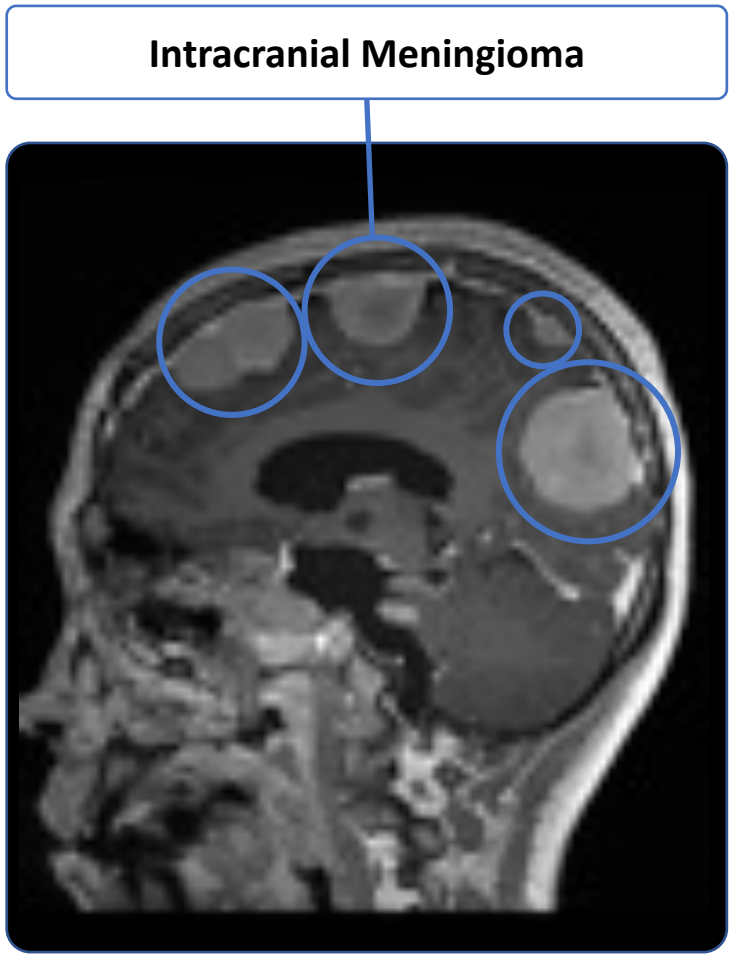
- **No approved drugs** for NF2
- **Surgery** is standard of care (when feasible)
- Location may make complete resection untenable, leading to hearing loss, facial paralysis, poor balance and visual difficulty

Source: https://rarediseases.org/rare-diseases/neurofibromatosis-2

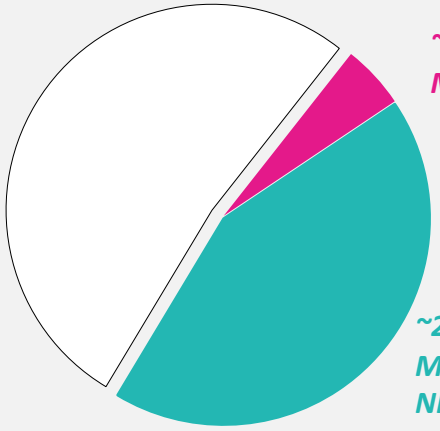
Clinical: NF2

Disease Overview : Neurofibromatosis Type 2 (NF2) Meningiomas

- Most tumors are benign and slow growing but location in CNS leads to serious morbidity or mortality
- Prognosis is adversely affected by early age at onset, a higher number of meningiomas and having a truncating mutation



>66,000 Patients have Meningiomas



~3,500 NF2 Patients have Meningiomas (Familial)

~29,500 Patients who have Meningiomas that Harbor NF2 Mutations (Sporadic)

~33,000

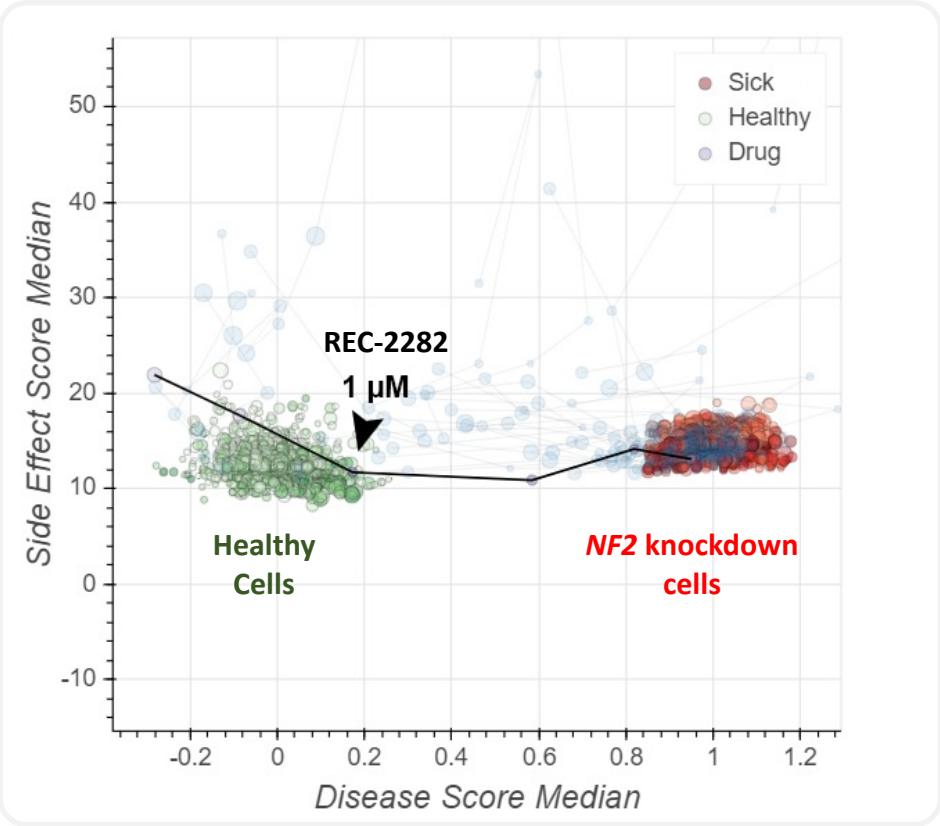
Treatable US + EU5 patients

- Threatens mortality; if amenable, surgical excision is primary intervention
- Many patients have multiple meningiomas that exhibit heterogenous behavior and asynchronous growth
- **Stasis or shrinkage of tumor could improve prognosis**

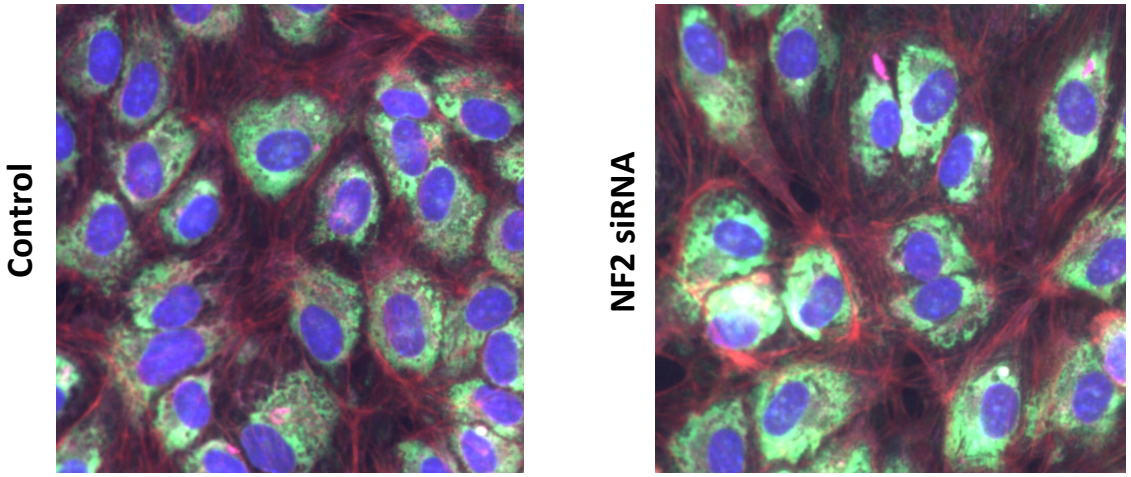
Source: Pemov, et al. Comparative clinical and genomic analysis of neurofibromatosis type 2-associated cranial and spinal meningiomas. Nature. 2020 Jul 28;10(12563). Doi: https://doi.org/10.1038/s41598-020-69074-z; NORD

Clinical: NF2

Insight from OS : REC-2282 Rescued Loss of *NF2*



REC-2282 identified as rescuing HUVEC cells treated with NF2

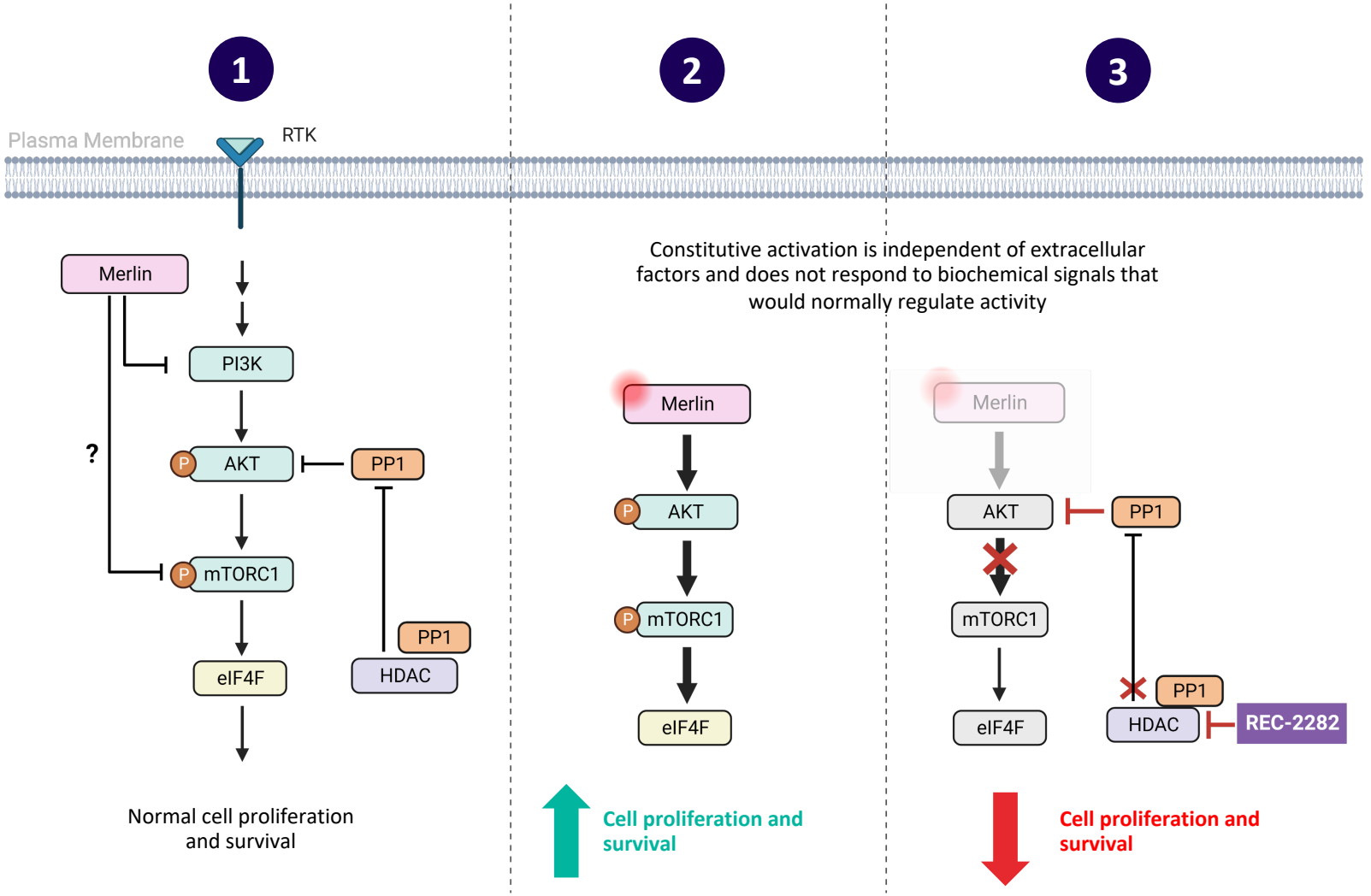


HUVEC, human umbilical vein endothelial cells; NF2, neurofibromatosis type 2; siRNA, small interfering RNA.

Clinical: NF2

REC-2282 – Mechanism of Action

Orally Bioavailable, CNS-penetrating, Small Molecule HDAC Inhibitor



1. NF2 encodes for the protein Merlin and negatively regulates mTOR signaling

2. Loss of Merlin leads to increased signaling in the PI3K/AKT/mTOR pathway

3. Oncogenic mTOR signaling arrested with HDAC inhibitors

AKT, protein kinase B; eIF4F, eukaryotic initiation factor 4F; HDAC, histone deacetylase; mTor, mammalian target of rapamycin; mTORC1; mammalian target of rapamycin complex 1; NF2, neurofibromatosis type 2; PI3K, phosphoinositide 3-kinase; PP1, protein phosphate 1; Ras, reticular activating system.

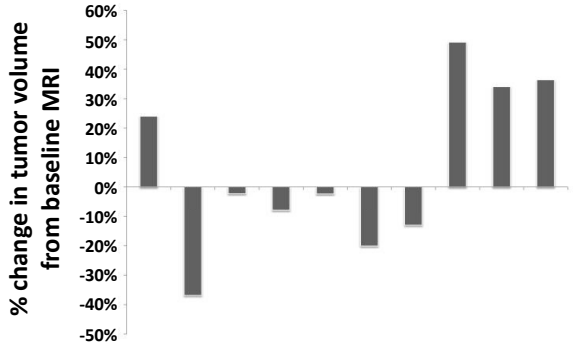
Clinical: NF2

Further Confidence : Preclinical Studies Confirming Insight

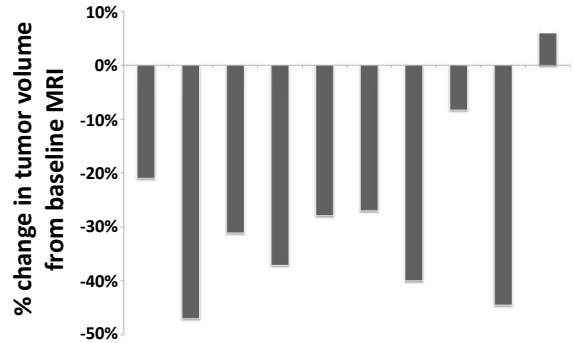
REC-2282 preclinical studies demonstrated clear in-vivo efficacy in multiple NF2 tumor types

1 **Shrinks vestibular schwannoma xenografts in nude mice**

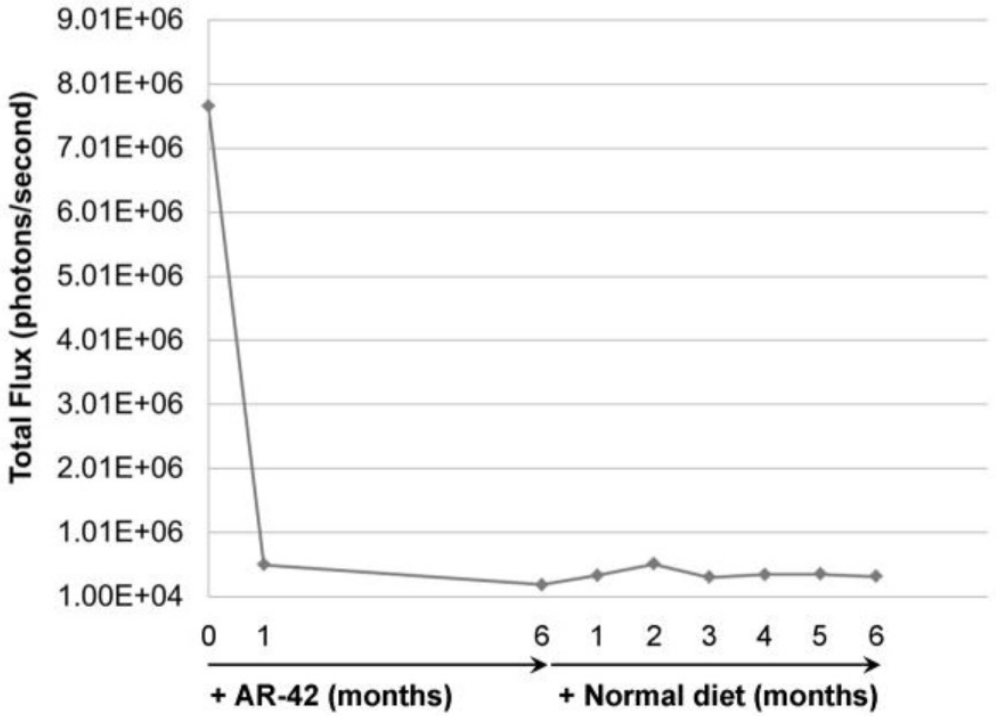
Vehicle
% Change tumor vol.



REC-2282
% Change tumor vol.



2 **Prevents growth & regrowth of NF2-deficient meningioma model in mice**

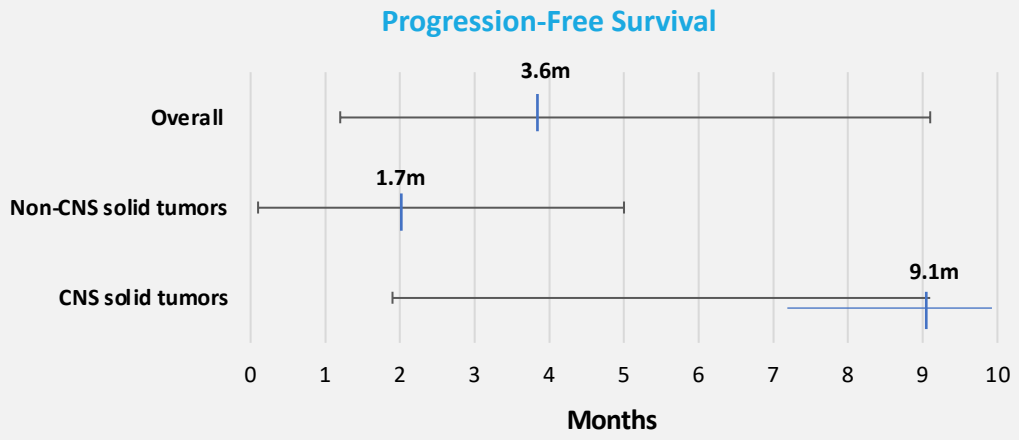


https://link.springer.com/article/10.1007/s00280-020-04229-3

Clinical: NF2

Further Confidence : Prior Studies Suggest Potential Therapeutic Benefit

- **Evaluable Patients: CNS Solid Tumors: NF2 N=5; Non-CNS Solid Tumors: N=10**
- PFS: CNS solid tumors = **9.1** months; Non-CNS solid tumors = **1.7** months
- Best overall response = **SD in 8/15 patients** (53%; 95% CI 26.6–78.7)
- Longest duration of follow-up without progression: > **27 months** (N=1)
- Most common AEs: **cytopenia, fatigue, nausea**



Well understood clinical safety ...

