

Grow
with Ginkgo



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This presentation contains certain estimated preliminary financial results and key operating metrics for the year ended December 31, 2020, and the historical financial information with respect to the year ended December 31, 2019, which has been taken from or prepared based on historical financial statements of Ginkgo, including unaudited financial statements for its fiscal year ended December 31, 2020. This information is preliminary and subject to change with the completion of the audit for the fiscal year ended December 31, 2020. As such, Ginkgo's actual results and financial condition as reflected in the financial statements that will be included in the proxy statement for the proposed Transaction may be adjusted or presented differently from the historical financial information herein, and the variations could be material.

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Certain of the financial measures included in this presentation, including Foundry Billable Revenue, Foundry Billable Revenue Growth, Net Present Value (NPV) and Adjusted EBITDA, have not been determined in accordance with accepted accounting principles ("GAAP"), and constitute "non-GAAP financial measures" as defined by the SEC. Ginkgo has included these non-GAAP financial measures (including on a forward-looking basis) as an additional tool for investors to use in evaluating the financial performance and prospects of Ginkgo or any successor entity in the Transaction. These non-GAAP financial measures should not be used as an alternative to, or in place of, financial measures determined in accordance with GAAP. In addition, these non-GAAP financial measures may differ from non-GAAP financial measures with comparable names used by other companies. For a description of these non-GAAP financial measures and a reconciliation of the historic measures to Ginkgo's most comparable GAAP financial measures. Note however, that to the extent such reconciliations are provided herein, they are not reconciled to comparable forward-looking GAAP measures due to the inherent difficulty in forecasting and quantifying certain amounts that are necessary to compute such non-GAAP financial measures.

Use of Projections

This presentation also contains certain financial forecasts, including projected Foundry Billable Revenue, Foundry Billable Revenue Growth, Foundry Revenue (GAAP), Biosecurity Revenue, Total Revenue (GAAP) and Adjusted EBITDA. Neither SRNG's nor Ginkgo's independent auditors have studied, reviewed, compiled or performed any procedures with respect to the projections for the purpose of their inclusion in this presentation. SRNG has expressed an opinion or provided any other form of assurance with respect thereto for the purpose of this presentation. These projections are for illustrative purposes only and should not be relied upon as a representation of future results. In this presentation, certain of the above-mentioned projected information has been provided for purposes of providing comparisons with historical data. The assumptions and estimates used in the projected financial information are inherently uncertain and are subject to a wide variety of significant business, economic and competitive risks and uncertainties that could cause actual results to differ materially from those presented in the projected financial information. Projections are inherently uncertain due to a number of factors outside of SRNG's or Ginkgo's control. While all financial projections, estimates and targets are necessary for the preparation of prospective financial information involves increasingly higher levels of uncertainty the further out the projection, estimate or target extends from the date of preparation. Accordingly, prospective results are indicative of future performance of the combined company after the Transaction or that actual results will not differ materially from those presented in the prospective financial information in this presentation should not be regarded as a representation by any person that the results contained in the prospective financial information will be achieved.

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Investors and security holders of SRNG and Ginkgo are urged to read the proxy statement/prospectus and other relevant documents that will be filed with the SEC carefully and in their entirety. These documents contain important information about the proposed Transaction. Investors and security holders will be able to obtain free copies of the proxy statement and other documents containing important information about the proposed Transaction from the website maintained by the SEC at www.sec.gov. Copies of the documents filed with the SEC by SRNG can be obtained free of charge by directing a written request to SRNG, 955 Fifth Avenue, New York, NY 10020.

Transaction Overview

Transaction Summary

- Ginkgo Bioworks has entered into a definitive agreement to merge with Soaring Eagle Acquisition Corp. (Nasdaq:SRNG), valuing Ginkgo at an enterprise value of \$15 billion
- All-primary transaction will result in gross proceeds of \$2.5 billion, through a combination of:
 - SRNG’s \$1,725 million cash in trust⁽¹⁾
 - \$775 million of committed PIPE financing at \$10 / share including anchor commitments from Baillie Gifford, Putnam Investments, and funds and accounts managed by Counterpoint Global (Morgan Stanley Investment Management) and a \$75 million investment by the Soaring Eagle sponsor group
 - 30% of sponsor promote converted to earnout; additionally, Ginkgo shareholders will be granted up to 180M earnout shares (11% seller earnout) vesting between \$12.50 and \$20/share
- Closing expected in Q3 2021

Pro Forma En

(\$M, except per share am

Share Price

Pro Forma Shares Out:

POST-TRANSACTION EC

(-) Cash⁽⁶⁾

PRO FORMA ENTERPRISE

Illustrative Sources & Uses

(\$M)

Sources		Uses	
SRNG Cash Held in Trust ⁽¹⁾	\$1,725	Consideration Shares ⁽²⁾	\$15,000
Cash Proceeds from PIPE	775	Cash to Balance Sheet ⁽¹⁾	2,365
Rollover by Equity Holders ⁽²⁾	15,000	Parties’ Transaction Fees ⁽³⁾	135
TOTAL	\$17,500	TOTAL	\$17,500

- Ginkgo Bioworks
- SRNG Shareholders
- PIPE Shareholders
- Sponsor Shares

(1) Assumes no redemptions

(2) Inclusive of value attributable to all outstanding equity awards other than those subject to unsatisfied service-based vesting conditions; includes aggregate exercise prices of outstanding options and warrants

(3) Represents estimated transaction expenses based on a \$775M PIPE as of 5/6/2021

(4) Enterprise Value calculation excludes \$18M in financing lease liabilities as of 12/31/2020

(5) Includes 1.5B Consideration Shares to Ginkgo, 172.5M shares to SRNG shareholders, 77.5M shares to PIPE shareholders and 30.2M shares retained by SRNG sponsor (inclusive of 150,000 shares transferred to SRNG’s independent directors)