- Multiple investigator-initiated studies in oncology indications
- Lengthy human clinical exposure in NF2 – multiple patients on drug for several years
- Well-characterized side effect profile

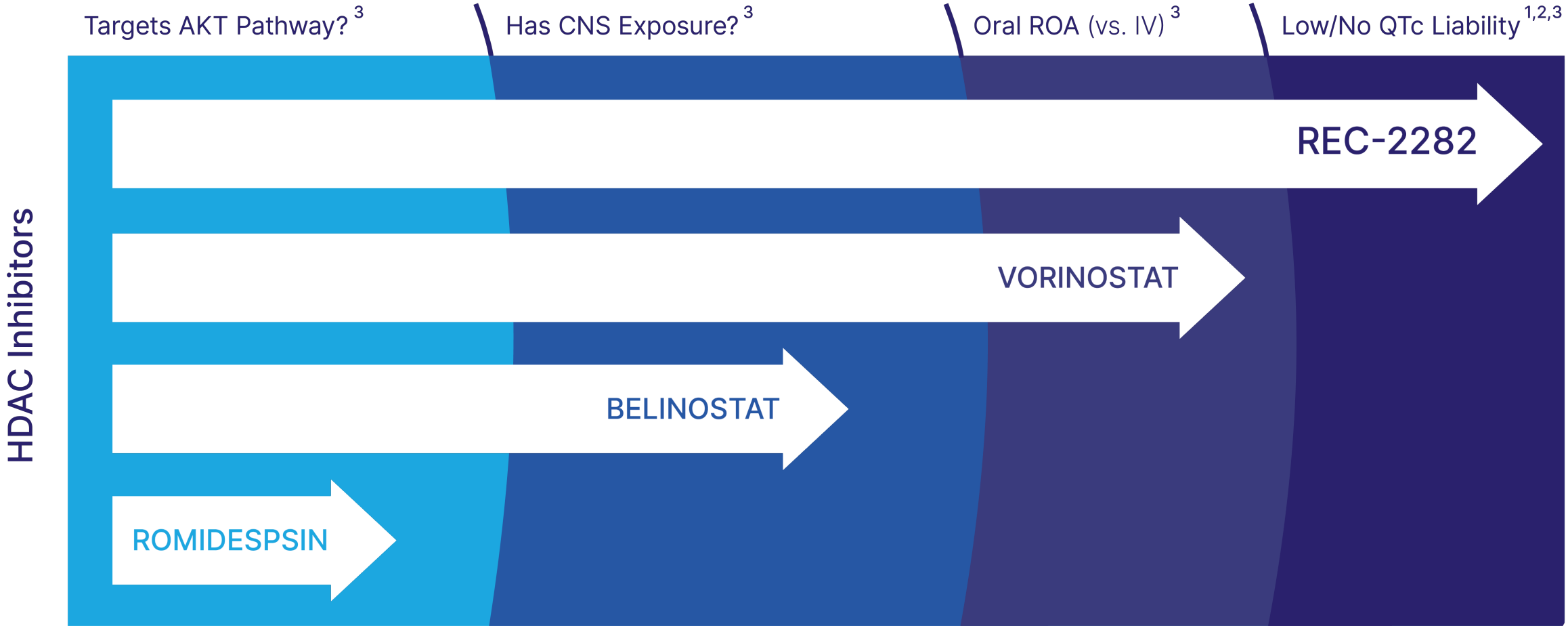
... with a drug-like profile

- Established and scalable API manufacturing process
- Multiple cGMP batches of 10mg and 50mg tablets have been manufactured
- Excellent long-term stability

Clinical: NF2

REC-2282 Appears Well Suited for NF2 vs Other HDAC Inhibitors

REC-2282 Would be First-In-Class HDAC Inhibitor for Treatment of NF2 Meningiomas



[1] Sborov DW, et al. A phase 1 trial of the HDAC inhibitor AR-42 in patients with multiple myeloma and T- and B-cell lymphomas. Leuk Lymphoma. 2017 Oct;58(10):2310-2318.
[2] Collier KA, et al. A phase 1 trial of the histone deacetylase inhibitor AR-42 in patients with neurofibromatosis type 2-associated tumors and advanced solid malignancies. Cancer Chemother Pharmacol. 2021 May;87(5):599-611.
[3] Prescribing Information of Vorinostat/Belinostat/Romidepsin respectively

Clinical: NF2

POPLAR Clinical Trial : REC-2282 for NF2 Phase 2/3 Underway

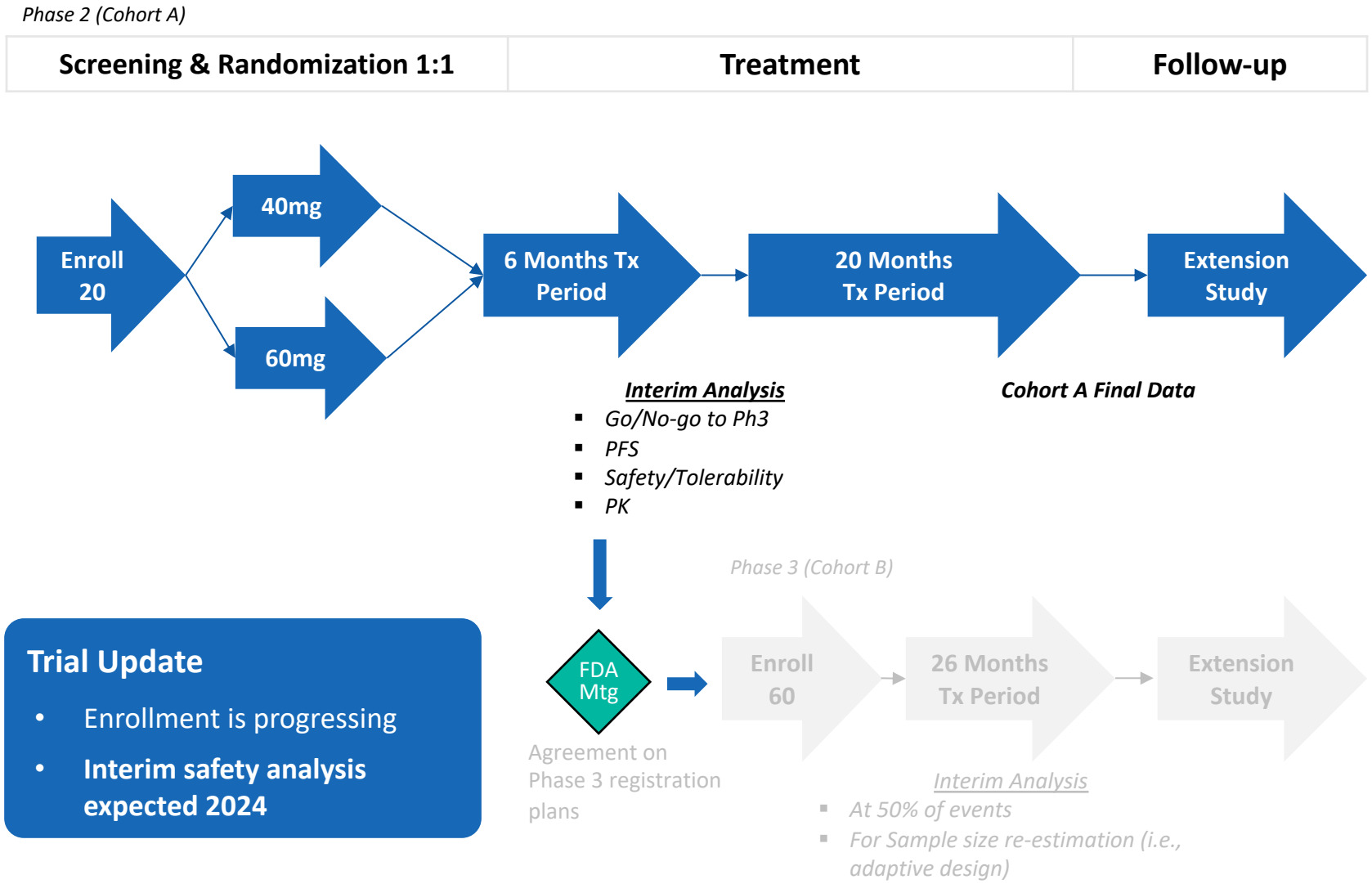
Phase 2/3 trial initiated in Q2 2022

Enrollment Criteria

- MRI-confirmed progressive meningioma
- Either of the below
  - Sporadic meningioma with confirmed NF2 mutation
  - Confirmed diagnosis of NF2 disease

Outcome Measures

- Primary: Safety and tolerability
  - Progression-free survival
  - Time to progression
  - Duration of response
  - Overall response rate



Trial Update

- Enrollment is progressing
- **Interim safety analysis expected 2024**

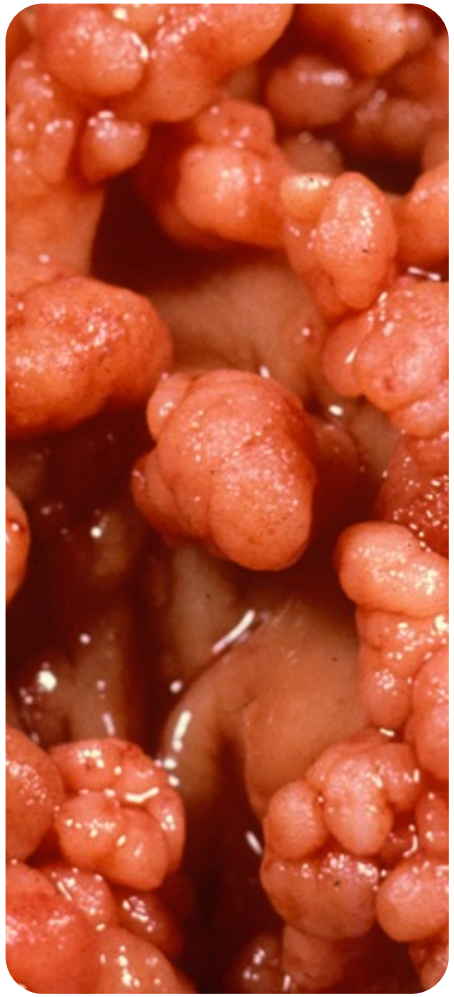
https://clinicaltrials.gov/ct2/show/NCT05130866

REC-4881 for the Treatment of Familial Adenomatous Polyposis (FAP)

Target / MOA	MEK Inhibitor
Molecule Type	Small Molecule
Lead Indication(s)	Familial Adenomatous Polyposis
Status	Phase 2
Designation(s)	Fast Track; US and EU Orphan Drug
Source of Insight	Recursion OS

Clinical: FAP

Disease Overview : Familial Adenomatous Polyposis



Polyps Found in Colon and Upper GI Tract

Patient Population – Easily Identifiable

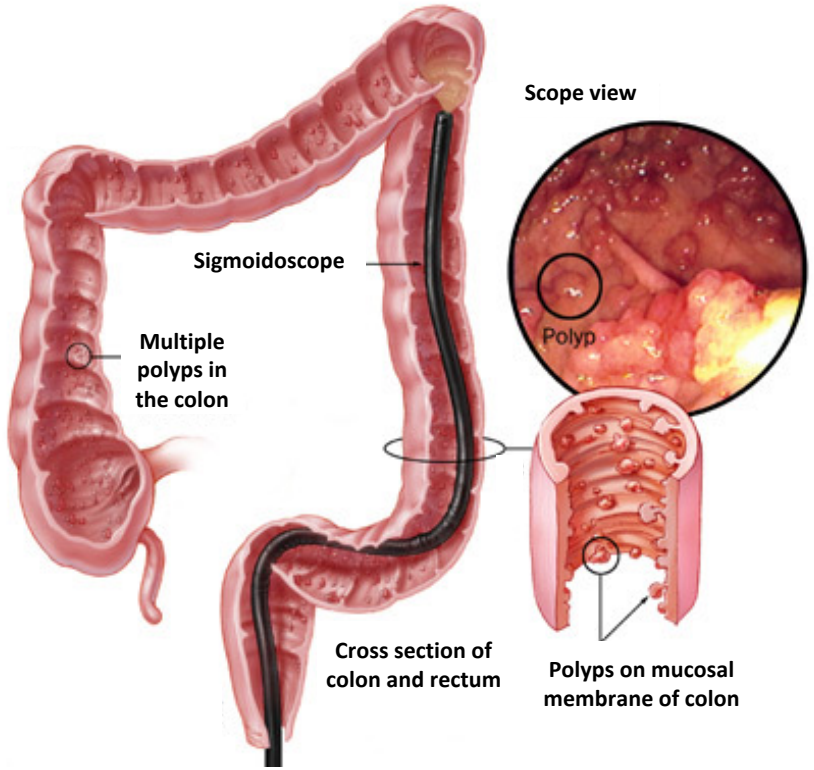
- Autosomal dominant tumor predisposition syndrome caused by a mutation in the APC gene
- Classic FAP (germline mutation) :
  - Hundreds to thousands of polyps in colon and upper GI tract
  - Extraintestinal manifestations (e.g., desmoid tumors)
  - 100% likelihood of developing colorectal cancer (CRC) before age 40, if untreated

~50,000 Diagnosed US + EU5 patients

https://www.hopkinsmedicine.org/health/conditions-and-diseases/familial-adenomatous-polyposis

Clinical: FAP

Disease Overview : Familial Adenomatous Polyposis – Standard of Care



No Approved Medical Therapy

- Standard of care: colectomy during adolescence (with or without removal of rectum)
- Post-colectomy, patients still at significant risk of polyps progressing to GI cancer
- Significant decrease in quality-of-life post-colectomy: continued endoscopies and surgical intervention

"Despite progress with surgical management, the need for effective therapies for FAP remains high due to continued risk of tumors post-surgery"

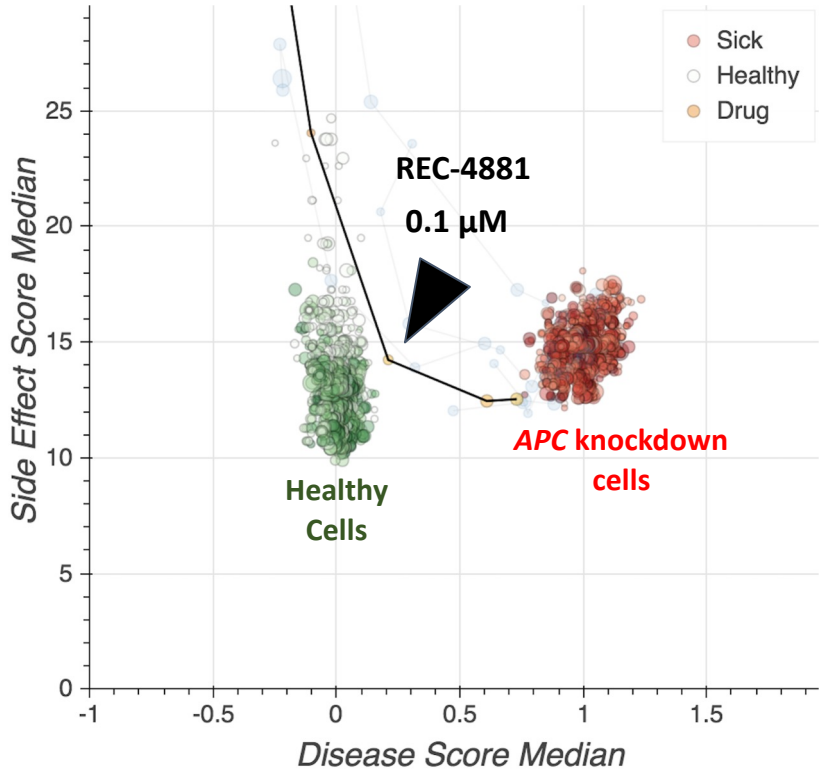
- **Niloy Jewel Samadder**, MD, Mayo Clinic

https://www.hopkinsmedicine.org/health/conditions-and-diseases/familial-adenomatous-polyposis

Clinical: FAP

Insight from OS : Rescued Loss of *APC*, Inhibited Tumor Growth

REC-4881 rescued phenotypic defects of cells with APC knockdown



- Compared to thousands of other molecules tested, REC-4881 rescued phenotypic defects substantially better (including better rescue than other MEK inhibitors) for APC specific knockdown

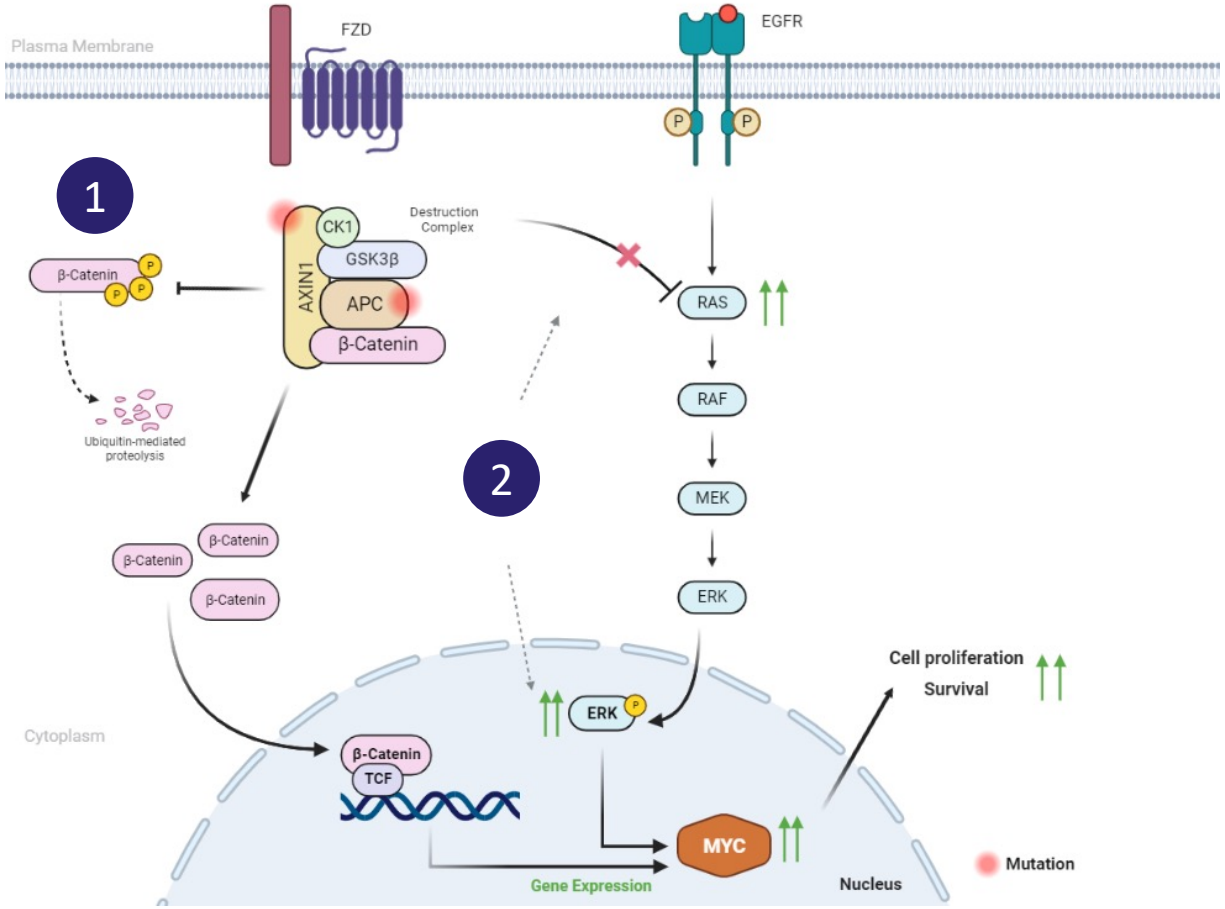
- Findings validated in tumor cell lines and spheroids grown from human epithelial tumor cells with *APC* mutation
  - 1,000x more selectivity in tumor cell lines with *APC* mutation
  - Inhibited growth and organization of spheroids