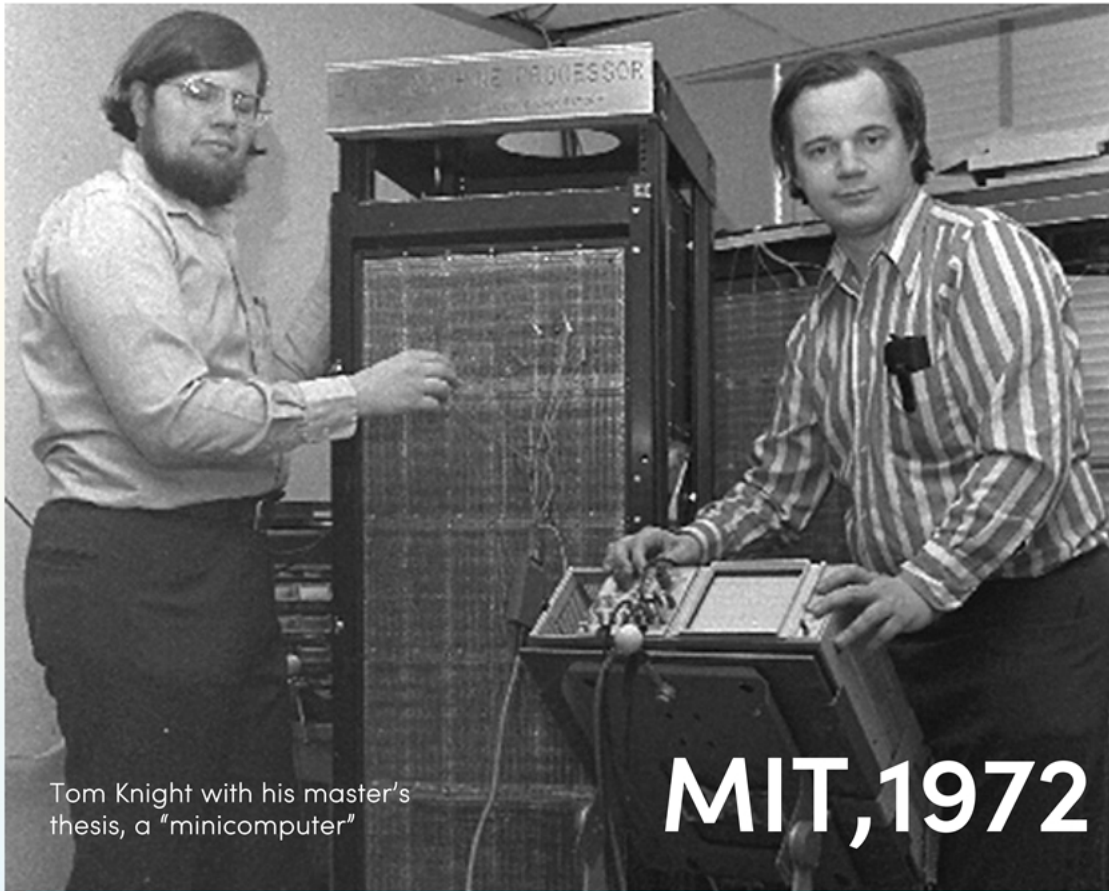
(6) Includes Ginkgo cash balance of \$274M as of 4/30/2021; excludes restricted cash and any disbursements that may be made from US DFC loan under negotiation

(7) Assumes no redemptions and excludes SRNG / Ginkgo earn-out shares and SRNG warrants

Our Mission

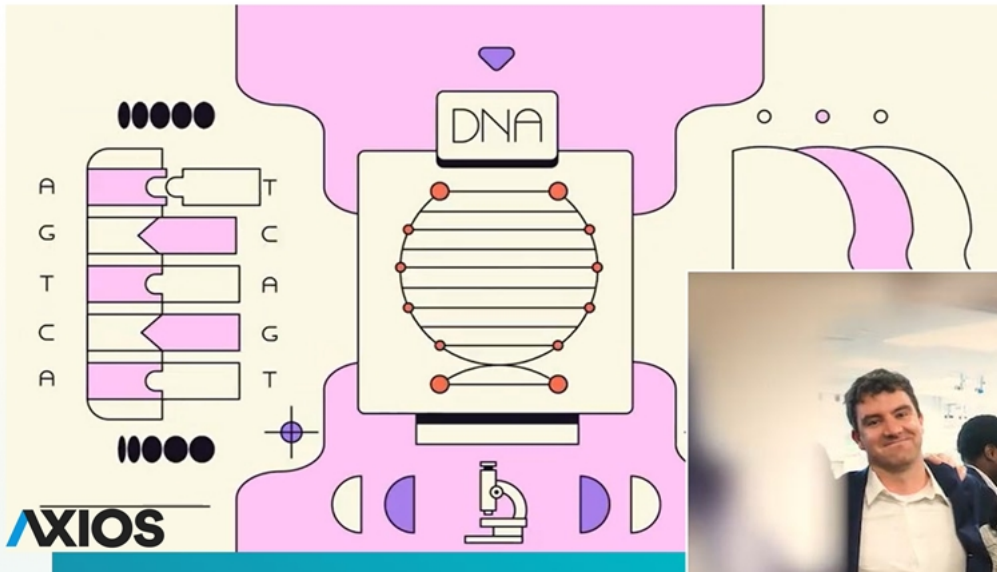
Make biology
easier to engineer





The founders have been working together for nearly 20 years on this vision of synthetic biology





AXIOS

[LEARN MORE ↗](#)



**Bloomberg
Businessweek**

▲ Bloomberg Businessweek Debrief: A Conversation with Jason Kelly

[LEARN MORE ↗](#)

We can program cells (DNA)
like we program computers (code)

Joel Weber: It's been a few class. Remind me, what is s

Jason Kelly: Think of a cell that runs on digital code, ver this case the code—instead of and G's. The cell reads that c a cell does in our body—or a l They're all running on that d code with DNA sequencing a synthesis or DNA printing. If code, and you have a machin programming. So synthetic b we program computers, by c them.

Cell programming is increasingly impacting our lives



Vaccines are developed and manufactured using cell programming tools

Ginkgo's work to close raw material of vaccine supply chain was recently featured