Clinical: FAP

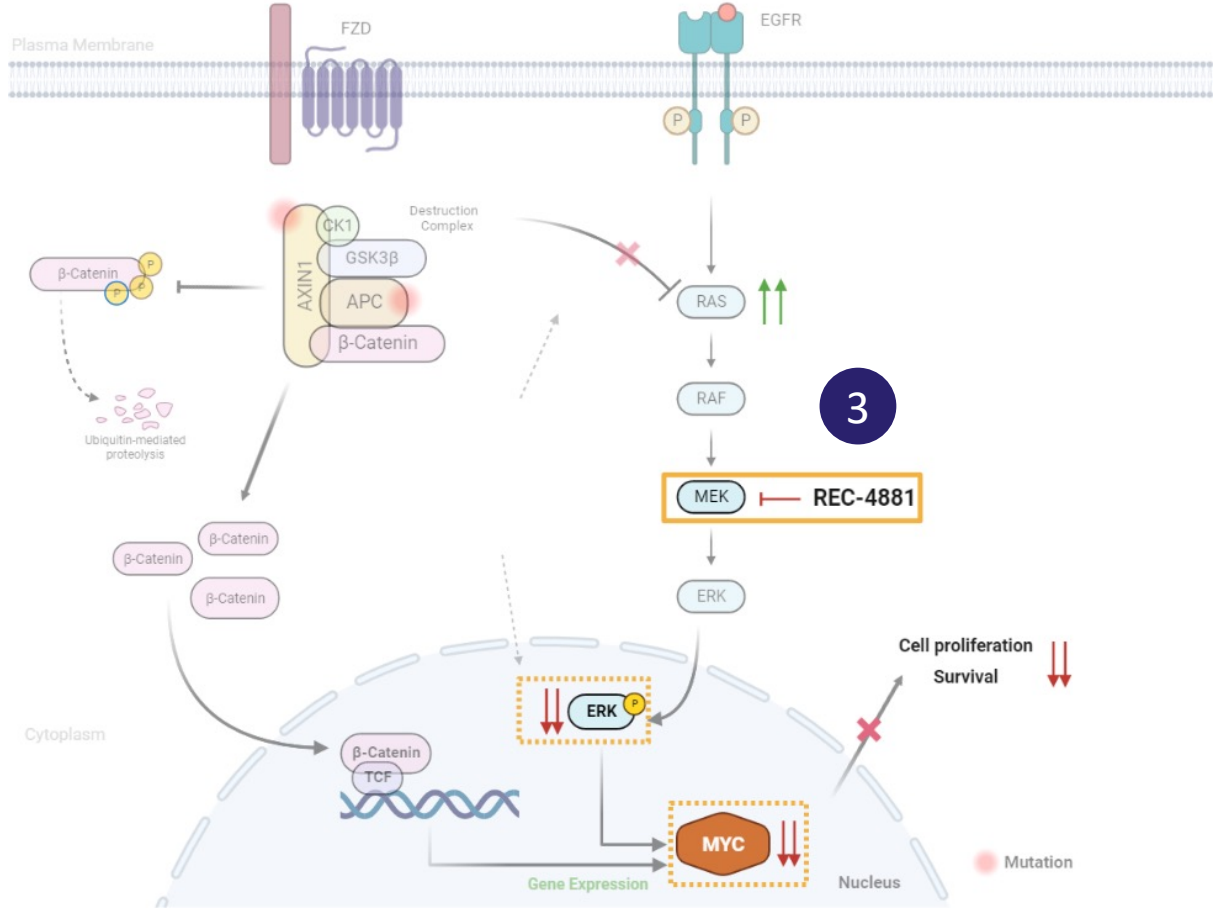
MoA : REC-4881 Blocks Wnt Mutation Induced MAPK Signaling

Orally Bioavailable, Small Molecule MEK Inhibitor

Disease State



REC-4881 Impact



3 REC-4881 inhibits MEK 1/2 and recovers the destabilization of RAS by the β-Catenin destruction complex, restoring the cell back to a Wnt-off like state

Jeon, WJ, et al. (2018). Interaction between Wnt/β-catenin and RAS-ERK pathways and an anti-cancer strategy via degradations of β-catenin and RAS by targeting the Wnt/β-catenin pathway. npj Precision Oncology, 2(5).

Clinical: FAP

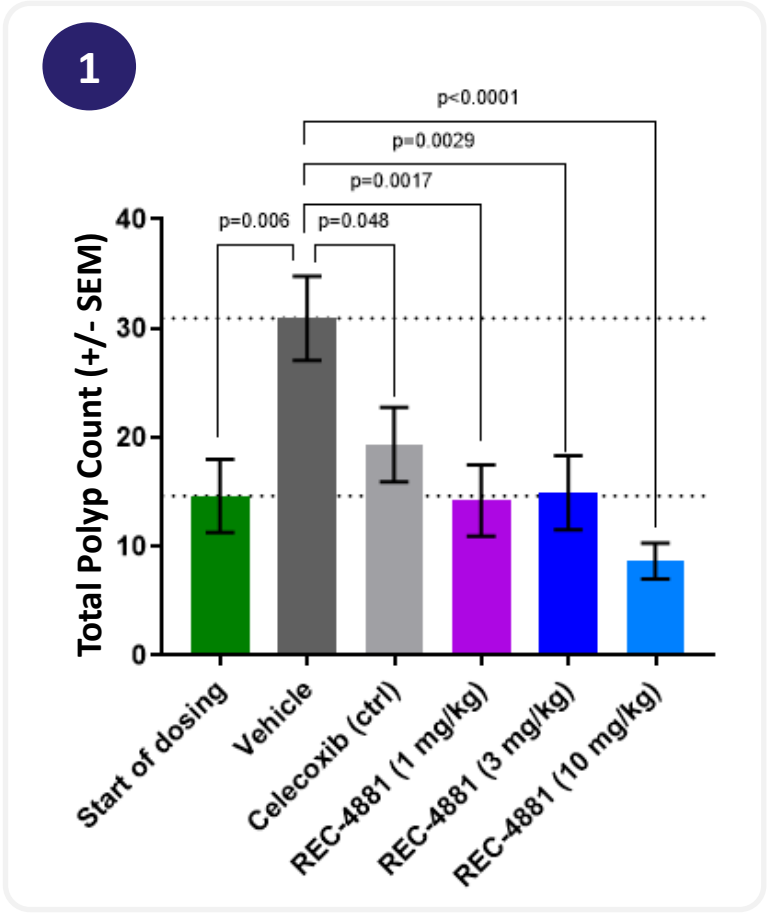
Further Confidence : Preclinical Studies Confirming Reduction in Polyp Count and High-Grade Dysplasia

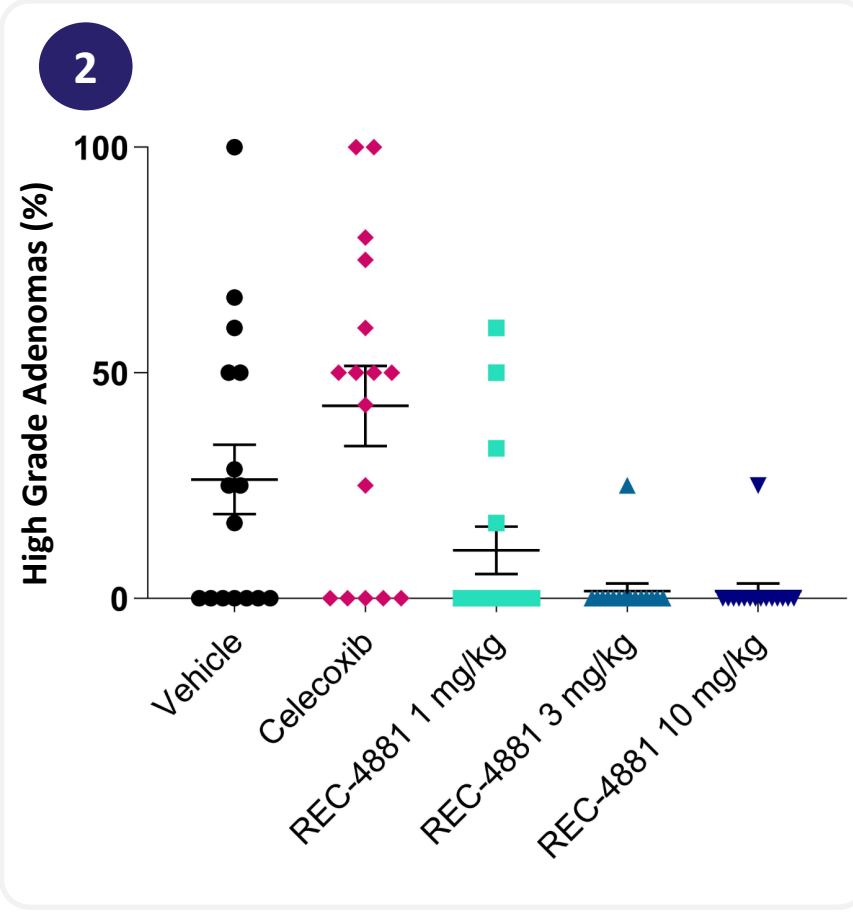
- In-vivo efficacy in APCmin mouse model
- Apc^{min} = FAP disease model
- Mice treated once daily for 8 weeks

After 8 weeks of treatment:

1 ↓ **Polyp Count**

2 ↓ **High-Grade Dysplasia**





APC, adenomatosis polyposis coli; ERK, extracellular signal-regulated kinase; FAP, familial adenomatous polyposis.

Clinical: FAP

Further Confidence : Clinical Data Generated by Recursion

REC-4881-101: Single-center, double-blind, placebo-controlled, dose-escalation study in healthy volunteers

- Group 1 (n=13): Food effect crossover (REC-4881 4 mg/PBO [fed/fasted]), followed by single dose REC-4881 8 mg/PBO [fed]
- Group 2 (n=12): Matched single ascending dose (REC-4881 4 mg/PBO; REC-4881 8 mg/PBO; REC-4881 12 mg/PBO)

Accomplished

Recursion formulation yields exposures comparable to Takeda's formulation (molecule in-licensed from Takeda)

No food effect

Dose proportional increases in exposure

Similar to C20001 study, observed pERK inhibition (i.e., target engagement) at 8 mg and 12 mg doses

Acceptable safety profile

Note: AE, adverse event; MEK, mitogen-activated protein kinase; NHV, normal healthy volunteer; pERK, phosphorylated extracellular signal-regulated kinase; SAE, serious adverse event.

Clinical: FAP

TUPELO Clinical Trial : REC-4881 for FAP Phase 2 Underway

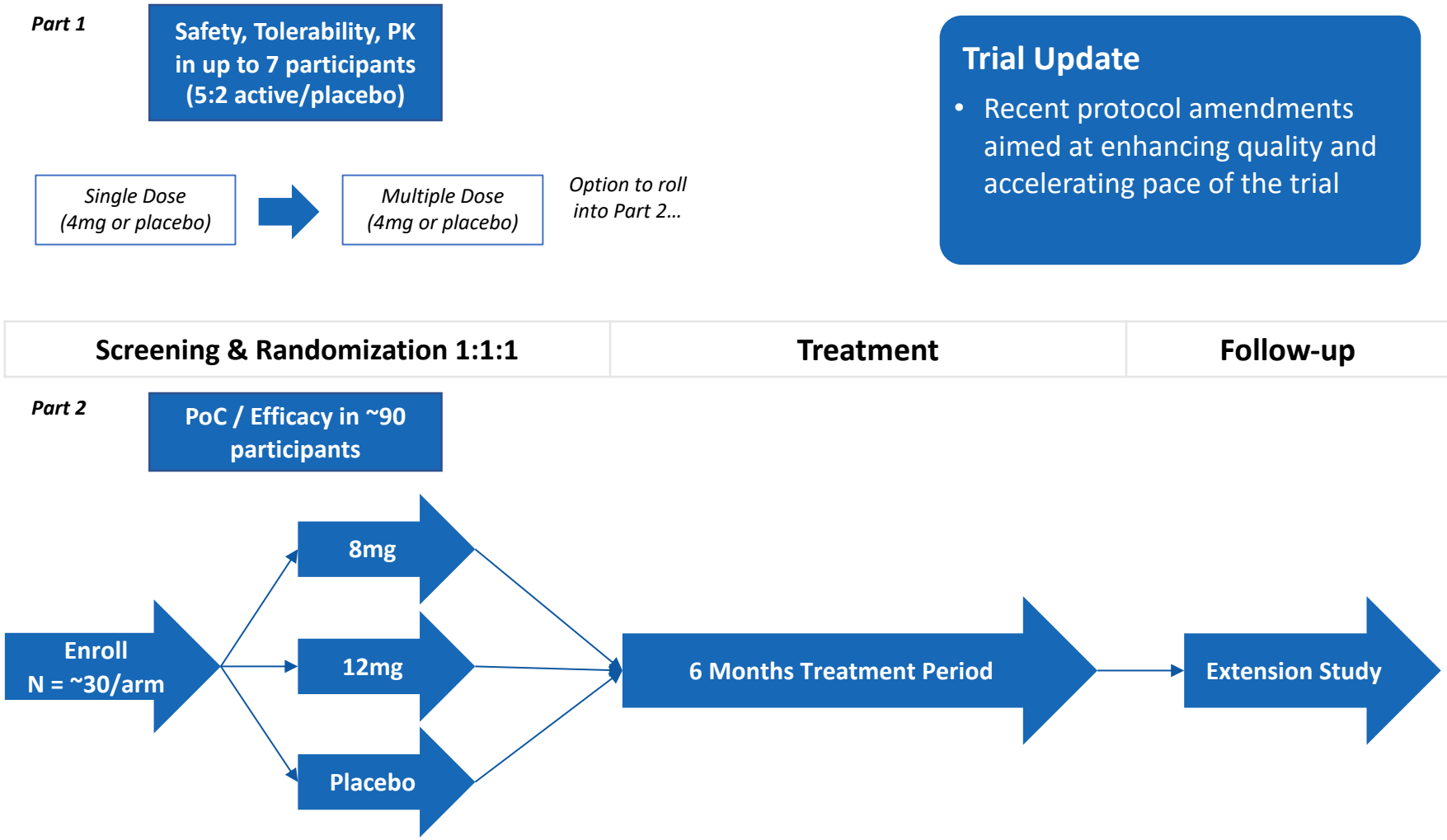
Phase 2 trial initiated in Q3 2022

Enrollment Criteria

- Confirmed *APC* mutation
- Post-colectomy/proctocolectomy
- No GI cancer present
- Polyps in either duodenum (including ampulla of vater) or rectum/pouch

Outcome Measures

- Primary:
  - Part 1: PK
  - Part 2: % change from baseline in polyp burden
- Secondary:
  - Part 1: Safety & tolerability
  - Part 2: PK; PD; change from baseline in polyp number, histological grade, disease scoring
- Exploratory:
  - Part 1: PD
  - Part 2: Time to first occurrence of FAP-related event; change from baseline in extent of desmoid disease



Trial Update

- Recent protocol amendments aimed at enhancing quality and accelerating pace of the trial

https://clinicaltrials.gov/ct2/show/NCT05552755

REC-4881 for the Treatment of Solid Tumors with AXIN1 or APC Mutant Cancers

Target / MOA	MEK Inhibitor
Molecule Type	Small Molecule
Lead Indication(s)	Solid Tumors with AXIN1 or APC Mutant Cancers
Status	Phase 2
Source of Insight	Recursion OS

Clinical: AXIN1 or APC

Disease Overview : *AXIN1* or *APC* Mutant Cancers

Gross morphology of HCC tumor

- **Sustained Wnt signaling** is a frequent driver event found across a wide variety of solid tumors
- Dysregulation of β-catenin destruction complex due to inactivating mutations in *AXIN1* or *APC* **leads to sustained Wnt signaling promoting** cancer progression and survival[1]
- *AXIN1* or *APC* **mutant solid tumors** are considered clinically aggressive and resistant to standard treatments

"Nothing in HCC has immediate therapeutic relevance and the most common mutations are TERT, TP53, and Wnt (CTNNB1/AXIN1/APC) and combined these alterations define almost 80% of patients and are not targetable"

- KOL, Clinical Investigator, Texas

[1] *Bugter, J.M., et al. Nat Rev Cancer, 2021, 21, pp.5-21*

Clinical: AXIN1 or APC

Disease Overview : *AXIN1* or *APC* Mutant Cancers

Tumor Type	*AXIN1* Mutation Frequency[1]	*APC* Mutation Frequency[1]	Treatable Population[2] (US+EU5)
CRC	3%	70%	27,450
LUAD	4%	11%	14,000
Prostate	2%	11%	6,700
Bladder	3%	8%	5,100
HCC	12%	5%	3,100
Endometrial	8%	12%	2,600
Esophageal	2%	7%	2,600
PDAC	1%	2%	1,500
Ovarian	1%	3%	1,400
TNBC	1%	2%	300
			~65,000

Flexible Patient Selection Strategy and Study Design

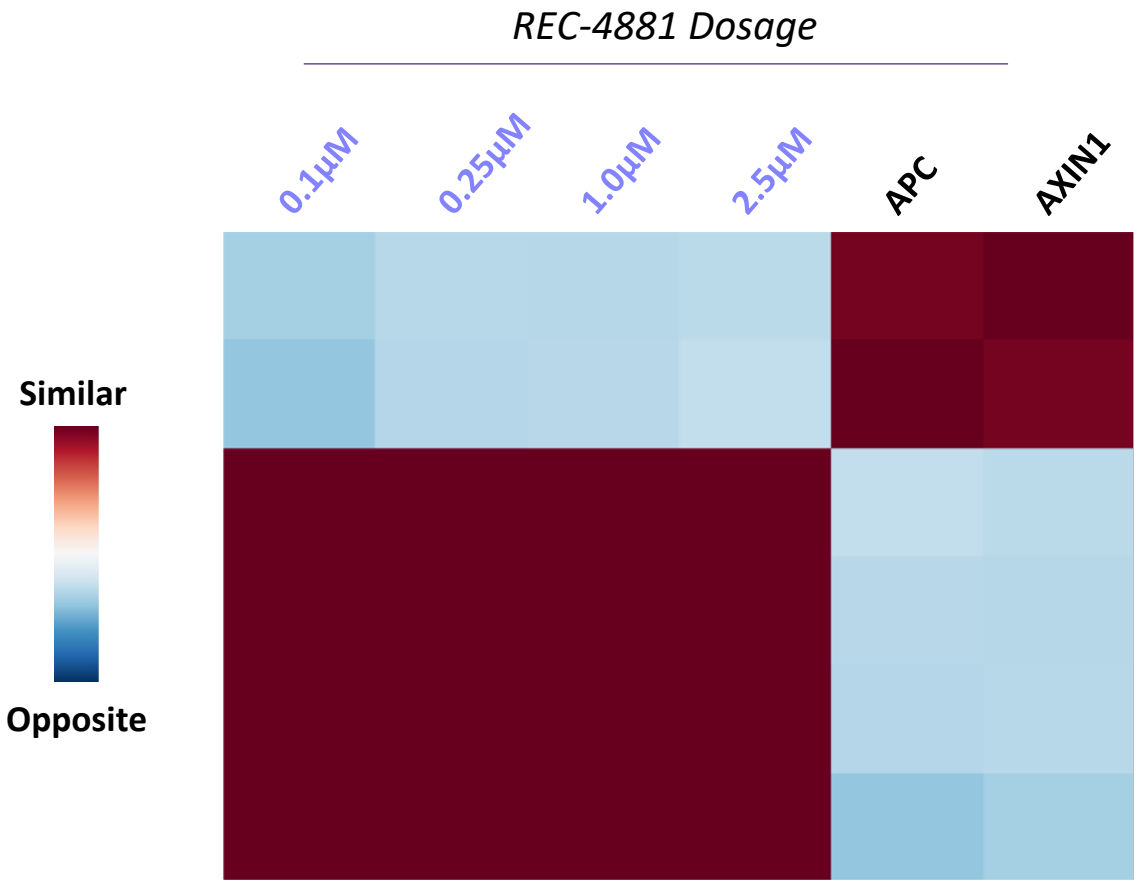
- *AXIN1* and *APC* genes covered by commercially available NGS panels and liquid biopsy detection assays
- FDA guidance supports utility of ctDNA as patient selection for the detection of alterations for eligibility criteria and as a stratification factor for trials enrolling marker-positive and marker-negative populations[3]
- Multiple tumor types will inform study design and patient selection

Preclinical data with REC-4881 at clinically relevant exposures in HCC and Ovarian PDX mouse models gives confidence to pursue other mutant cancer types

[1] Obtained from cbioportal.org. [2] Represents 2L treatable population estimates; obtained from DRG. [3] https://www.fda.gov/media/158072/download

Clinical: AXIN1 or APC

Insight from OS : Novel Insight around Established MoA



Heat map from Recursion OS

Hypothesis: Rescue of *AXIN1* may impact tumor progression and/or restore checkpoint sensitivity in cancers driven by *AXIN1* loss

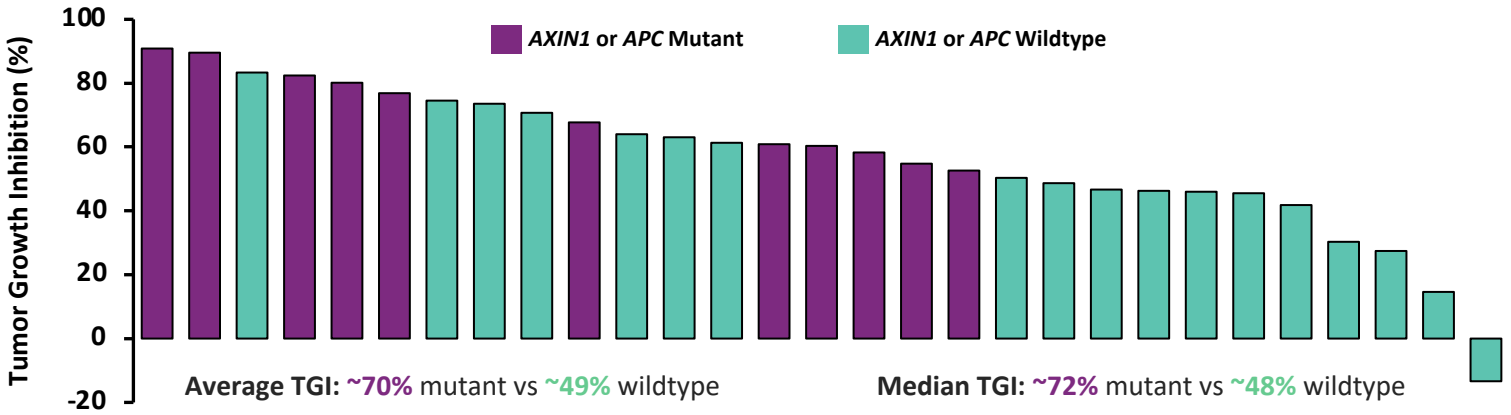
Recursion Differentiation: REC-4881 rescues tumor suppressor genes *APC* and *AXIN1*

- *APC* and *AXIN1* are negative regulators of Wnt signaling
- Both proteins form part of the B-catenin destruction complex. Strong clustering suggests map recapitulation of this biology

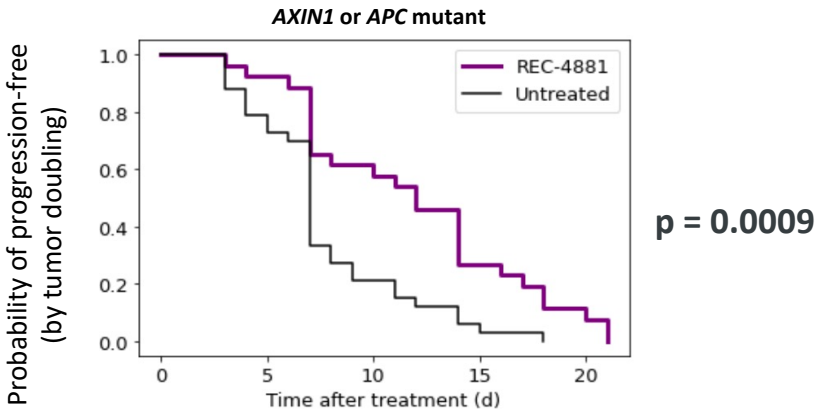
Clinical: AXIN1 or APC

Further Confidence : Preclinical Studies Confirming Insight

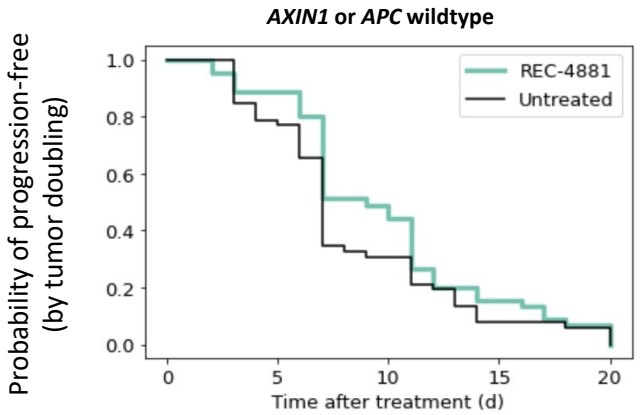
Efficacy found in In Vivo Mice Models …



… Led to Significant Progression Free Survival



p = 0.0009



p = 0.23

Next Steps

- ❑ Finalize design of a Phase 2 biomarker-enriched trial
- ❑ Initiate Phase 2 trial in select tumor types in early 2024
- ❑ Identify suitable partners for genetic testing capabilities
- ❑ Evaluate REC-4881 in combination with targeted and/or immune modulating agents

Note: REC-4881 dosed at 3 mg/kg QD for up to 21 days. 3 mice per treatment per model (3 x 3 x 3) design

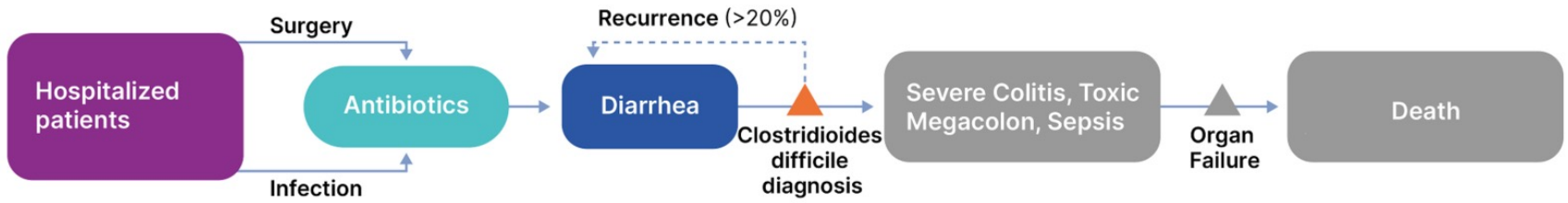
REC-3964 for the Treatment of C. Difficile Infection

Target / MOA	Selective C. diff Toxin Inhibitor
Molecule Type	Small Molecule
Lead Indication(s)	C. Difficile Infection
Status	Phase 1
Source of Insight	Recursion OS

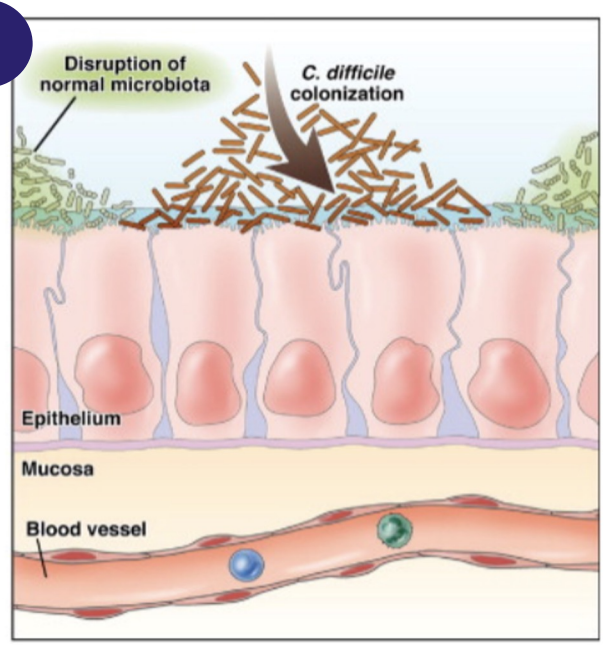
Clinical: C. Difficile

Disease Overview : C. Difficile Infection (CDI)

C.diff is the leading cause of antibiotic-associated diarrhea

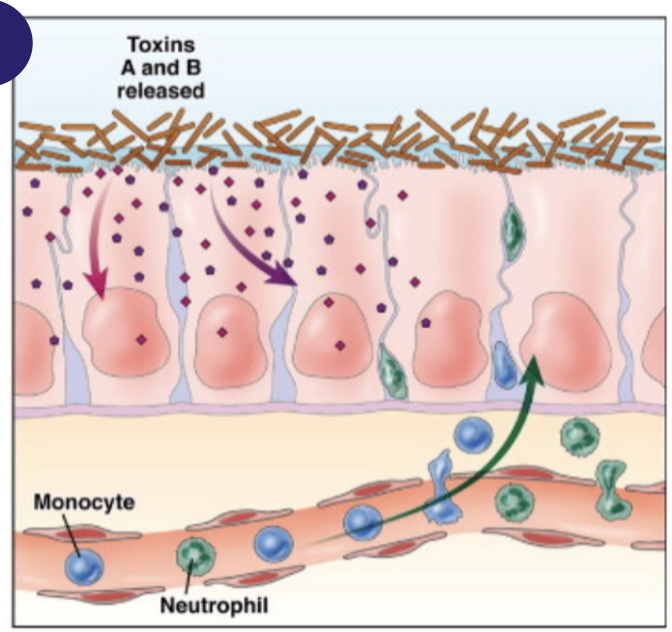


1



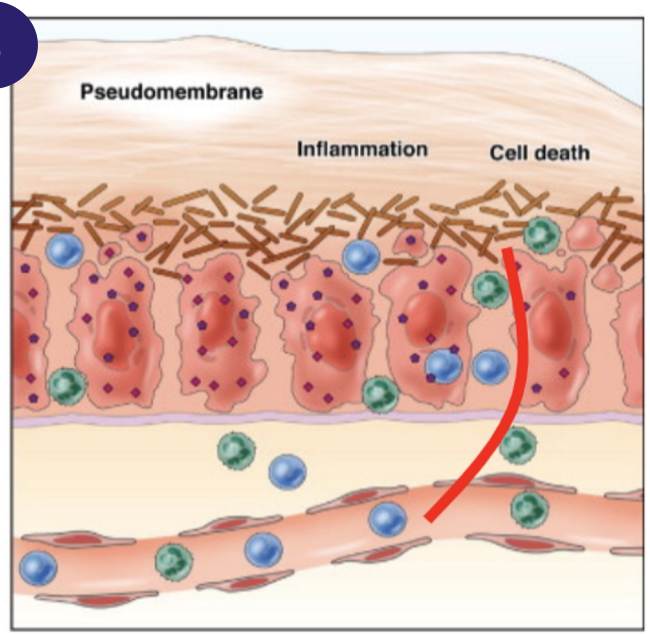
Disruption of microbiota and colonization of *C. diff*

2



Release of C. diff toxins

3



Degradation of colon cell junction & toxin transit to bloodstream

Source: McCollum, D,, Rodriguez, JM . Detection, Treatment, and Prevention of Clostridium difficile Infection. Clinical Gastroenterology and Hepatology 2012 Mar 19. https://doi.org/10.1016/j.cgh.2012.03.008

Clinical: C. Difficile

Disease Overview : C. Difficile Infection (CDI)

Colleen – lived with rCDI

Patient Population – Large, Diagnosable and Easy to Identify

- Symptoms caused by clostridioides difficile tissue-damaging toxins released in the colon
- Patients who experience >3 unformed stools are diagnosed via NAAT* for toxin gene or positive stool test for toxins
- Patients who are at highest risk are those on antibiotics, and frequently visit hospitals or are living in a nursing home
- More than **80% of cases** occur among patients **age 65** or older

Large, Unmet Need with Significant Cost Burden

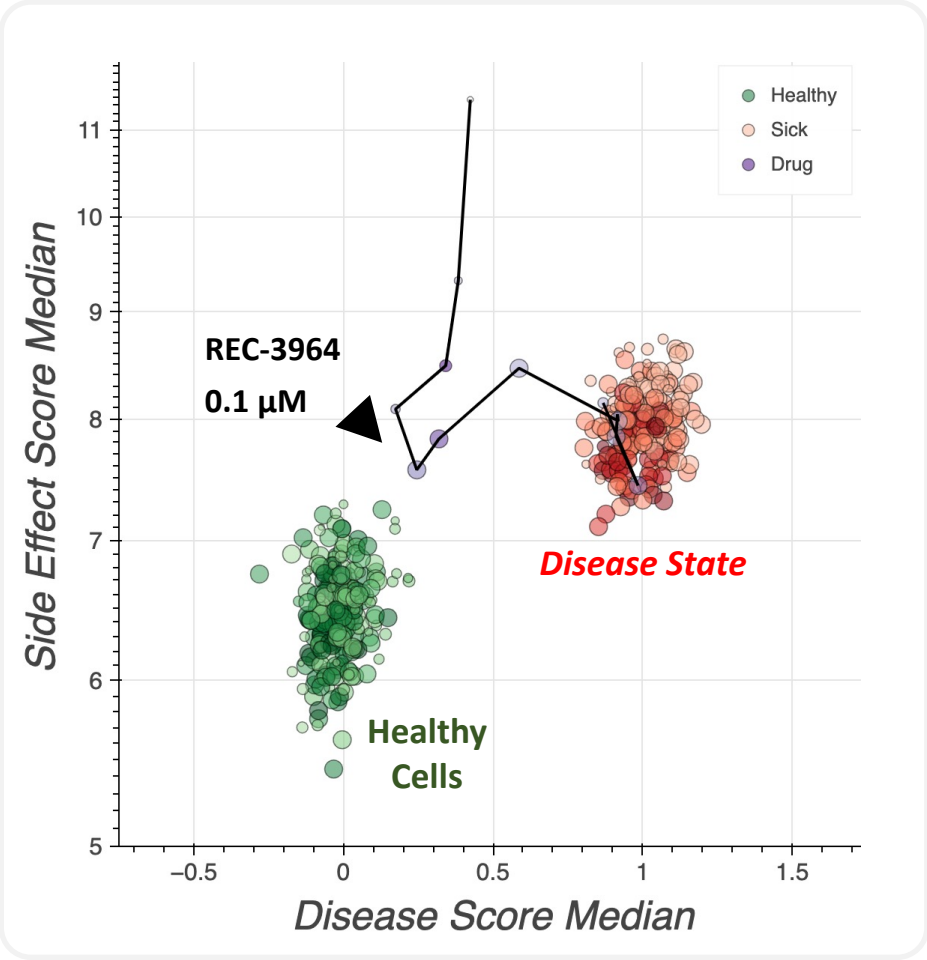
- RCDI** occurs in **20-30% of patients treated with standard of care**
  - 40% of those patients will continue to recur with 2+ episodes
- **>29,000 patients** die in the US each year from CDI
- Cost burden of up to **$4.8bn annually**

~730,000 **Diagnosed US + EU5 patients**

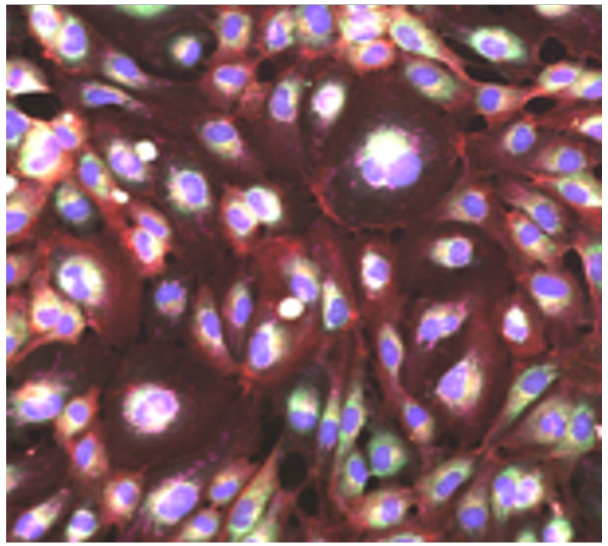
*Source, CDC *NAAT = Nucleic Acid Amplification Test; **rCDI = recurrent CDI*

Clinical: C. Difficile

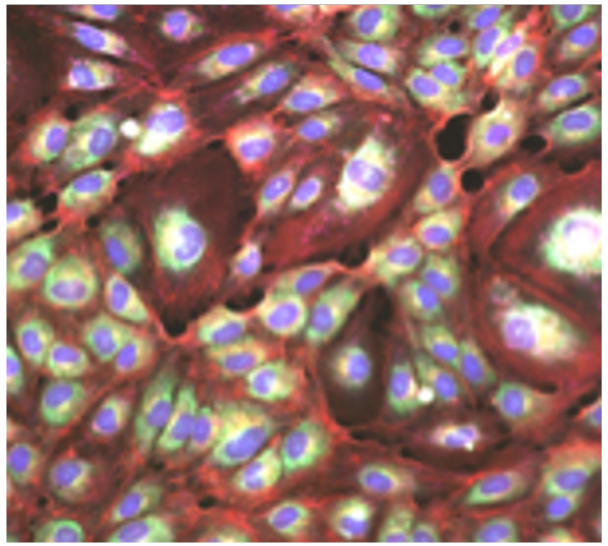
Insight from OS : REC-3964 Rescued Cells Treated with C. Difficile Toxins



REC-3964 identified as a NCE that demonstrated strong rescue in HUVEC cells treated with C. diff toxin



C. diff toxin B phenotype

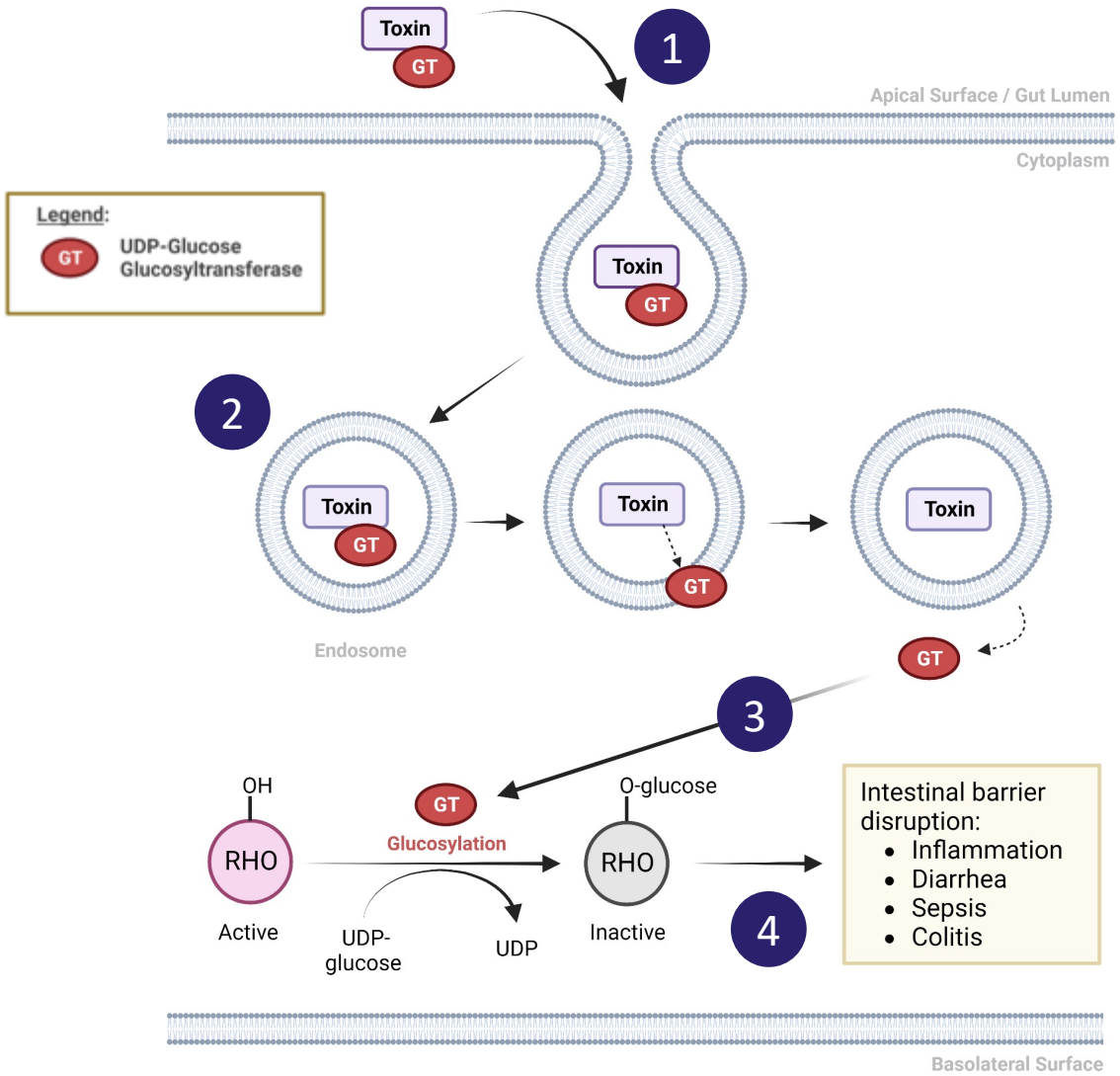


Healthy Control

Clinical: C. Difficile

REC-3964 : Selective Inhibitor of C. Difficile Toxins

REC-3964 is Recursion's 1st Small Molecule NCE to Reach the Clinic



1. C.diff toxins bind to cell surface receptors and trigger endocytic event
2. Autocatalytic cleavage event releases C.diff toxin's glucoyltransferase enzymatic domain into the cytosol of the infected cell
3. The glucosyltransferase locks Rho family GTPases in the inactive state
4. Inactivation of Rho GTPases alters cytoskeletal dynamics, induces apoptosis, and impairs barrier function which drives the pathological effects of C.diff infection