Cell programming is addressing our most challenging environmental and

Pharma & Biotech

Antibody therapeutic development

Nucleic acid vaccine production

Antibiotic discovery and manufacturing

Microbiome therapeutics

Gene and cell therapies

Read "[Microscopic Doctors](#)" on Grow ↗



Industrials & Environment

Wastewater remediation

Renewable chemicals

PFAS degradation

Sustainable building materials

Carbon sequestration

Read "[Anatomy of an Underground Wildfire](#)" on Grow ↗



Food & Agriculture

Animal protein replacement

Sugar reduction

Brewing & baking

Fertilizer reduction

Pest control

Animal feed and aquaculture

Read "[Redesigning the Banana](#)" on Grow ↗



Con

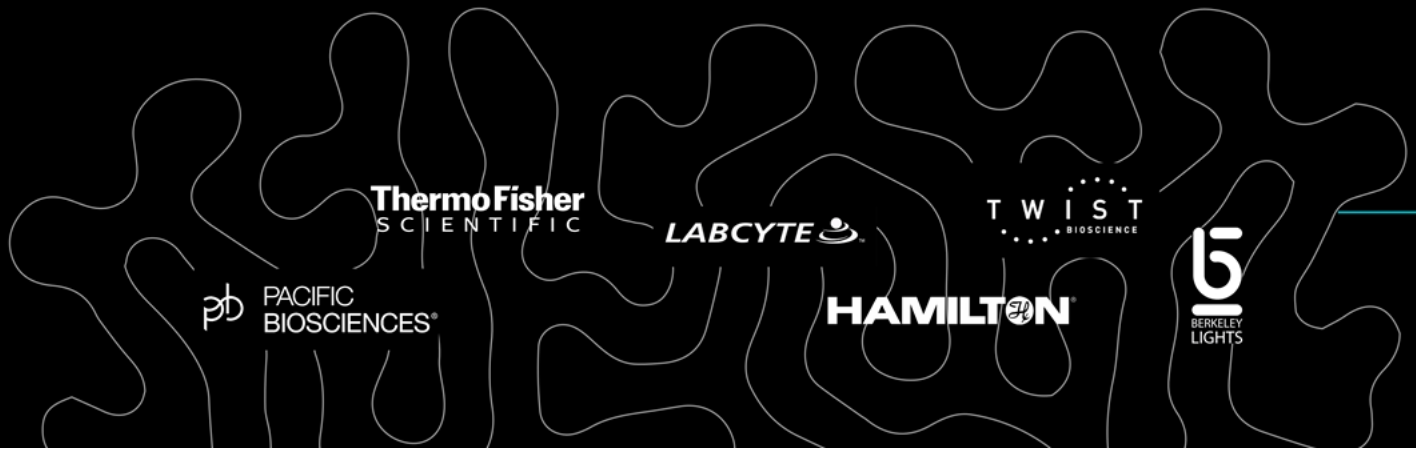
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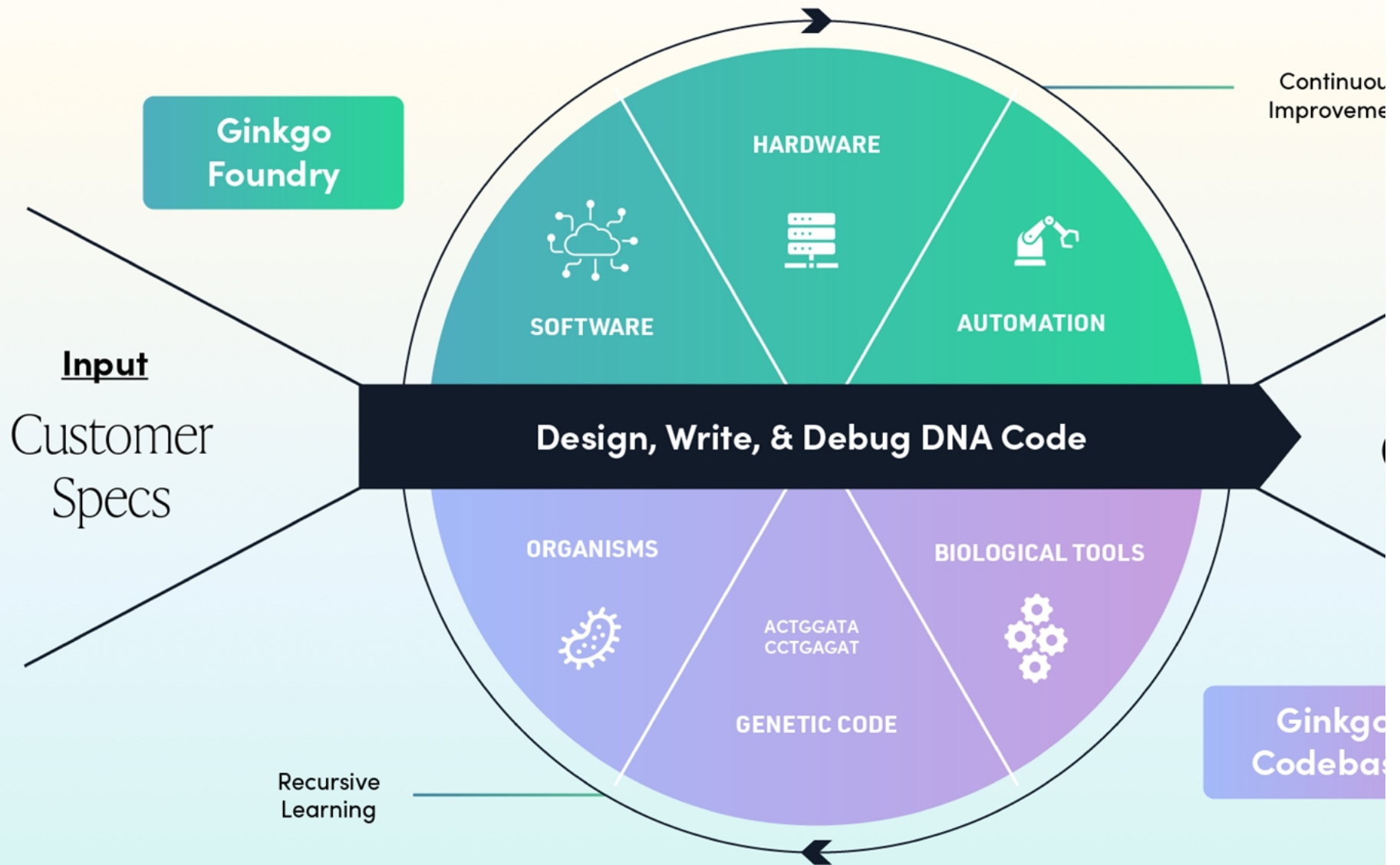
Read
Rev



Ginkgo is building the leading horizontal platform for cell programming across all industries



We program cells for our customers so they can develop new



Customers run their programs on Ginkgo's platform to drive business value

Ginkgo partnered with Motif to develop **more delicious and sustainable food**.

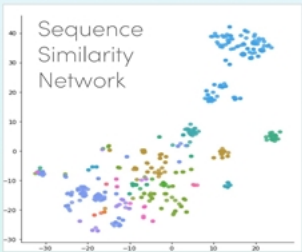
In just 1 year, 6 prototype strains were developed, and product samples were produced for benchmarking and early application testing. Improved variants were designed, built and validated over the next 9 months.

The strain's performance exceeded Motif's specifications by >70%.

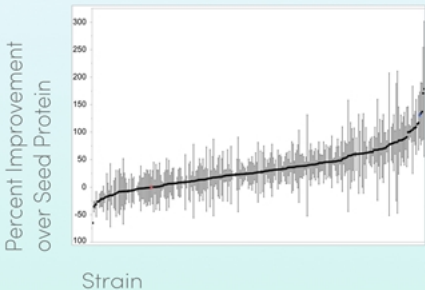
303
PROTEINS
SOURCED



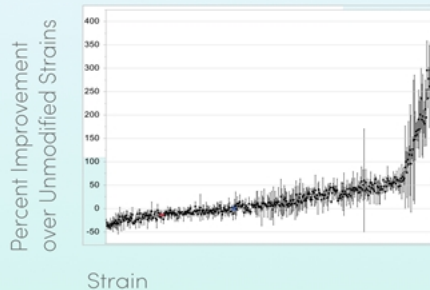
Q1
IDENTIFY POTENTIAL
PROTEINS



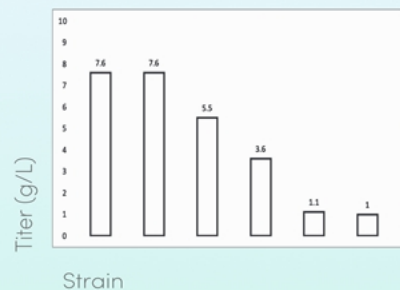
Q2
SCREEN FOR BEST
CANDIDATE PROTEIN



Q3
STRAIN ENGINEERING &
PATHWAY BALANCING



Q4
ITERATIVE STRAIN
CONSTRUCTION & TESTING



1 YEAR
PROTO
READY



Ginkgo is **critical to our success** and development of synbio solutions needed for us to be successful.

**CEO,
INDUSTRIALS**

Our collaboration has been successful in large part because the Ginkgo team is **thoughtful, creative, communicative**, and willing to iterate as more data becomes available. As we grow, we hope to foster a similar culture.

**CHIEF BUSINESS OFFICER,
PHARMA**

We highly value the Ginkgo relationship and the window it provides into synthetic biology as an industry and **national capability**.

**VP,
INTELLIGENCE / DEFENSE**

Ginkgo is a key **enabler of scale up**.

**COO,
PHARMA**

Ginkgo is [a] valuable partner providing services to our R&D group that **could not otherwise be done internally**.

**MANAGER,
PHARMA**

The engagement of Ginkgo as a partner was absolutely unprecedented, as if we were a single company working towards a single goal.

**DIRECTOR,
CONSUMER / FOOD / TECH**

Our collaboration with Ginkgo is a key pillar to our company strategy, therefore, **the positive impact can not be overstated**.

**DIRECTOR,
CONSUMER / FOOD / TECH**

Ginkgo is **addressing a challenge** that enabled antibody discovery platform partnering, we had screen our own. Together, we screen of 5,000 antibodies developing tools to screen dramatically lower cost

Ginkgo is **opening up research programs** work, but critically improving pipeline.

Ginkgo developed a platform **competitive advantage**

Combining an industry-defining founding team with proven executives who have built iconic public companies

Founding team has been working together for nearly 20 years

Soaring Eagle brings a track record of success



Jason Kelly
CEO



Reshma Shetty
COO



Barry Canton
CTO



Austin Che
Strategy



Tom Knight
DNA Hacker



Harry Sloan
CEO, Chairman



Jeff Sagansky
Partner

with



Arie B. Berman
Founder, Kitano
Founder, Kitano

With long-term support from a deeply experienced, industry-leading independent board



Marijn Dekkers
*Chairman, Governance/Nominating Chair
Board member since 2019*

Fmr Chairman, Unilever (NYSE:UL)
Fmr CEO, Bayer (XTRA:BAYN)
Fmr CEO, Thermo Fisher (NYSE:TMO)



Christian Henry
*Audit Committee Chair
Board member since 2016*

President/CEO, PacBio (Nasdaq:PACB)
Fmr CFO/CCO, Illumina (Nasdaq:ILMN)



We believe...

1

Programming cells will be as impactful as programming computers

The same underlying technology can be used to create applications across all physical goods industries. Ginkgo is the first horizontal platform in this industry, supporting all end markets.

2

Ginkgo's platform improves with scale

Each new program drives platform improvements, leading to more demand.

3

Ginkgo is becoming the industry standard

We believe Ginkgo's ecosystem of services will make us the obvious partner in the enormous, and largely untapped, market for cell programming.

4

Our value increases with each added

Each new program predicts revenue and profit upside share.

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3

Ginkgo is becoming the industry standard

4

Our value is added with each added customer

The promise and power of biology has never been more apparent



APRIL 2019

"...permits the manufacture of all manner of things which used to be hard, even impossible, to make: pharmaceuticals, fuels, fabrics, foods, and fragrances can all be built molecule by molecule."

[READ MORE ↗](#)



11 MONTHS LATER: MARCH 2020

"Planet earth is shutting down... desperate governments are...handing out trillions of dollars in aid and loan guarantees"

[READ MORE ↗](#)