Adapted from Awad et al. 2014

Clinical: C. Difficile

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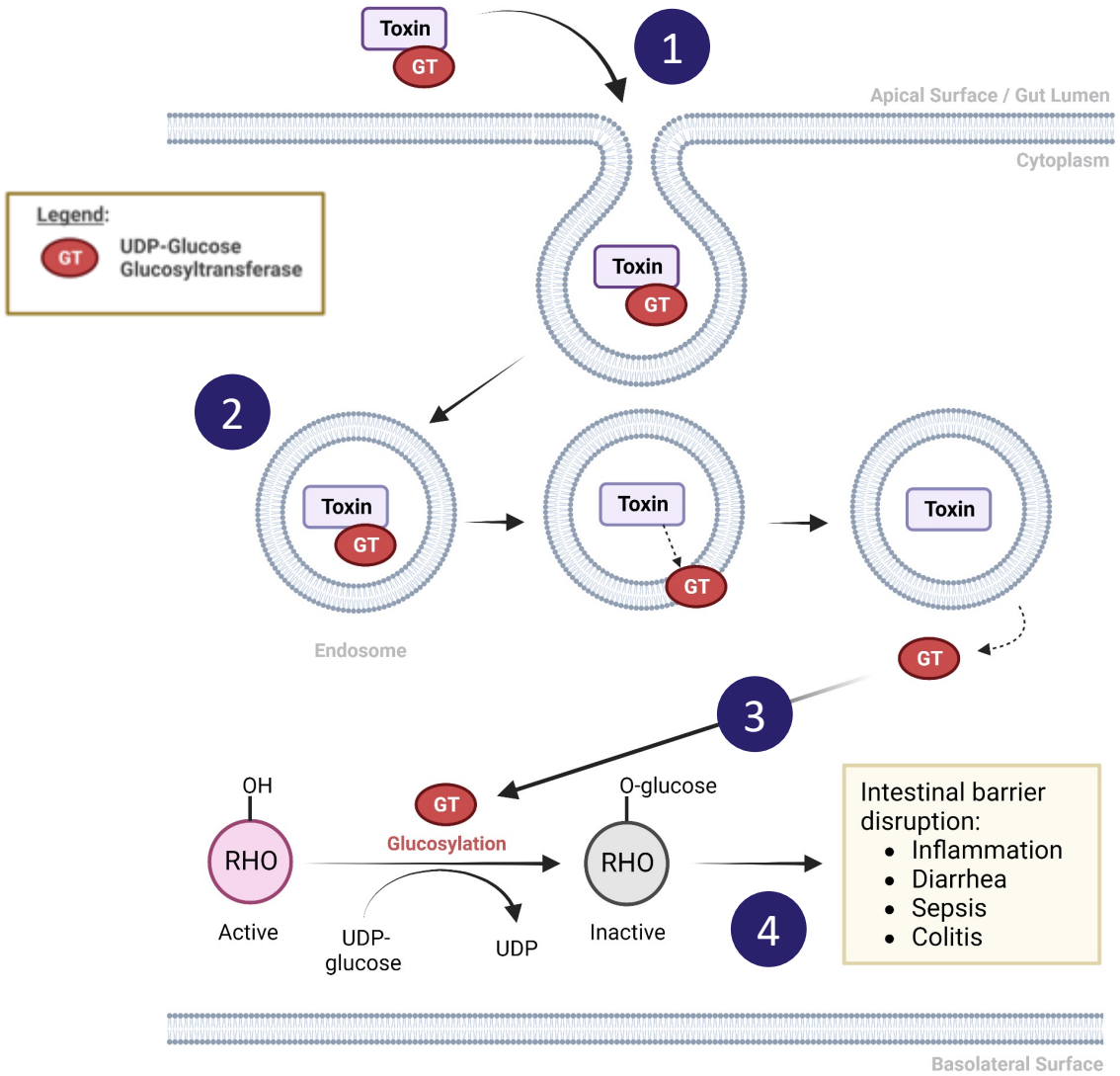
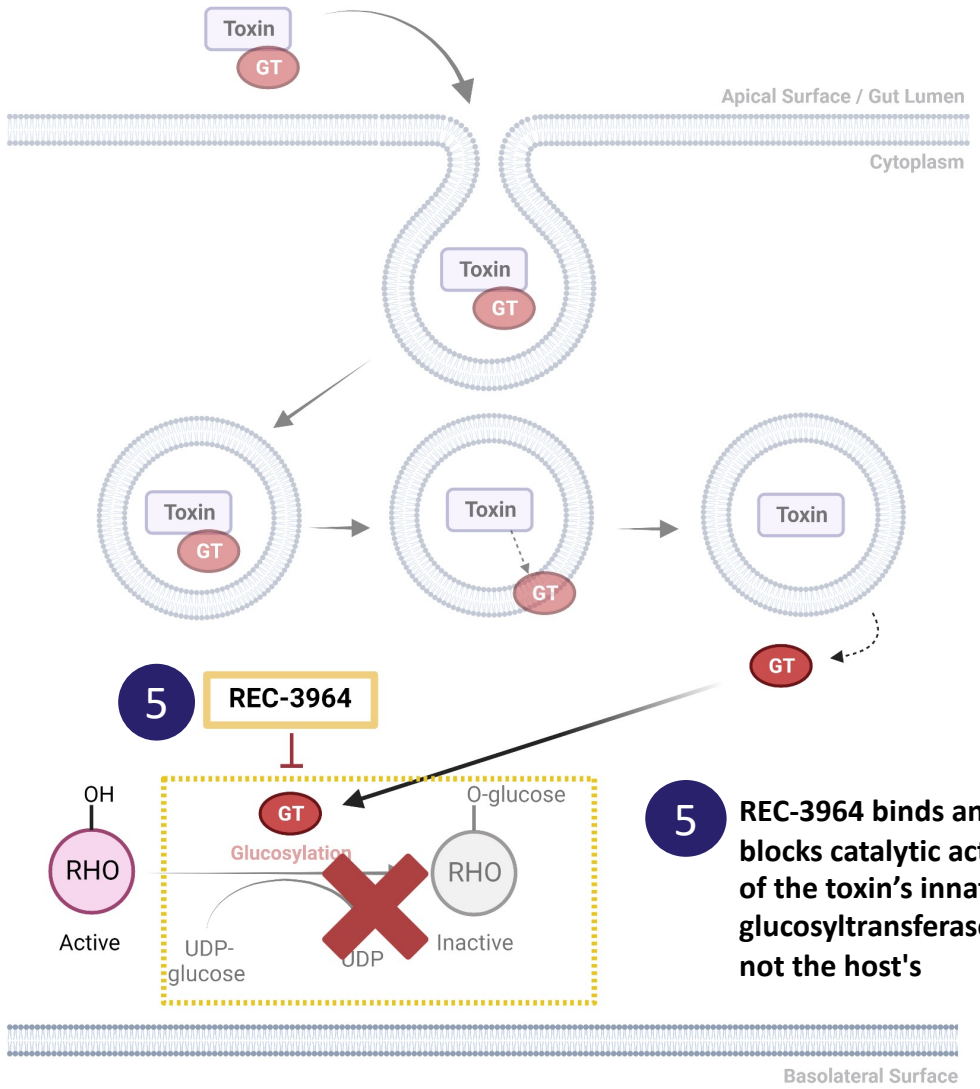




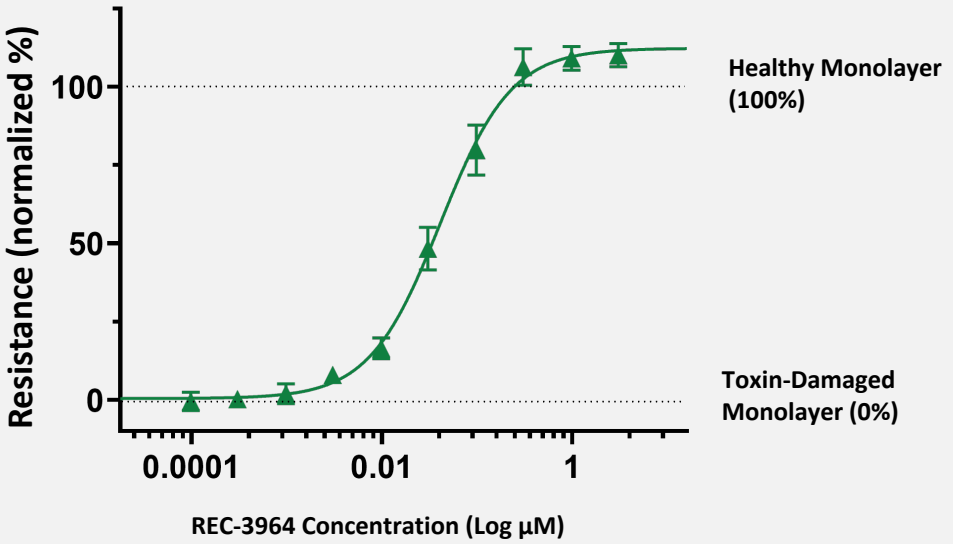
5 **REC-3964 binds and blocks catalytic activity of the toxin's innate glucosyltransferase, but not the host's**

Adapted from Awad, MM. et al. (2014). Clostridium difficile virulence factors: Insights into an anaerobic spore-forming pathogen. Gut Microbes. 5(5), 579-593.

Clinical: C. Difficile

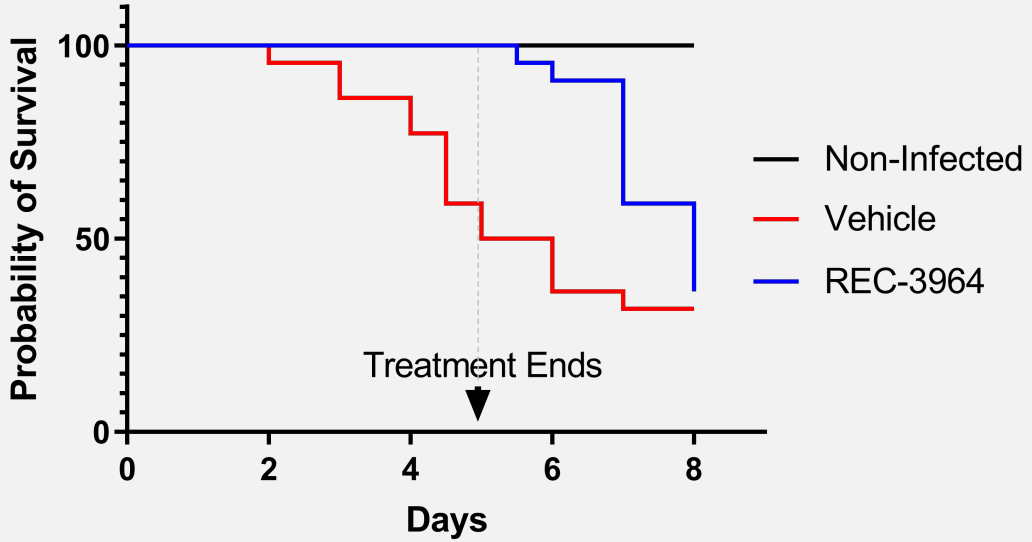
Further Confidence : Preclinical Studies Confirmed Recursion OS Insight

REC-3964 rescues barrier integrity with increasing concentrations



✓ REC-3964 restores gut epithelial barrier integrity, which when disrupted causes inflammation and diarrhea

REC-3964 improved probability of survival in a hamster model of C. difficile infection



✓ Improved probability of survival beyond treatment completion

Clinical: C. Difficile

Clinical Trial : REC-3964 for C. difficile Phase 1 Study Underway

Phase 1 FIH SAD/MAD Trial initiated in Q3 2022

Trial Design

- Randomized, Double-blind Trial

Population

- Healthy Subjects
- SAD (n = 56)
- MAD (n = 50)

Primary Objectives

✓ Assess the safety & tolerability of SAD and MAD of REC-3964

✓ Evaluate the PK profile of REC-3964 after single and multiple doses

Trial Update

- Enrollment is progressing
- In several SAD cohorts and at least one MAD cohort, REC-3964 has been extremely safe and well tolerated
- **Complete safety and PK data readout expected 2H 2023**

Preclinical Programs

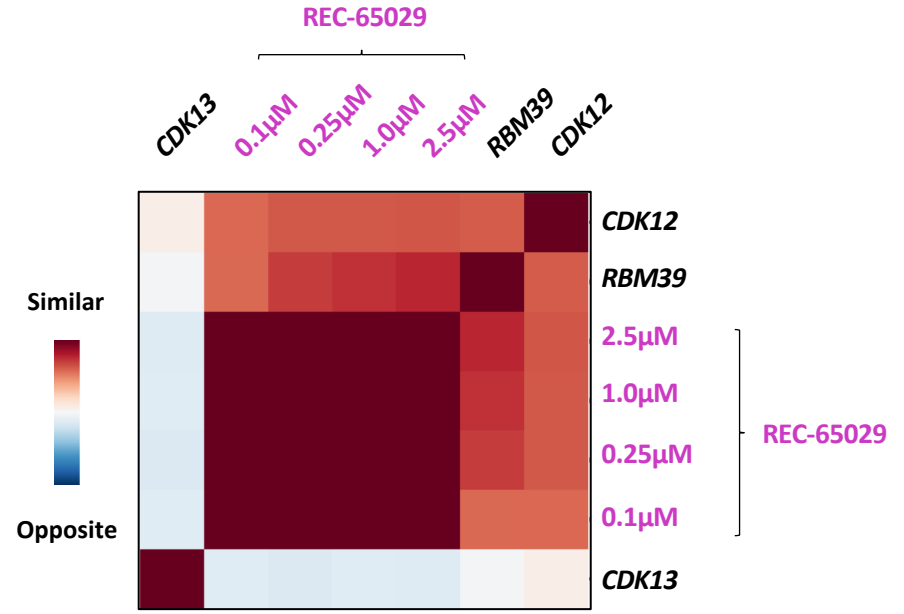
RBM39 : HR-Proficient Ovarian Cancer

Target α : Immunotherapy

Recursion

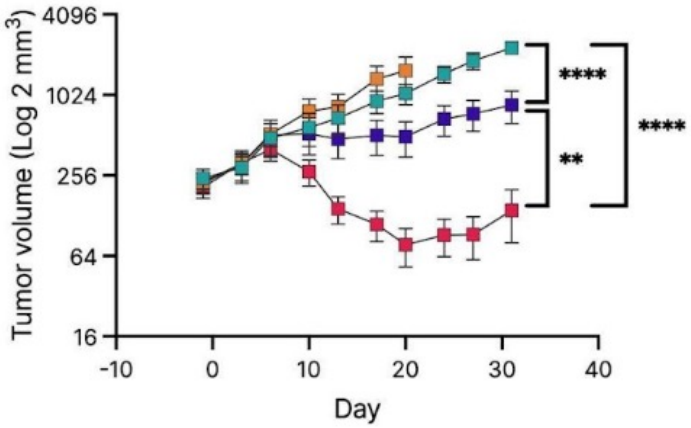
RBM39: Novel CDK12-Adjacent Target for Potentially Treating HR-Proficient Ovarian Cancer

GOAL	Identify potential first-in-class tumor-targeted precision therapeutic NCE with novel MOA capable of potentially treating HR-proficient ovarian cancer
INSIGHT FROM OS	Inhibition of target RBM39 (previously referred to as Target γ) may mimic the inhibition of CDK12 while mitigating toxicity related to CDK13 inhibition
FURTHER CONFIDENCE	A Recursion-generated NCE showed single agent efficacy that is enhanced in combination with Niraparib in a BRCA-proficient PDX model
NEXT STEPS	Program entering IND-enabling studies

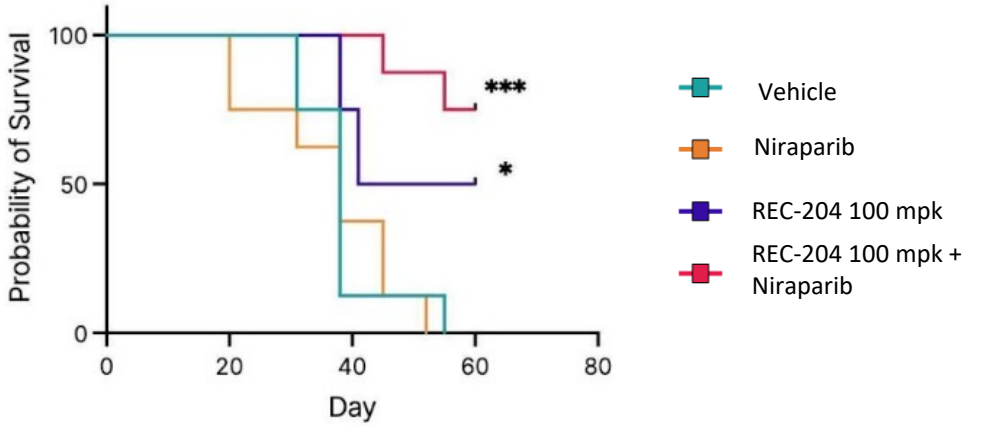


BRCA-proficient ovarian cancer PDX

OV0273 (PDX) in-vivo efficacy



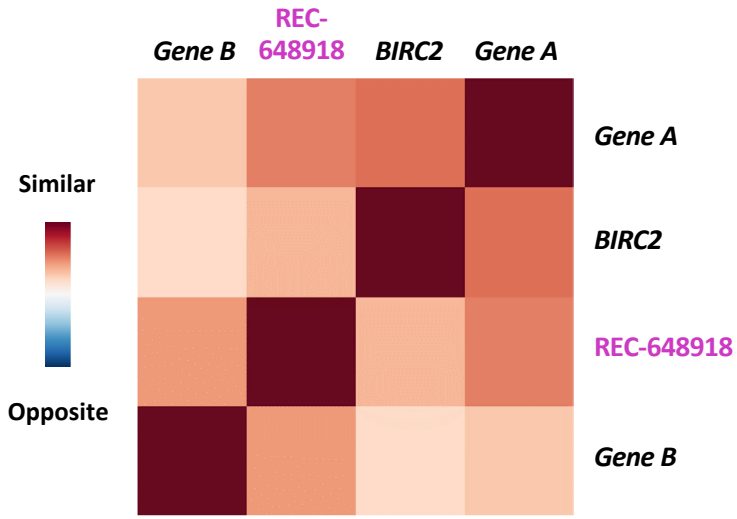
Survival data



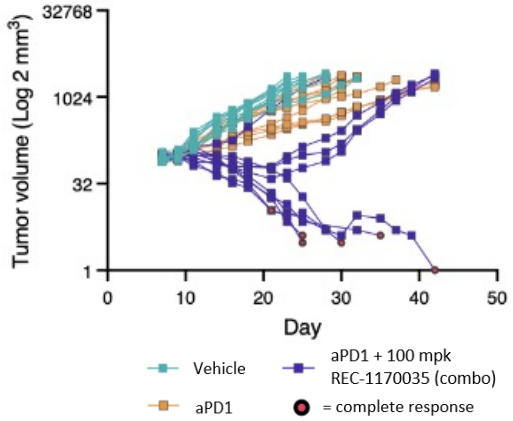
*Note: in the OV0273 PDX model, mice were treated with a representative lead molecule REC-1170204 (100 mg/kg, BID, PO) ± Niraparib (40 mg/kg, QD, PO) for 32 days. Single agent REC-1170204 or in combination with Niraparib resulted in a statistically significant response vs either Niraparib or vehicle arms. In addition, there was a statistically significant improvement in survival > 30 days post final dose. *p<0.05, ** p<0.01, **** p<0.0001*

Target α: Potential First-in-Class NCE with Novel MOA to Enhance Anti-PD-(L)1 Response

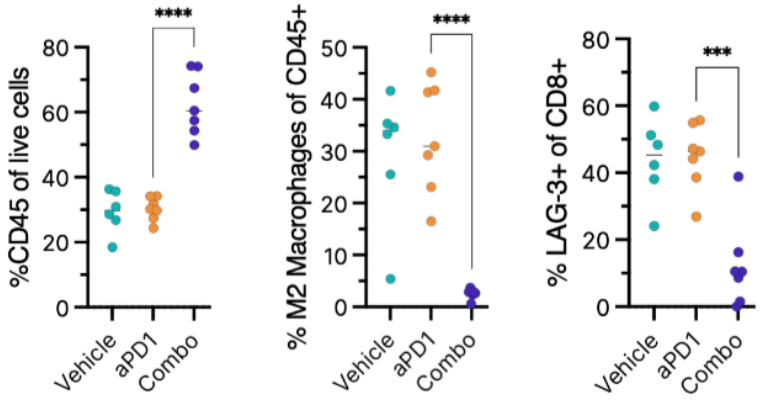
GOAL	Identify novel compounds capable of enhancing the therapeutic benefit of checkpoint therapy without concomitant inflammatory side effects
INSIGHT FROM OS	Novel compound identified with similarity to knockout of potential immunotherapy resistance gene targets (Gene A, Gene B)
FURTHER CONFIDENCE	A Recursion-generated NCE showed reduction in tumor growth vs. anti-PD-1 alone in CT26 checkpoint resistance model - including 60% complete responses
NEXT STEPS	Program anticipates reaching IND-enabling studies in 2023



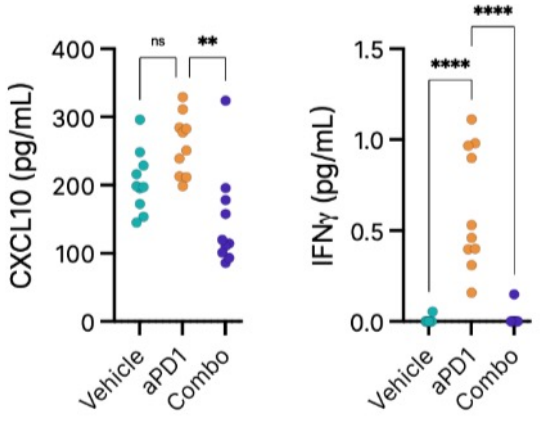
(A) CT26 in vivo efficacy



(B) Tumor Microenvironment Modulation

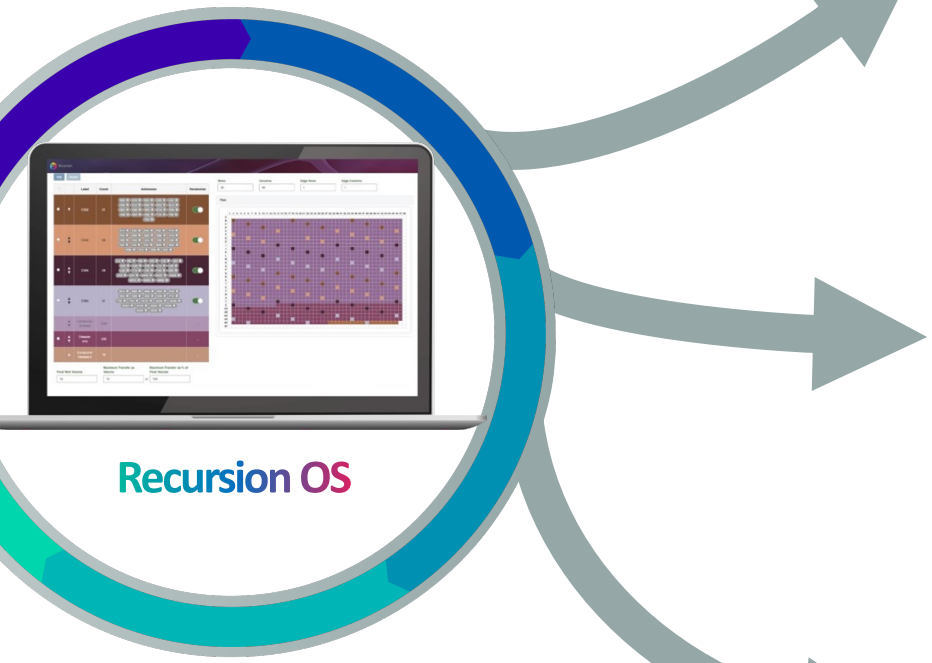


(C) Suppressed Peripheral Inflammation



*Note: (A) Mice harboring CT26 tumors show 60% complete tumor regressions upon treatment with 100 mpk REC-1170035 in combination with 10 mpk anti-PD-1. (B) Flow cytometric analysis of the CT26 tumor microenvironment following 11 days of dosing. One-way ANOVA and Tukey's post test, ***p<0.001, ****p<0.0001. (C) Blood levels of CXCL10 (left) and IFNγ (right) in CT26 tumor bearing mice following 10 days of dosing. Statistical analysis performed using one-way ANOVA and Tukey's post test against aPD1 alone, **p<0.01, ****p<0.0001*

Harnessing value with a capital efficient business strategy



Pipeline

Pipeline Strategy

Build internal pipeline in indications with potential for **accelerated path** to approval

- Precision Oncology
- Rare Disease

Partnerships

Partnership Strategy

Partner in **complex therapeutic areas** requiring large financial commitment and competitive market dynamics

Leverage partner knowledge and clinical development capabilities

- **Fibrosis**
- **Neuroscience***
- **Other large, intractable areas of biology**

Data

Data Strategy

License subsets of data

Direct generation of new data internally **to maximize pipeline and partnership value-drivers**

- Licensing
- Augment Recursion OS

Includes a single oncology indication from our Roche and Genentech collaboration.

Our existing partnerships represent some of the most significant scientific collaborations in biopharma

(Announced Sep 2020; Expanded Dec 2021)

Fibrosis

- **$30M upfront** and **$50M equity investment**
- Up to or exceeding **$1.2B in milestones** for up to or exceeding **12 programs**
- **Mid single-digit royalties** on net sales
- **Recursion owns all algorithmic improvements**

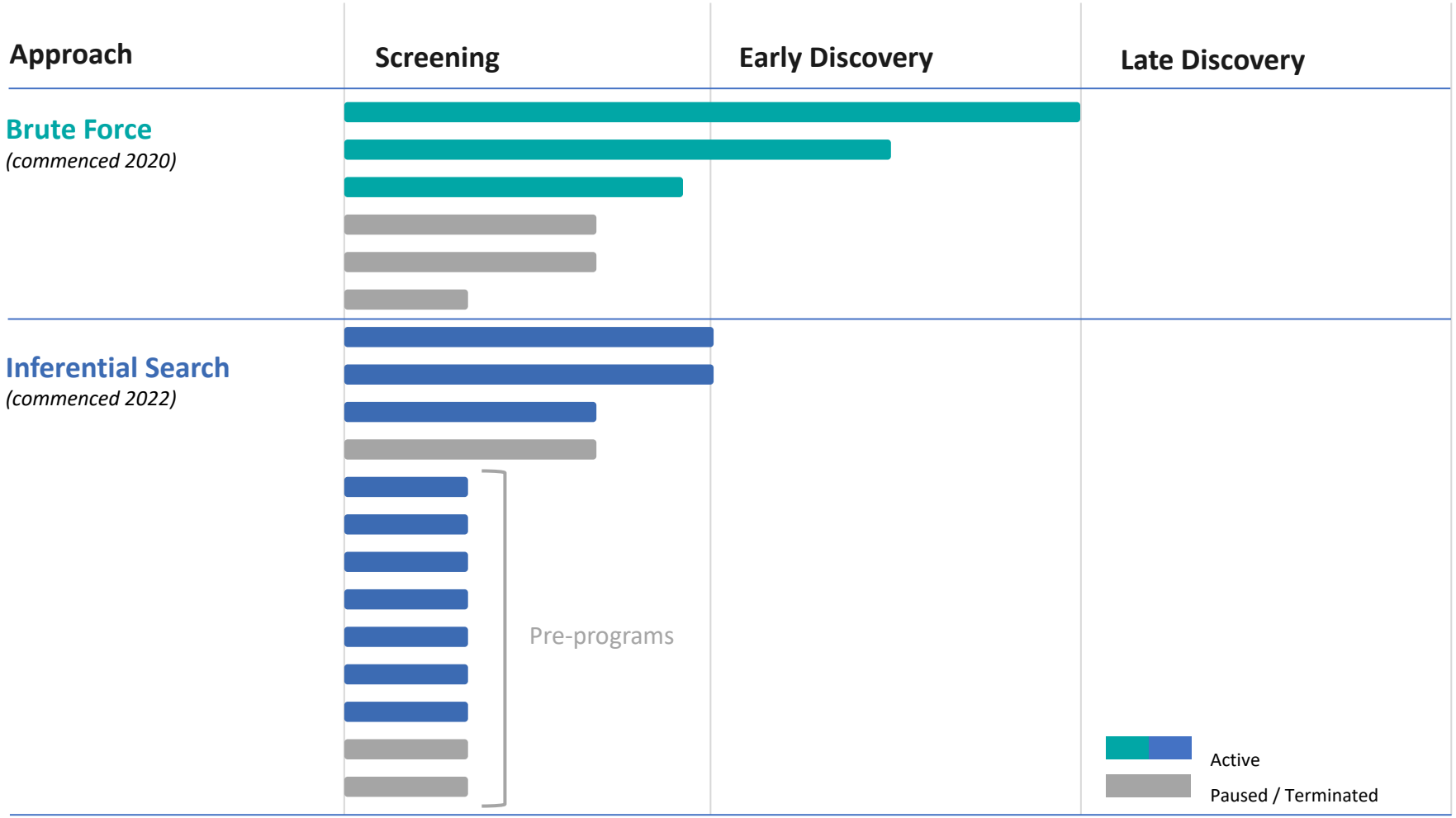
(Announced Dec 2021)

Neuroscience
*and a single oncology indication

- $150M upfront and up to or exceeding $500M in research milestones and data usage options
- Up to or exceeding $300M in possible milestones per program for up to 40 programs
- Mid to high single-digit tiered royalties on net sales
- Recursion owns or co-owns all algorithmic improvements

Multiple programs advancing in parallel to near-term milestones

Transition to Inferential Search has accelerated new program initiation in 2022



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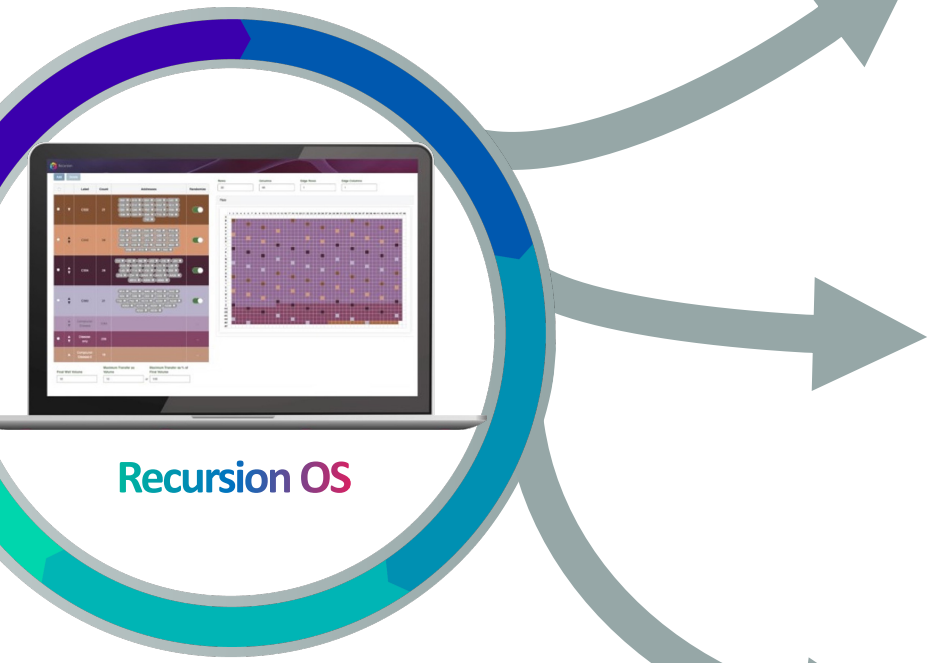
Harnessing value with a capital efficient business strategy



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- **Augment Recursion OS**

*Includes a single oncology indication from our Roche and Genentech collaboration.

Data that is relatable and scalable is the Recursion differentiator

Recursion Data Universe: >23 PB of proprietary biological and chemical data, spanning phenomics, transcriptomics, invivomics, and more

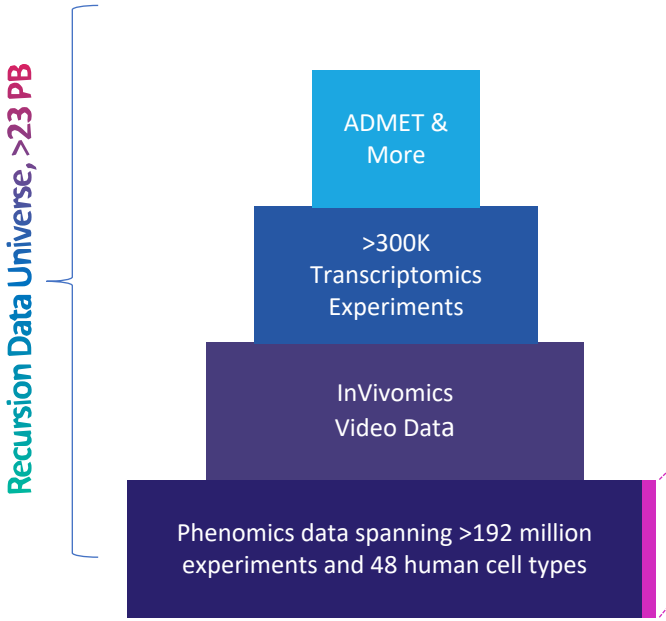
- We believe one of the largest biological and chemical datasets **fit for the purpose of training large-scale ML models**

RXRX3: CRISPR knockouts of most of the human genome, 1,600 FDA approved / commercially available bioactive compounds

- We believe the **largest public dataset of its kind**, <1% of Recursion Data Universe, what Recursion can generate in ~1 week

MolRec™: freemium web-based **application to explore compound and gene relationships** in RXRX3

Start working with RXRX3 and MolRec™: www.rxrx.ai



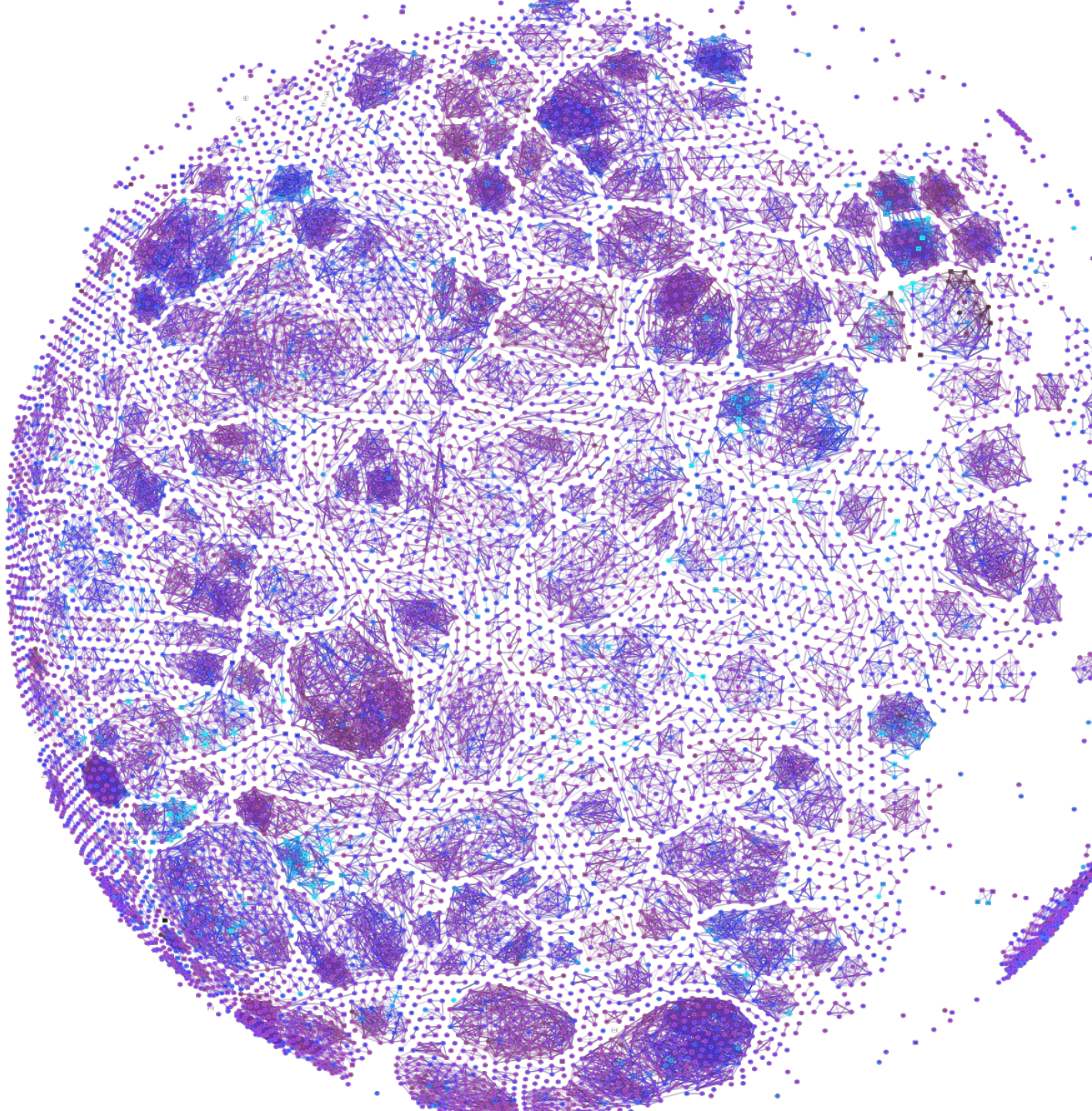
Dataset	Released	Number of Samples
Bio/Chem Phenomic Maps		
RxRx3	**2023**	**2.2M**
JUMPCP	2023	823,438
Autonomous Driving		
Waymo Open Dataset	2018	~105,000
nuScenes	2018	1,000
Image/Object recognition		
ImageNet (21k)	2009	14M
COCO	2014	330,000