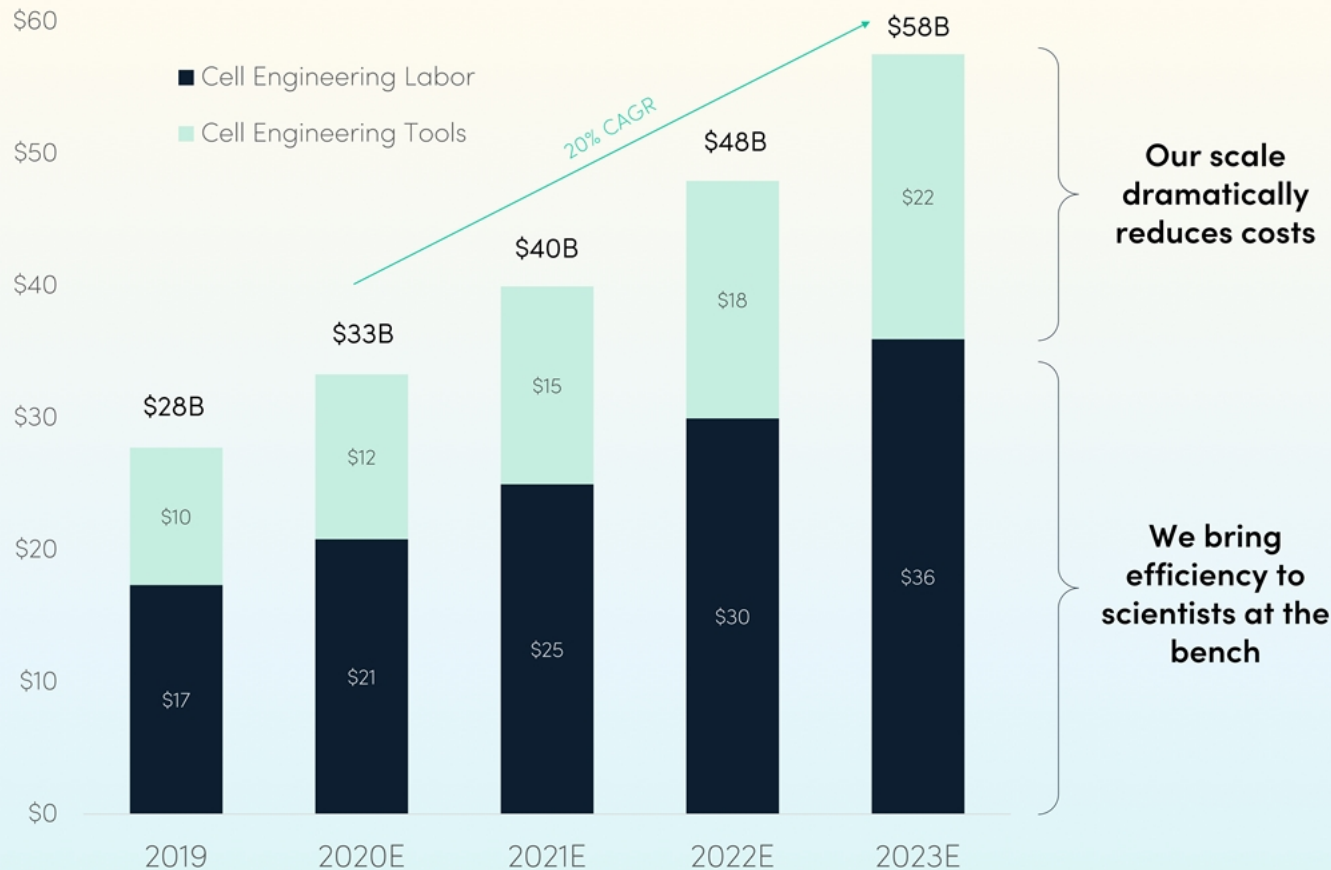


1 YEAR LAT

"Now we have revolution. Ch coding will be j ge

R&D spending alone accounts for nearly \$40B in untapped demand

Existing market for cell engineering lab operations (\$B)



Source: Piper Sandler Research

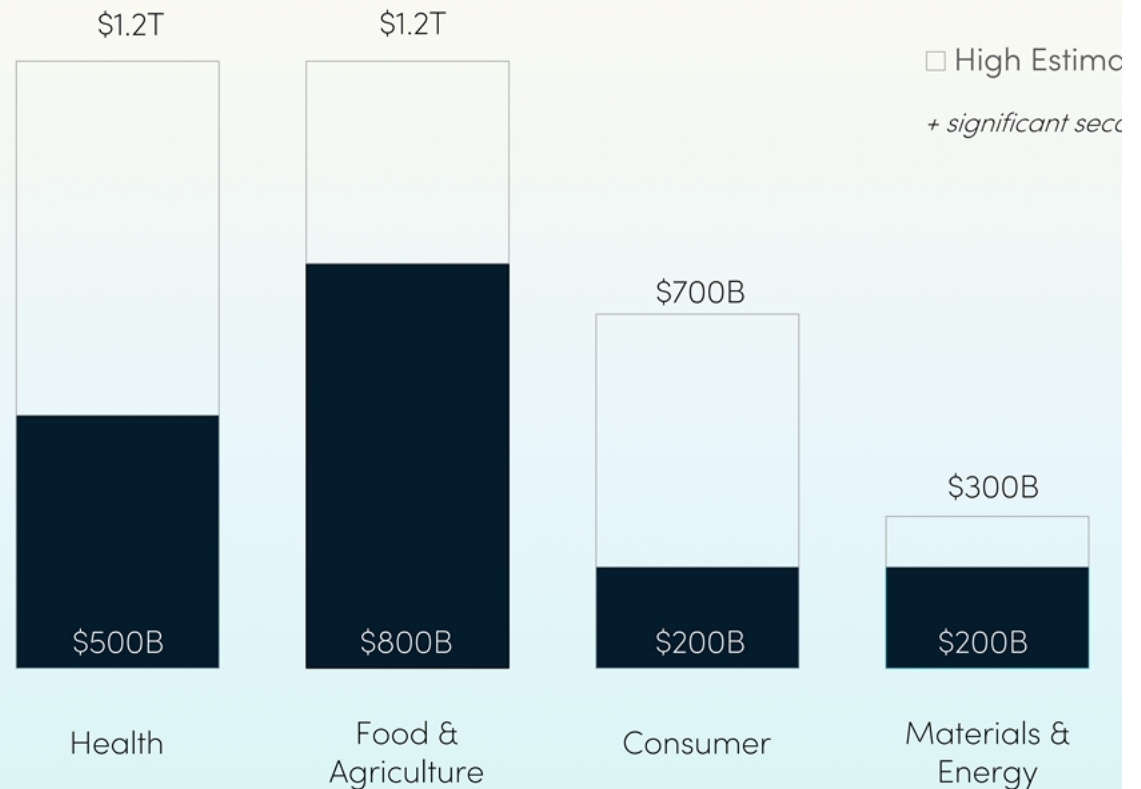
(1) Assumes approximately \$2M annual expense per program, in line with current average annual spend per program at Ginkgo

This market
over **20,000**
new cell pr

\$2 to \$4 trillion emerging market for bioengineered products

**Programming
biology is to the
physical world what
programming
computers is to the
information economy**

Annual Direct Economic Impact By Domain
2030–2040 (partial estimate)



Source: McKinsey Global Institute; *The Bio Revolution: Innovations transforming economies, societies*
Note: these estimates reflect the estimated biotechnology penetration of these end-markets

We believe...

1

Programming cells will be as impactful as programming computers

2

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Each new program drives platform improvements, leading to more demand.