~100 TB

~1 - 5 TB

~10 GB - ~1 TB

Value driven by our team and our milestones



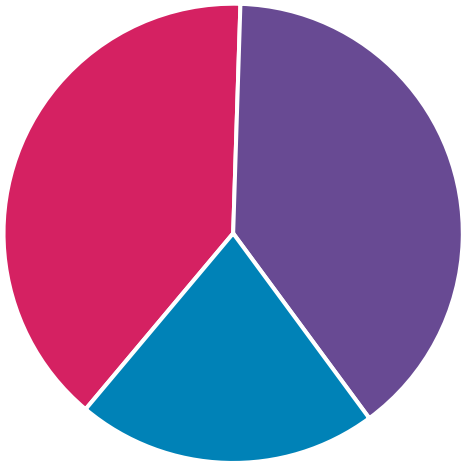
Recursion

What it takes to make this happen – a new kind of team and culture

Team Members

~500 **Employees**

43% **Advanced degrees**



- Life Sciences – biology, chemistry, development, etc.
- Technology – data science, software engineering, automation, etc.
- Strategic Operations

43% Female

54% Male

1% Non-Binary

Parity Pledge Signer
gender parity and people of color parity

ESG Highlights

- ✓ ESG reporting on **Healthcare and Technology Metrics**
- ✓ **100% of electricity** powering our Biohive-1 supercomputer comes from renewable sources
- ✓ Learn more about Recursion's ESG stewardship: www.recursion.com/esg

Community Impact

altitude lab
Founding Partner,
Life Science Accelerator

biohive
Founding Member,
Life Science Collective

Committed to ESG Excellence

Corporate ESG Performance Prime
RATED BY ISS ESG

Rated MORNINGSTAR SUSTAINALYTICS

MSCI ESG RATINGS A
CCC | B | BB | BBB | A | AA | AAA

Data shown reflective of Q1 2023 and Recursion's 2023 ESG report, does not reflect Cyclica and Valence acquisitions

What to watch for at Recursion

Upcoming Potential Milestones

Near-Term

- Potential **option exercises** for partnership **programs**
- Potential **option exercises** for **map building** initiatives or data sharing
- Potential for **additional partnership(s)** in large, intractable areas of **biology and / or technological innovation**
- **Ph1 clinical trial readout** for **C. difficile Infection** program expected **2H 2023**
- Potential for **additional INDs and clinical starts**, including **Ph2 trial initiation** for **AXIN1 or APC** program
- Potential to **accelerate value creation** with the acquisitions of **Cyclica and Valence**

Medium-Term

- Multiple **POC readout(s)** for AI-discovered programs
  - **NF2 interim safety** analysis expected **2024**
  - **CCM** top-line data expected **2H 2024**
- Potential for **additional INDs and clinical starts**
- Potential **option exercises** for partnership **programs**
- Potential **option exercises** for **map building** initiatives or data sharing
- Potential **additional partnership(s)** in large, intractable areas of **biology and / or technological innovation**
- Recursion OS moves towards **autonomous map building and navigation** with digital and micro-synthetic chemistry

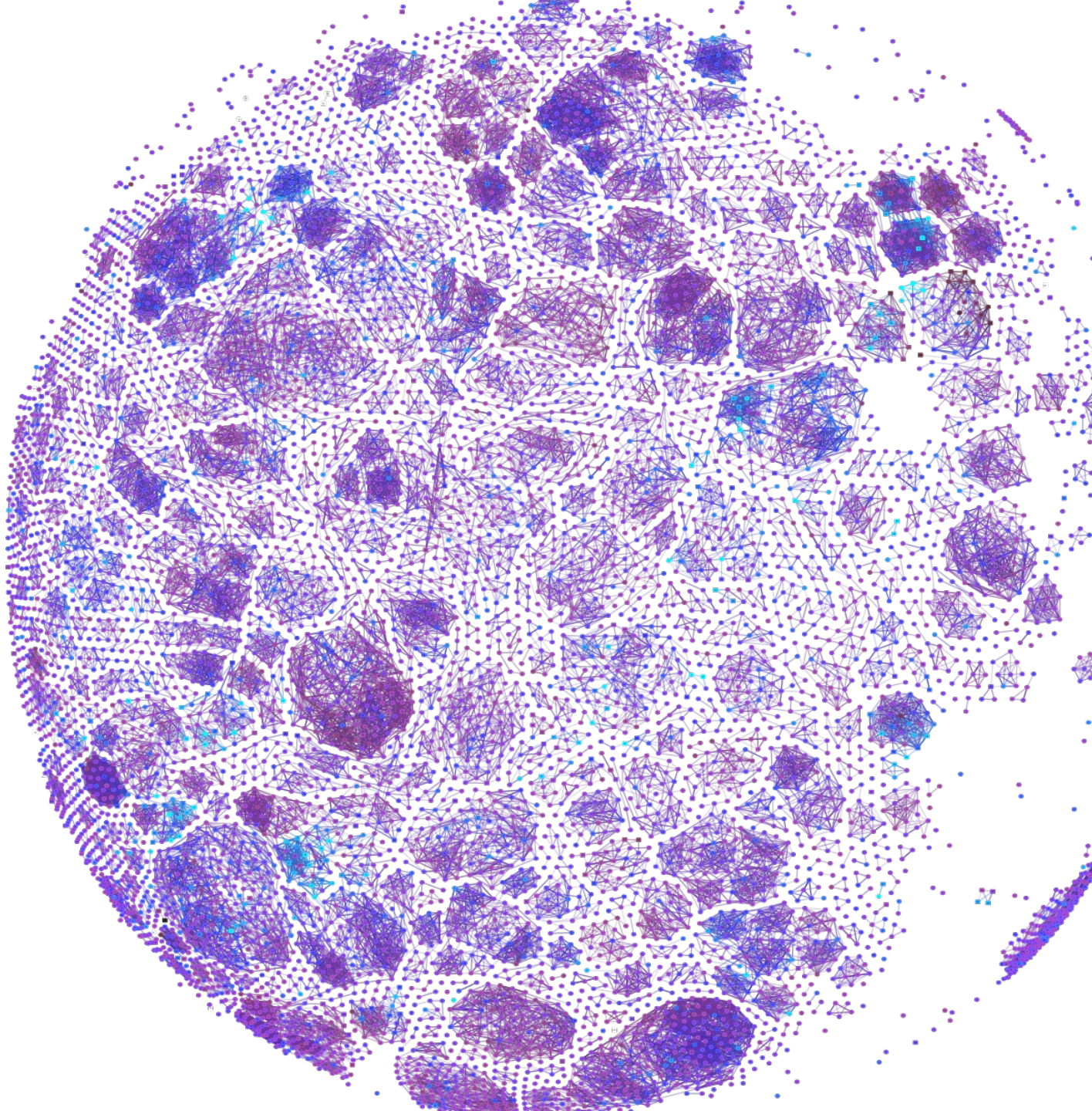
Learn more about Recursion's value proposition: www.recursion.com/download-day

Strong Financials **~$473M in cash** at the end of **Q1 2023**, expect **no material change to runway** as a result of acquisitions

Cash refers to cash and cash equivalents

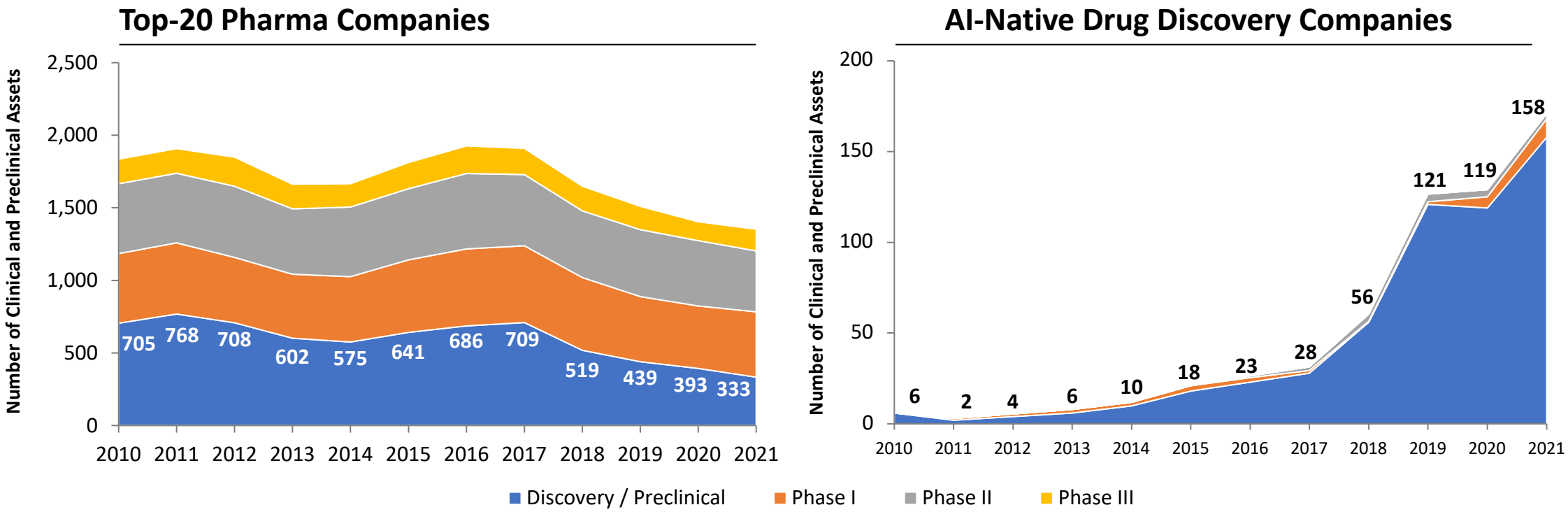

Impact
RECURSION

Additional scientific and business context



Recursion

The biopharmaceutical industry faces pressure amidst declining efficiency in drug discovery

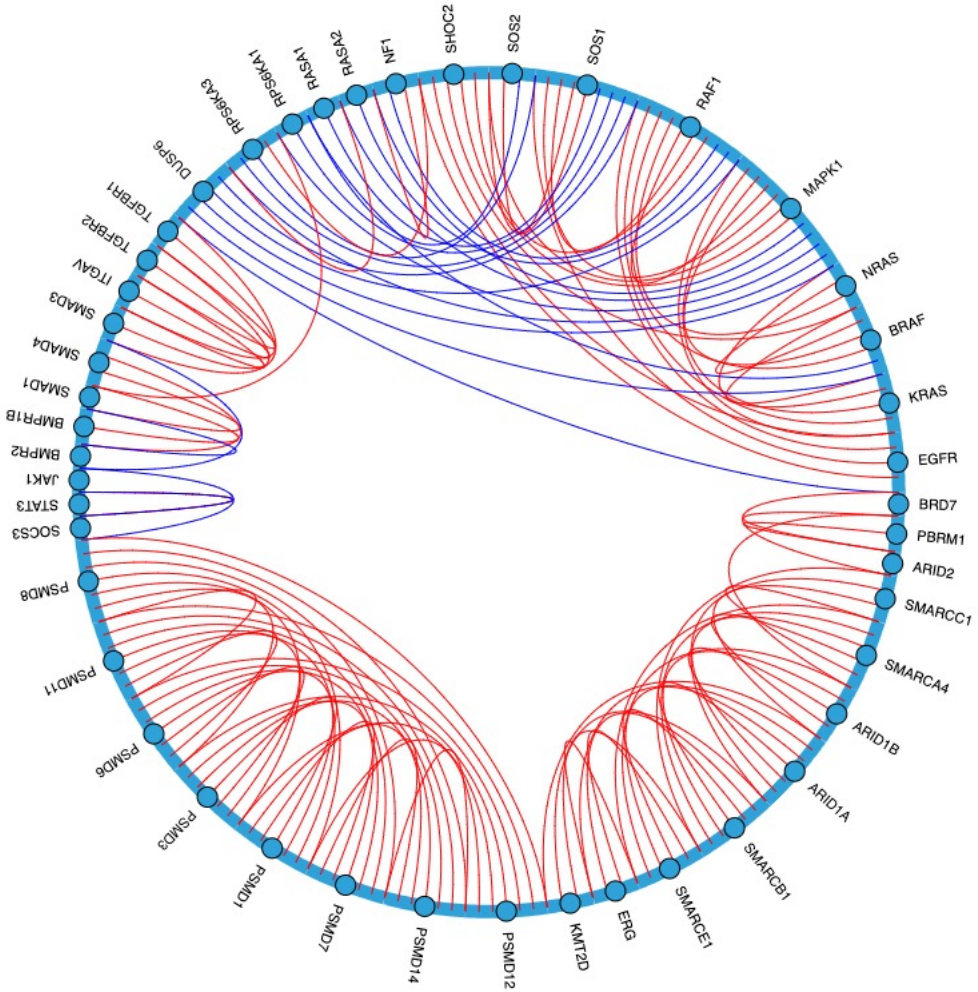


AI-enabled drug discovery efforts have proliferated alongside the declining efficiency of traditional approaches

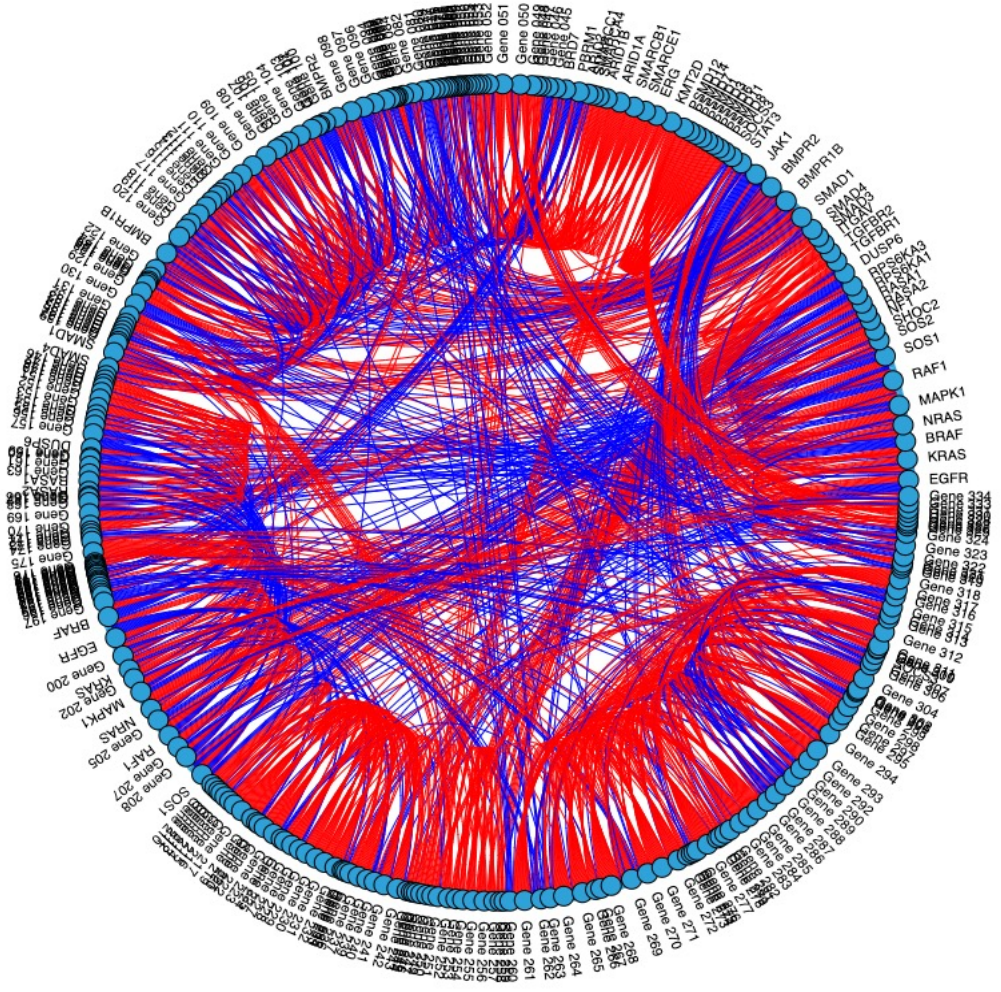
Images adapted from Jayatunga, M., et al. Nature Reviews Drug Discovery 2022.

Historical tools and the limits of human cognition have led to oversimplifying complex biological systems

Traditional Approach to Biology



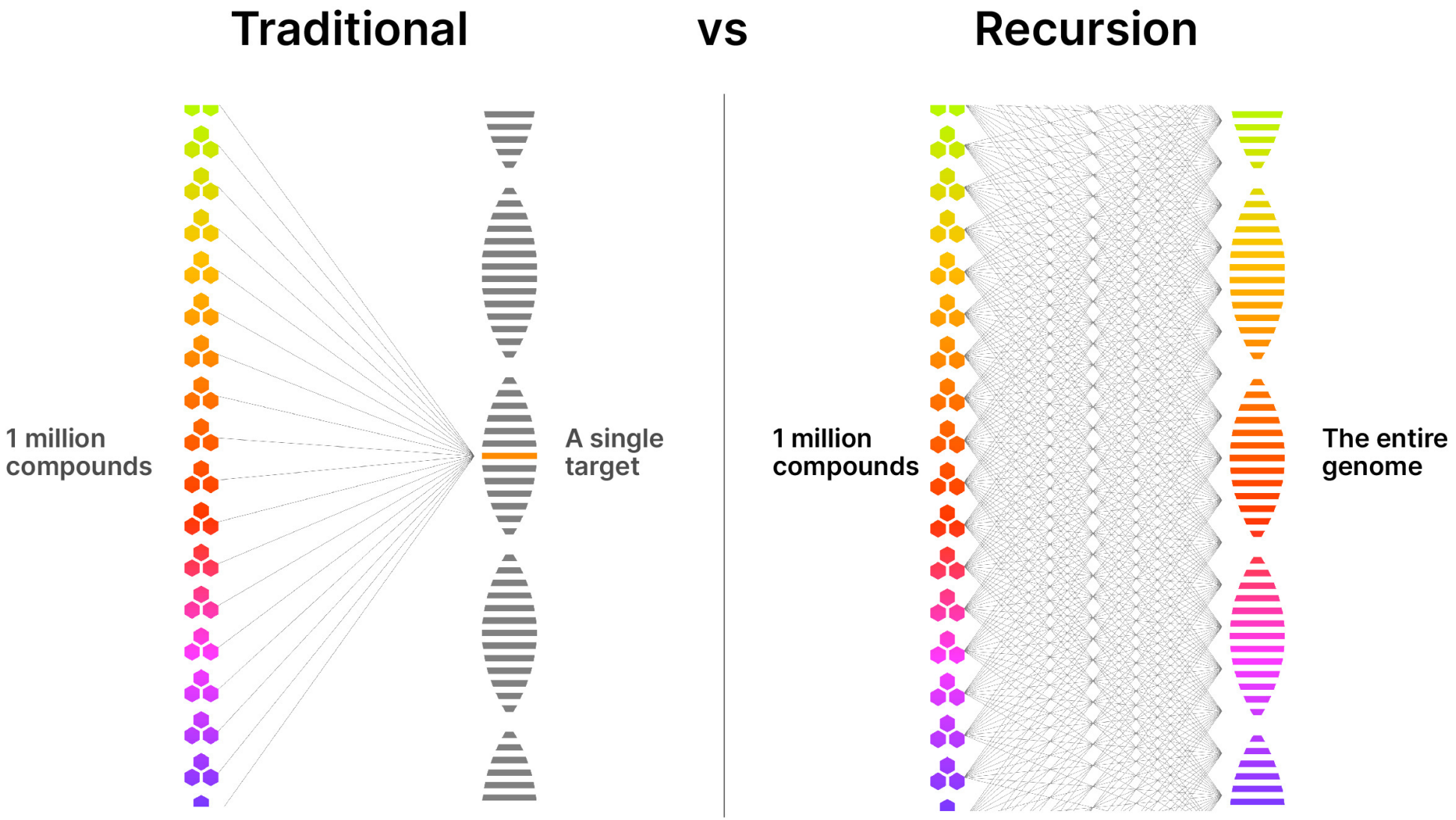
Well-known primary relationships
between key members of five pathways:
JAK/STAT | SWI/SNF | TGFβ | RAS | Proteasome



Recursion's Approach to Biology

All primary relationships found by the Recursion OS
between key members of five pathways:
JAK/STAT | SWI/SNF | TGFβ | RAS | Proteasome

Historical tools and the limits of human cognition have led to oversimplifying complex biological systems



Competitive Benchmarking – Technology Enabled Drug Discovery

	Recursion	AbCellera Biologics	Exscientia	Insitro	Schrodinger
Multiple Large-Scale Partnerships[1]	✓	✓	✓	✓	✓
Significant Internally Developed Pipeline of Early Programs[2]	✓	✓	✓		
Multiple Internally Developed Ph2 or Ph3 Clinical Programs[3]	✓				
Large-Scale Proprietary Biological and Chemical Datasets[4]	✓				

This analysis was performed on a best effort basis leveraging publicly available databases including company websites, press releases, and public filings as of May 1, 2023. (1) Companies with at least two large-scale partnerships with pharmaceutical companies (potential milestones up to or exceeding $1 billion per partnership). (2) Companies providing clear details on at least ten in-house programs from discovery to preclinical. (3) Companies with at least three programs in either Phase 2 or Phase 3. (4) Companies providing clear details on large-scale proprietary biological and chemical datasets built in-house using internal laboratory capabilities (>20 petabytes).

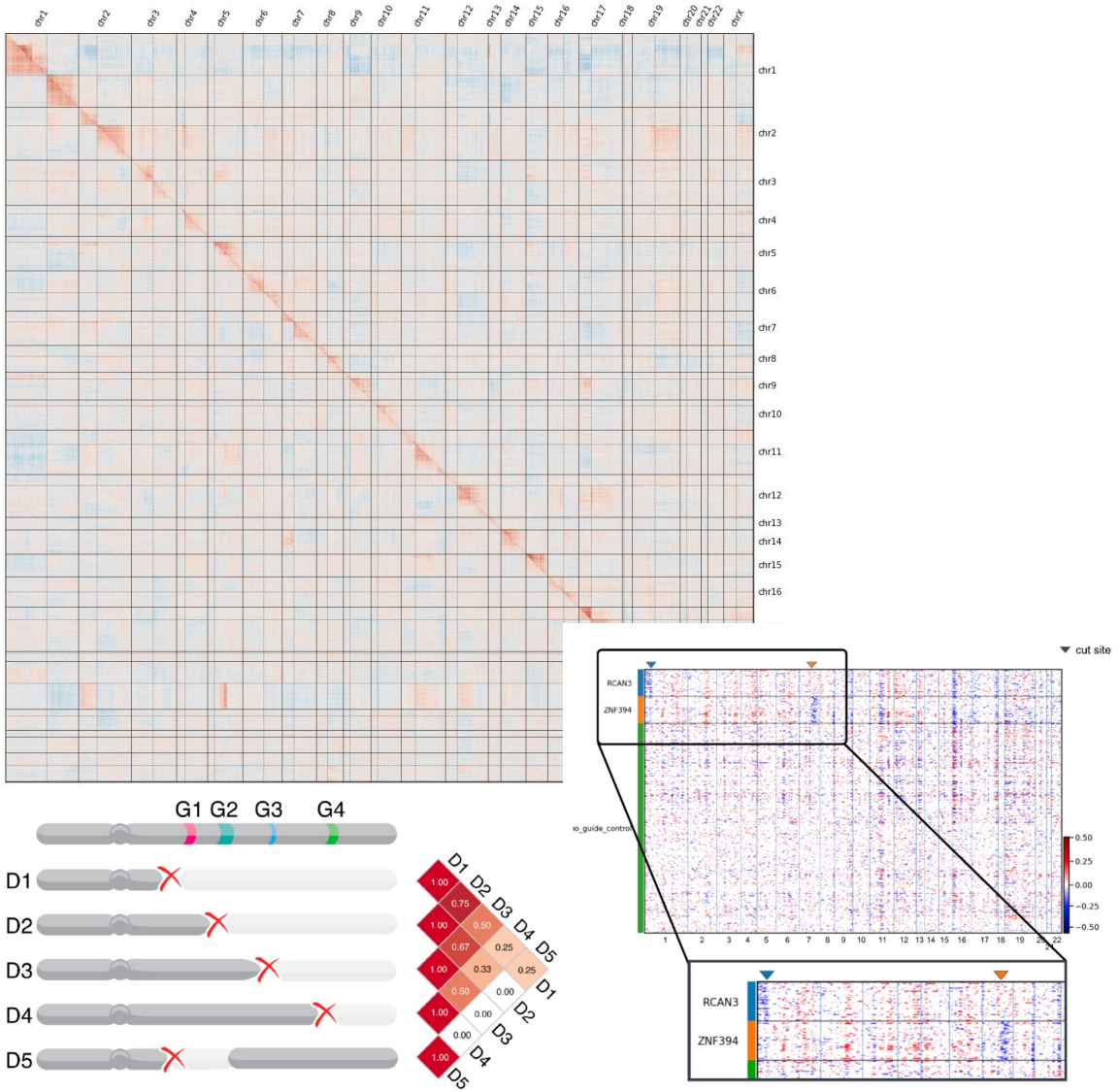
Source: Frost & Sullivan

Biology and chemistry are complex – data that is reliable, relatable, and scalable is the Recursion differentiator

Year	2018	2019	2020	2021	2022
Total Phenomics Experiments (Millions)	8	24	56	115	175
Total Transcriptomics Experiments (Thousands)	NA	NA	2	91	258
Data (PB)	1.8	4.3	6.8	12.9	21.2
Cell Types	12	25	36	38	48
Unique Compounds Physically Housed at Recursion[1] (Millions)	0.02	0.1	0.7	1.0	1.7
In Silico Chemistry Library (Billions)	NA	0.02	3	12	>1,000
Predicted Biological and Chemical Relationships[2] (Trillions)	NA	NA	0.01	0.2	3.1

[1] *Includes approximately 500,000 compounds from Bayer's proprietary library.*
[2] *'Predicted Relationships' refers to the number of Unique Perturbations that have been predicted using our maps.*

CRISPR proximity bias revealed using genome-wide phenomics screens



- Recursion demonstrated that **CRISPR-Cas9 editing induces chromosome arm-scale truncations** across the genome
- **Creates a proximity bias** in CRISPR screens which can confound some gene-gene relationships
- Recursion **demonstrated a correction method** leveraging public CRISPR-Cas9 knockout screens to **mitigate bias**
- Read “High-resolution genome-wide mapping of chromosome-arm-scale truncations induced by CRISPR-Cas9 editing” at www.biorxiv.org
- Already in the **top 5% of research outputs** in online engagement www.altmetric.com

COVID-19 research

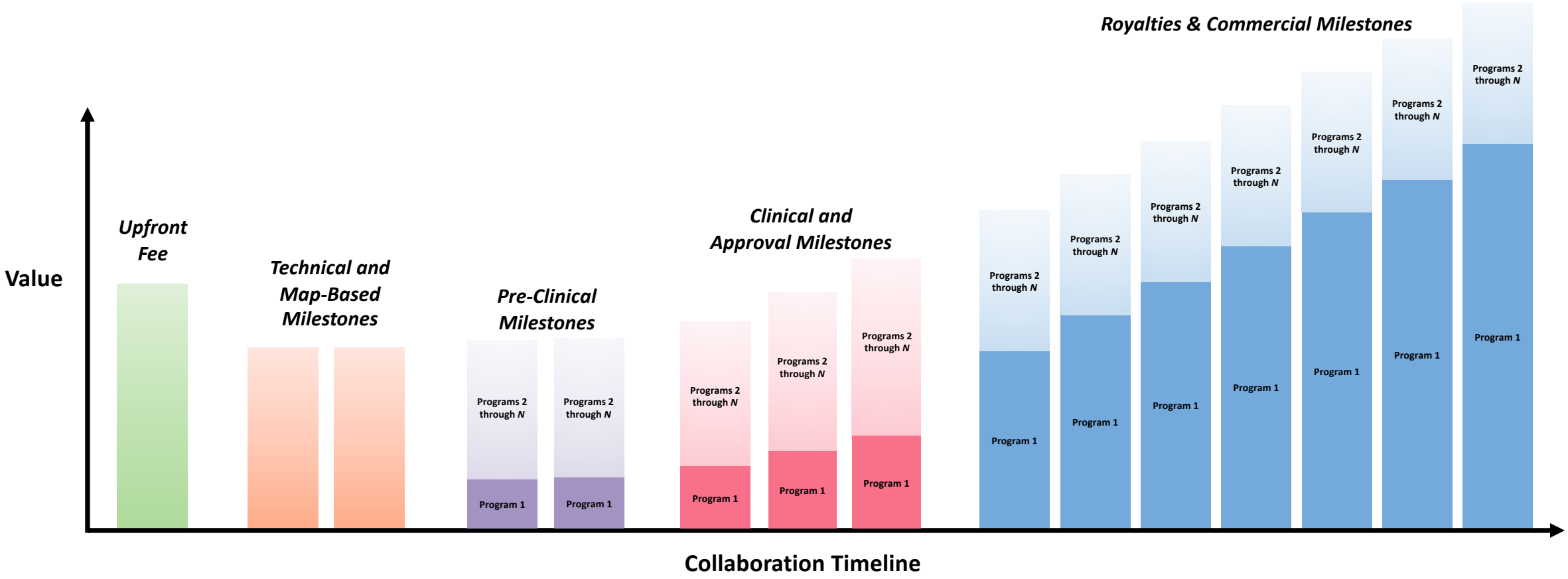
Drug	Prediction	Correct?
Hydroxychloroquine	x	✓
Lopinavir	x	✓
Ritonavir	x	✓
Remdesivir	✓	✓
Baricitinib	✓	✓
Tofacitinib	✓	✓
Ivermectin	x	✓
Fluvoxamine	x	✓
Dexamethasone	x	x

- Recursion conducted several AI-enabled experiments in April 2020 to investigate therapeutic potential for COVID-19
  - Included FDA-approved drugs, EMA-approved drugs, and compounds in late-stage clinical trials for the modulation of the effect of SARS-CoV-2 on human cells
- Experiments were compiled into the **RxRx19 dataset** (860+ GB of data) and **made publicly available** to accelerate the development of methods and pandemic treatments.
- **Recursion OS correctly predicted 8 of 9 clinical trials** associated with early and late-stage COVID-19

https://www.biorxiv.org/content/10.1101/2020.04.21.054387v1

Transformational collaborations provide multiple potential value inflection points

Illustrative example of potential value inflection points



Clinical: CCM

SYCAMORE Clinical Trial : REC-994 for CCM Phase 2 Underway

PREVALENCE & STANDARD OF CARE

~360,000

Symptomatic US + EU5, >1 million patients worldwide live with these lesions today

>5x larger US patient population than other rare diseases like Cystic Fibrosis (>31k patients)

No approved therapy

- No other potential therapeutic in industry-sponsored clinical development
- Most patients receive no treatment or only symptomatic therapy

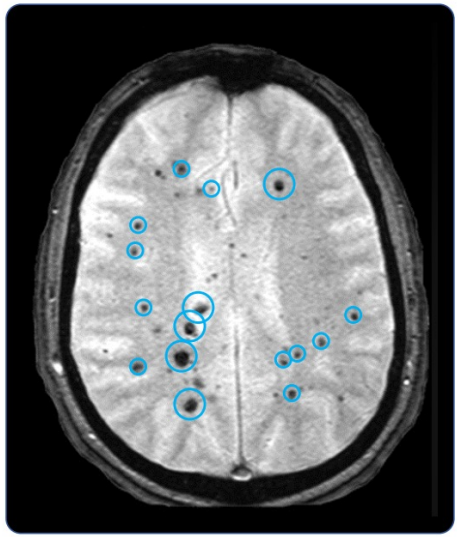
CAUSE

LOF mutations in genes *CCM1*, *CCM2* & *CCM3*, key for maintaining the structural integrity of the vasculature due to unknown mechanisms

PATHOPHYSIOLOGY & REASON TO BELIEVE

Vascular malformations of the CNS leading to focal neurological deficits, hemorrhage and other symptoms

Efficacy in Recursion OS as well as functional validation via scavenging of massive superoxide accumulation in cellular models; reduction in lesion number with chronic administration in mice



Vascular malformations (cavernomas)

Julia – living with CCM

KEY ELEMENTS

- Targeting **sporadic and familial symptomatic CCM** patients with *CCM1*, *CCM2*, and *CCM3* mutations
- Superoxide scavenger, small molecule
- Phase 2 trial initiated in Q1 2022
- US & EU **Orphan Drug Designation**
- Oral dosing

Clinical: NF2

POPLAR Clinical Trial : REC-2282 for NF2 Phase 2/3 Underway

PREVALENCE & STANDARD OF CARE

~33,000 **Treatable US + EU**

No approved therapy

- There are no approved drugs for NF2
- Surgery is standard of care (when feasible)
- Location may make complete resection untenable, leading to hearing loss, facial paralysis, poor balance and visual difficulty

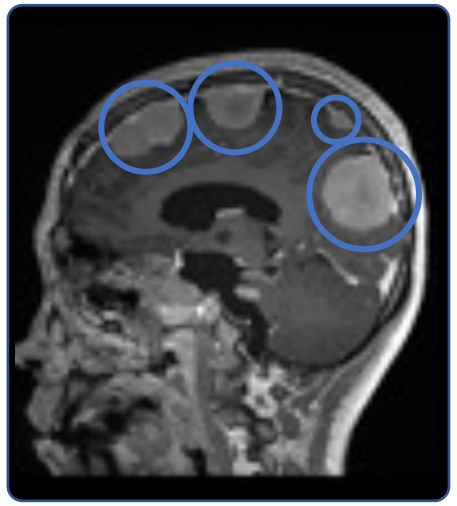
CAUSE

LOF mutations in NF2 tumor suppressor gene, leading to deficiencies in the tumor suppressor protein merlin

PATHOPHYSIOLOGY & REASON TO BELIEVE

Inherited rare **CNS tumor syndrome** leading to loss of hearing and mobility, other focal neurologic deficits

Efficacy in Recursion OS, cellular, and animal models; suppression of aberrant ERK, AKT, and S6 pathway activation in a Phase 1 PD Study in NF2 patient tumors



Intracranial meningiomas

Ricki – living with NF2

KEY ELEMENTS

- Targeting **familial and sporadic NF2 meningioma** patients
- HDAC inhibitor, small molecule
- Oral dosing
- Phase 2/3 trial initiated in Q2 2022
- **Fast-Track** and US & EU **Orphan Drug Designation**

Clinical: FAP

TUPELO Clinical Trial : REC-4881 for FAP Phase 2 Underway

PREVALENCE & STANDARD OF CARE

~50,000 **Diagnosed US + EU5**

No approved therapy

- Colectomy during adolescence (with or without removal of rectum) is standard of care
- Post-colectomy, patients still at significant risk of polyps progressing to GI cancer
- Significant decrease in quality-of-life post-colectomy (continued endoscopies, surgical intervention)

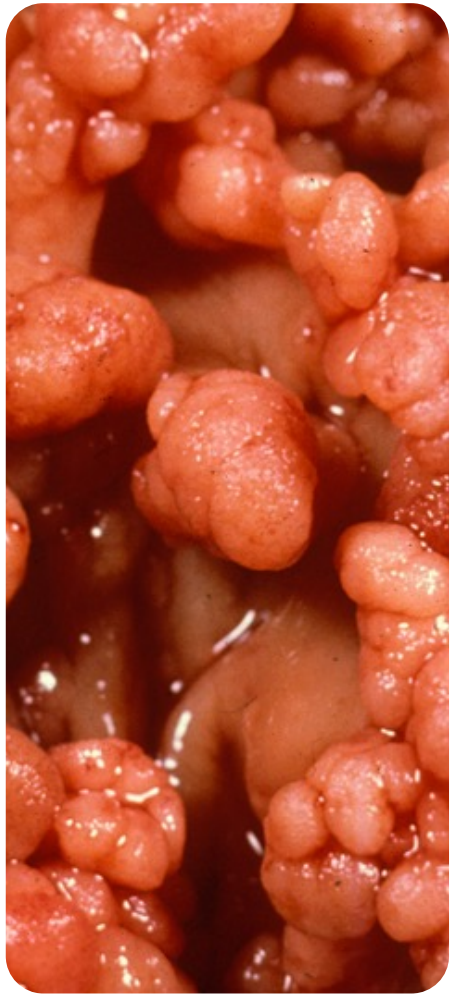
CAUSE

Inactivating mutations in the tumor suppressor gene *APC*

PATHOPHYSIOLOGY & REASON TO BELIEVE

Polyps throughout the GI tract with extremely high risk of malignant transformation

Efficacy in the Recursion OS showed specific MEK 1/2 inhibitors had an effect in context of *APC* LOF. Subsequent APC^{min} mouse model showed potent reduction in polyps and dysplastic adenomas



Polyps Found in Colon and Upper GI Tract

KEY ELEMENTS

- Targeting **classical FAP patients (with *APC* mutation)**
- MEK inhibitor, small molecule
- Oral dosing
- Phase 2 trial initiated in Q3 2022
- **Fast-Track** and US & EU **Orphan Drug Designation**

Clinical: AXIN1 or APC

Clinical Program : REC-4881 for AXIN1 or APC Mutant Cancers

PREVALENCE & STANDARD OF CARE

~65,000 **Treatable US + EU5**

Substantial need for developing therapeutics for patients harboring mutations in *AXIN1* or *APC*, as **these mutations are considered undruggable**

To our knowledge, REC-4881 is the **only industry sponsored small molecule therapeutic** designed to enroll solid tumor patients harboring mutations in *AXIN1* or *APC*

CAUSE

LOF mutations in *AXIN1* or *APC* tumor suppressor genes

PATHOPHYSIOLOGY & REASON TO BELIEVE

Alterations in the WNT pathway are found in a **wide variety of tumors** and confer poor prognosis and resistance to standard of care

Efficacy in the Recursion OS and favorable results in PDX models harboring *AXIN1* or *APC* mutations vs wild-type leading to a significant PFS benefit in HCC and Ovarian tumors

KEY ELEMENTS

- Targeting **solid tumors with *AXIN1* or *APC* mutant cancers**
- MEK inhibitor, small molecule
- Oral dosing
- Finalize design of a Phase 2 biomarker-enriched trial
- Initiate Phase 2 trial in select tumor types in early 2024

Gross morphology of HCC

Clinical: C. Difficile

Clinical Trial : REC-3964 for C. Difficile Phase 1 Underway

PREVALENCE & STANDARD OF CARE

~730,000 **Diagnosed US + EU5**

Standard of care includes antibiotic therapies which can further impair gut flora, and lead to relapse

CAUSE

C. difficile toxins from colonizing bacterium causes degradation of colon cell junction, toxin transit to bloodstream, and morbidity to host

KEY ELEMENTS

- Selective C. diff toxin inhibitor, small molecule
- **Non-antibiotic approach** with potential for combination with SOC and other therapies
- Designed for **selective antitoxin pharmacology** to target infection
- FIH Phase 1 trial initiated in Q3 2022

PATHOPHYSIOLOGY & REASON TO BELIEVE

Highly recurrent infectious disease with severe diarrhea, colitis, and risk of toxic megacolon, sepsis, and death

Recursion OS identified a new chemical entity for recurrent C. difficile infection and potentially prophylaxis via glycosyl transferase inhibition with potential to be orally active

TRIAL UPDATE

- Enrollment is progressing
- In several SAD cohorts and at least one MAD cohort, REC-3964 has been extremely safe and well tolerated
- Complete safety and PK data **readout expected 2H 2023**

Colleen – lived with rCDI