3

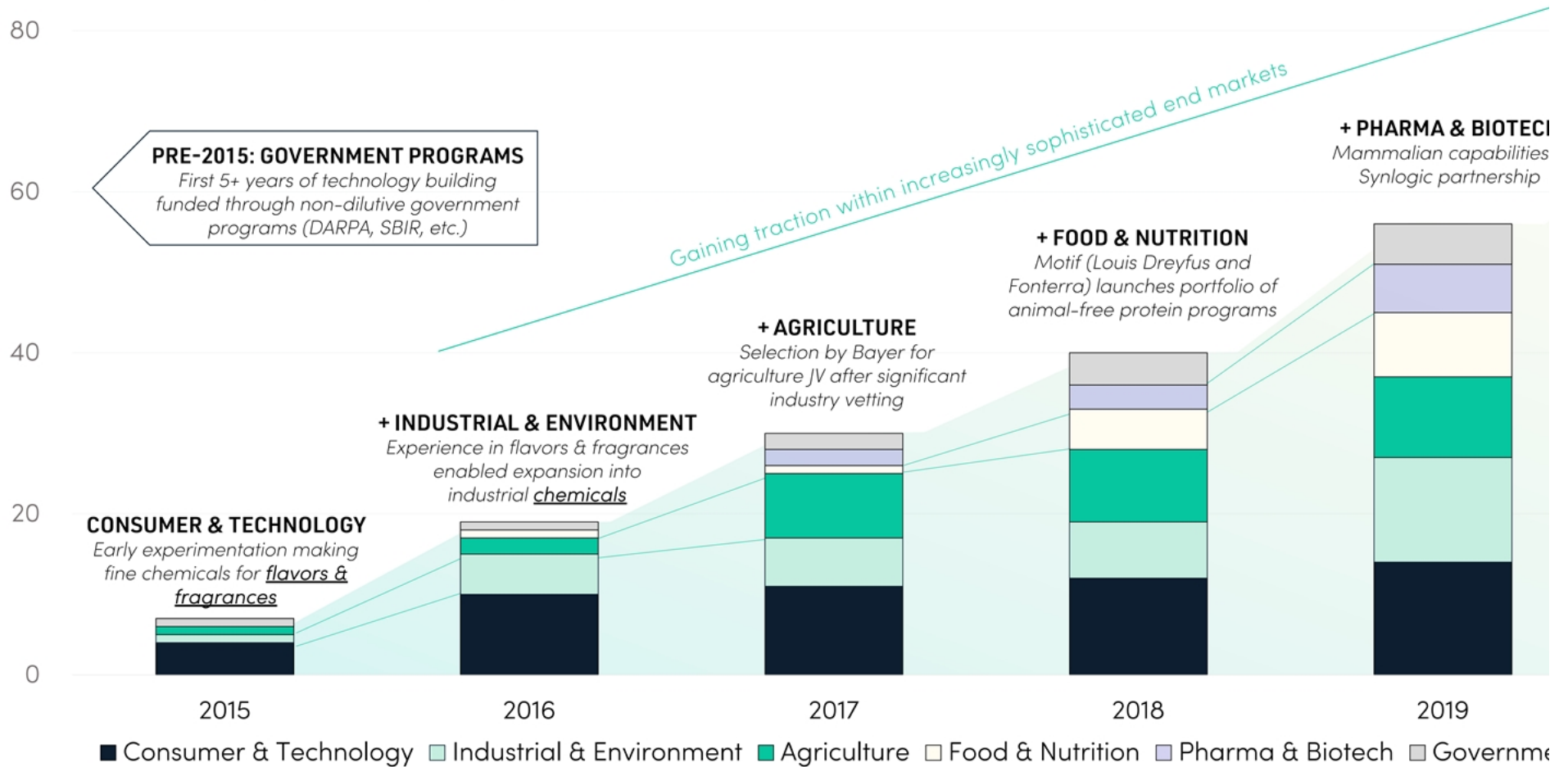
Ginkgo is becoming the industry standard

4

Our value is increasing with each added client

Over 70 major customer programs **across diverse industries** have run on our platform

Cumulative Major 3rd Party Programs



Note: "Major" programs exclude proof of concept work and ancillary projects and typically have at least \$500K actual / expected development costs on behalf of a customer.

Market defining customers have validated the platform across a wide range of end markets



CONSUMER & TECH

- Fragrances**
(G4, G41, G53)
- Cannabinoids**
(G102, G123)
- Insect Repellent**
(G166)
- High-tech electronics**
(G37, G43)



INDUSTRIALS & ENVIRONMENT

- Commodities & Specialty Chemicals**
(G15, G24, G48, G51, G90, G101, G116, G127, G134, G142, G159)
- Textiles**
(G36)
- Environment**
(G131, G138, G145, G153, G164, G171)



AGRICULTURE

- Fertilizers & Crop Enhancement**
(G50, G81, G133)
- Crop Protection**
(G99, G119, G132, G151, G163, G165)
- Animal Feed**
(G16, G68, G71, G146)



FOOD & NUTRITION

- Animal-free proteins**
(G114, G121, G122, G128, G136, G162)
- Flavors & Sweeteners**
(G49, G56, G125, G174)
- Nutrition**
(G35, G69, G109)
- Brewing & Baking**
(G52, G95, G97)



PHARMA

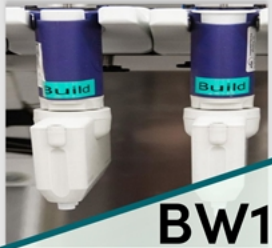
- Microbiome**
(G40, G83, G139, C)
- Biologics & Antibio**
(G66, G71)
- COVID Vaccines**
(G155, G165, C)



Note: Reflects a portion of current / completed programs; program codes have been anonymized

The Foundry - Ginkgo's physical infrastructure - drives a strong scale economic

2012



BW1

Early stages of building higher scale workflows and testing automated techniques

2016



BW2

Created scale modules by function (e.g. DNA synthesis, -omics, sequencing, fermentation, etc.)

2018



BW3

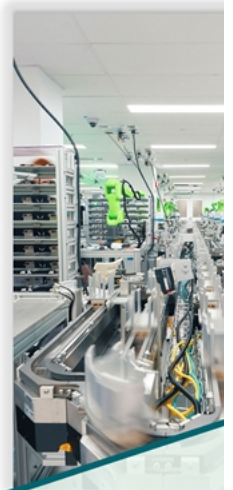
2019



BW4

Added mammalian cell engineering capabilities

2020



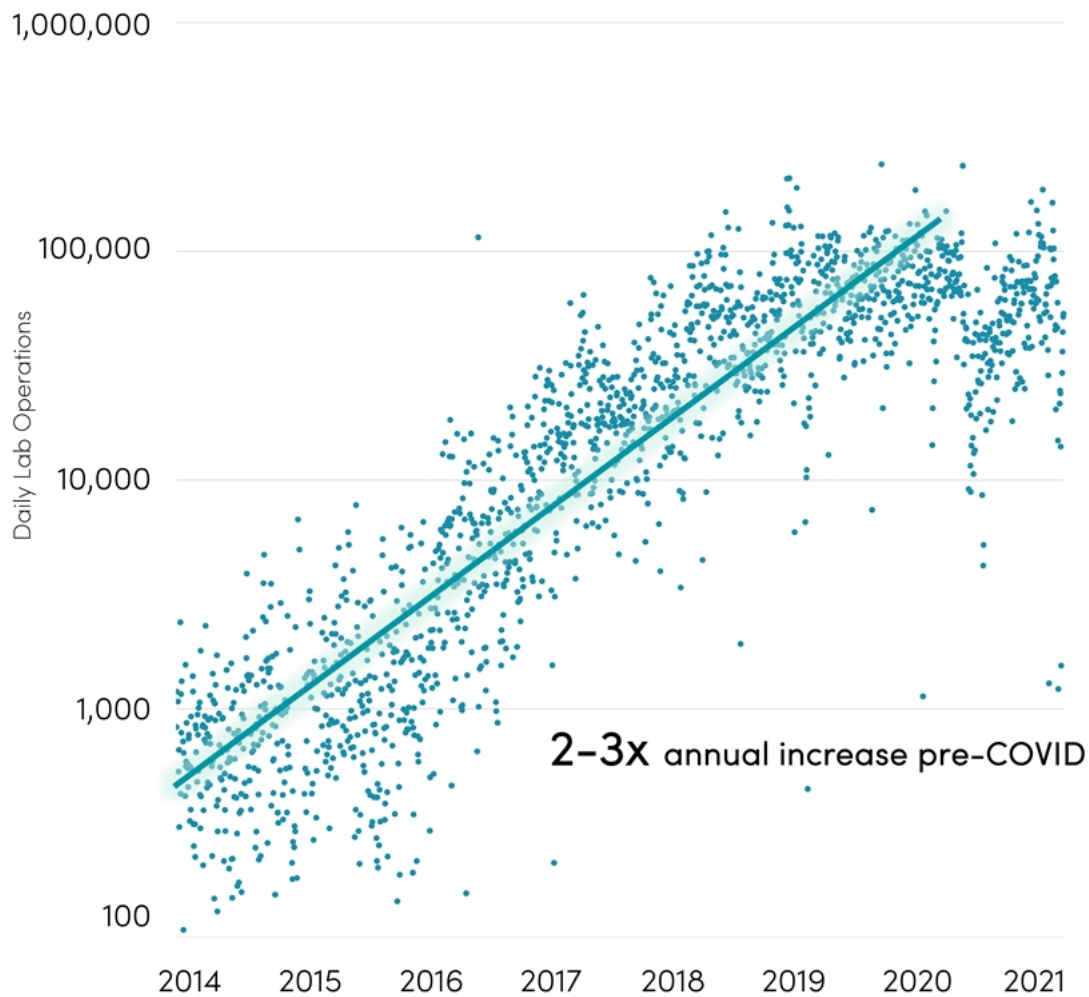
Lab-scale automation and significantly increased NGS capacity

KNIGHT'S LAW – our scale theory

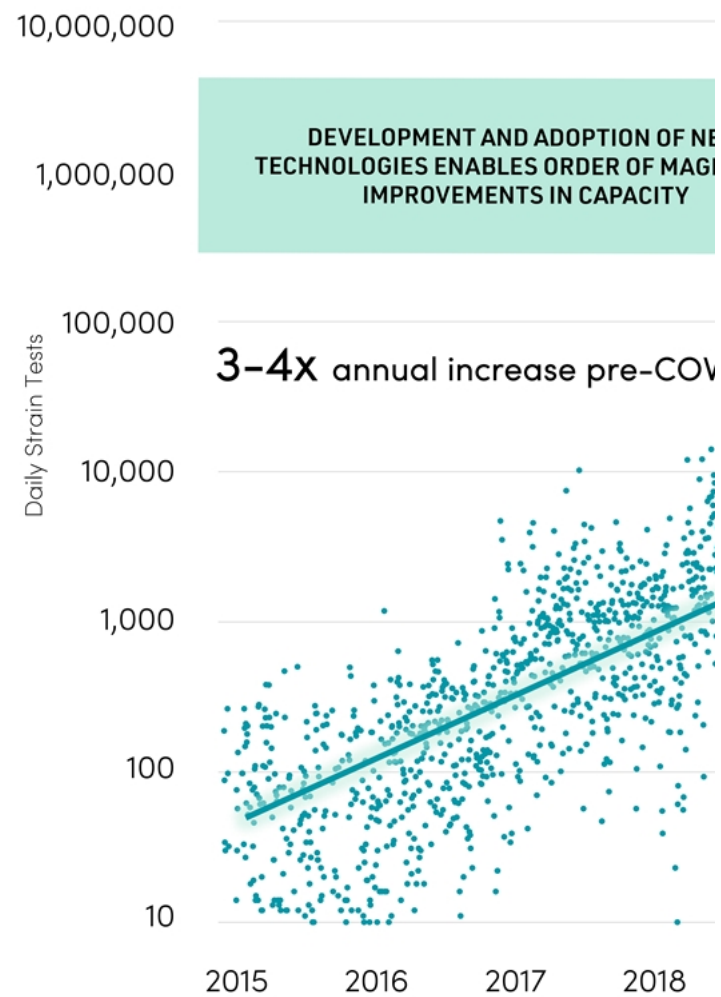
“The cost to genetically engineer a cell is down 50% and the number of designs tested 3X+ per year in Ginkgo's automated foundries.”

Ginkgo's Foundry is scaling roughly 3x per year

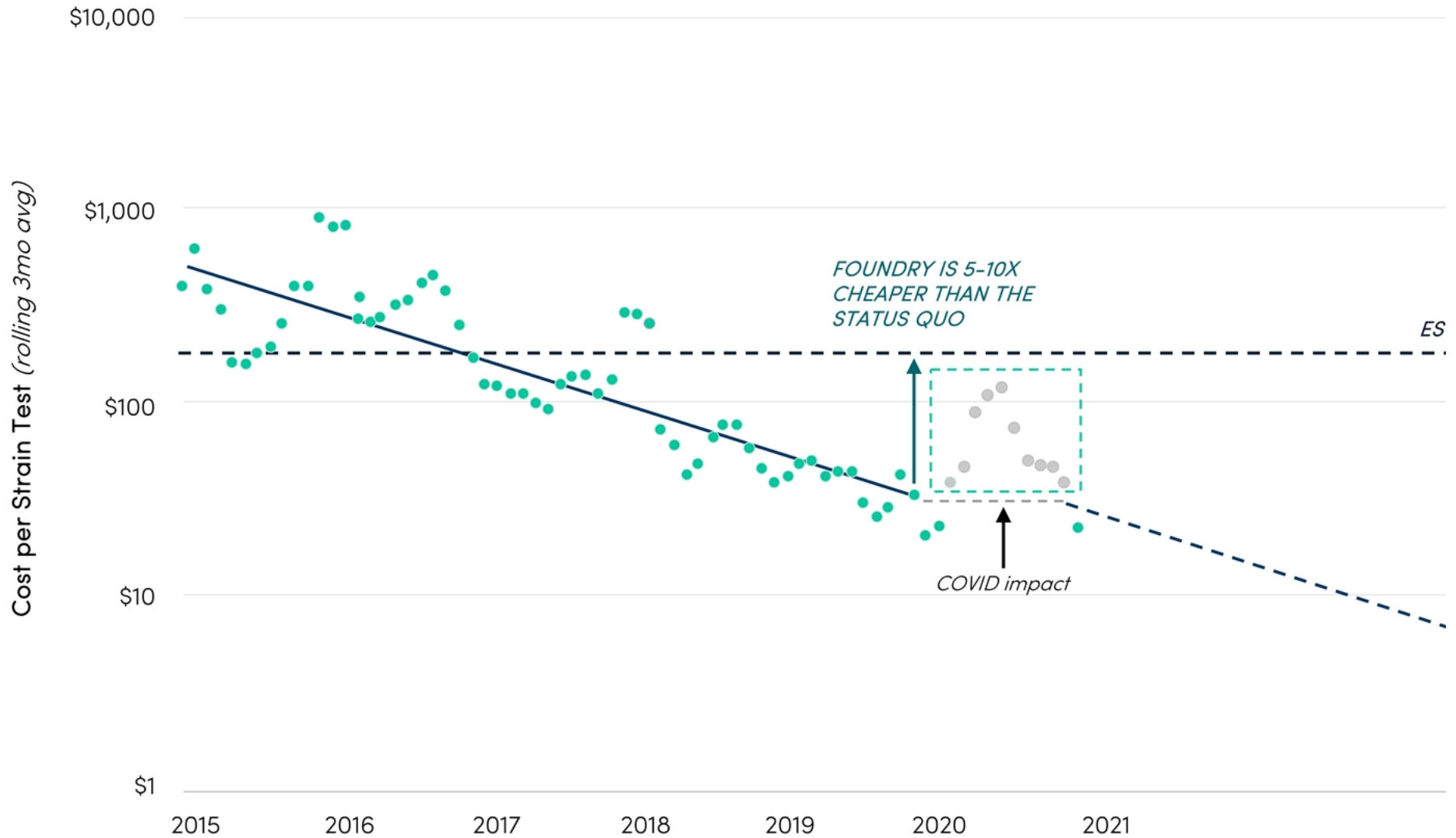
LAB OPERATIONS: MEASURING WORK DONE ON THE PLATFORM



STRAIN TESTS: MEASURING THE OUT



Unit costs to program cells have decreased by 50% per year



Note: Costs include all operational and R&D-related activities (i.e. both current programs and investments in future capacity)

Codebase - Ginkgo's scale data asset - is a source of long-term competitive advantage

3.4B+

unique gene sequences pulled from all public databases

440M

proprietary gene sequences acquired

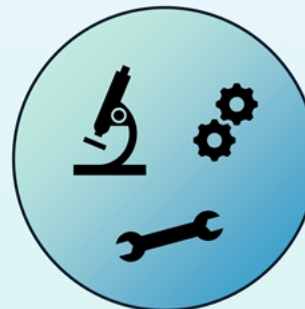
And growing... codebase accumulates as we run new experiments in the foundry and build new:



Organisms



Genetic Code



Biological Tools



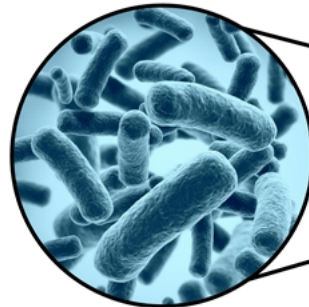
"Ginkgo will organize the world's genetic code and make it useful."

- GINKGO HEAD OF CODEBASE

We learn from wild biology to grow our Codebase

Some crops, such as legumes, have symbiotic microbes that convert atmospheric nitrogen into fertilizer, delivered straight to the plant's roots...

Joyn is working with Ginkgo to leverage this same Codebase for key cereal crops

An infographic with a blue background and a plant illustration. It features text about the \$70B+ nitrogen-based fertilizer market, its environmental impact (5% of greenhouse gas emissions, 4% of natural gas production), and local environmental problems from runoff. It includes a chemical diagram of ammonia (NH3) and a circular inset showing a bacterium in soil. At the bottom, it has a WIRED logo and a headline: 'WITH DESIGNED CROPS COULD C FERTILIZE THEM'.

The **\$70B+** nitrogen-based fertilizer market⁽¹⁾ accounts for approximately:

- 5%** of global greenhouse gas emissions⁽²⁾
- 4%** of global natural gas production⁽³⁾

...and local environmental problems from runoff

WIRED

MEGAN MOLteni SCIENCE 09.14.17 12:10 A

WITH DESIGNED CROPS COULD C FERTILIZE THEM

(1) Source: Grandview Research, as of 2018; imputed 2021 market shown
(2) Source: US Environmental Protection Agency, as of 2018
(3) Source: SSLAC National Accelerator Laboratory (part of DOE), cited by Natural Gas Now, October 2014

IMAGE CREDIT: KAREN INGRAM

CATTLE (BEEF & DAIRY) INDUSTRY:

\$1 trillion global market⁽¹⁾

9% of global greenhouse gas emissions⁽²⁾



FOODWORKS

FAST COMPANY

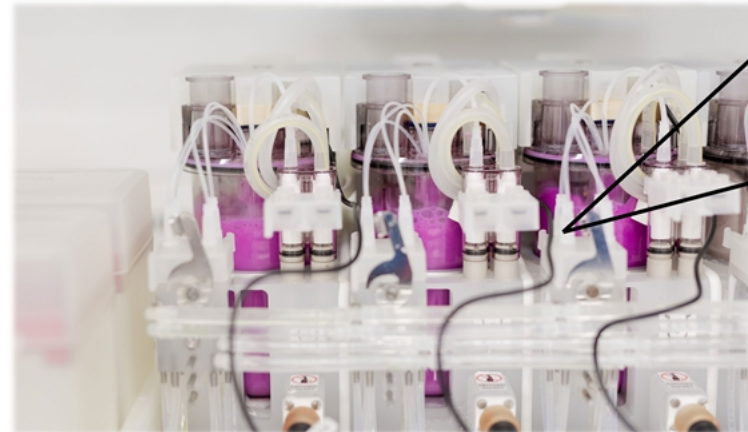
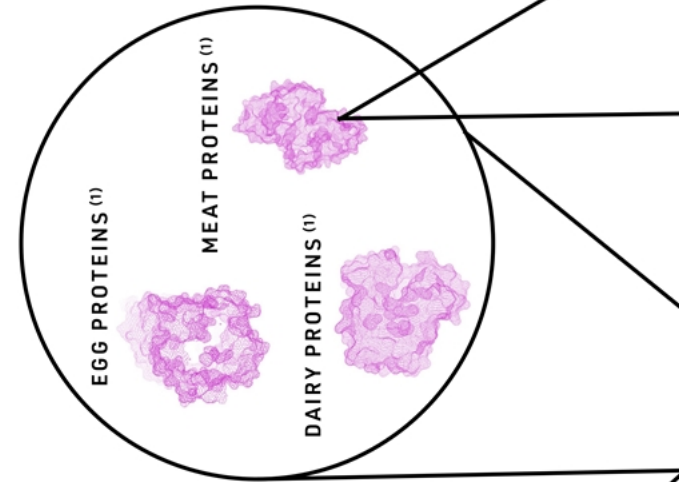
This food tech startup just raised \$90 million to make it easier to invent new plant-based meats

(1) Source: imarc Group (February 2020) and Grandview Research (January 2019)
(2) Source: Barclays Research (April 2019)

CODEBASE

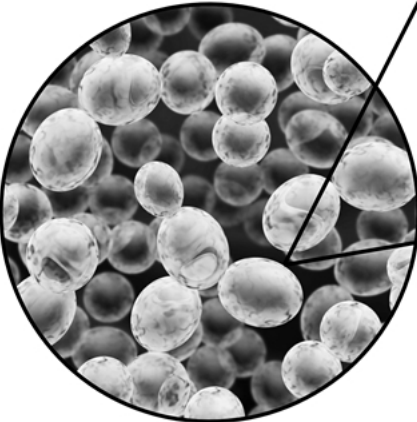
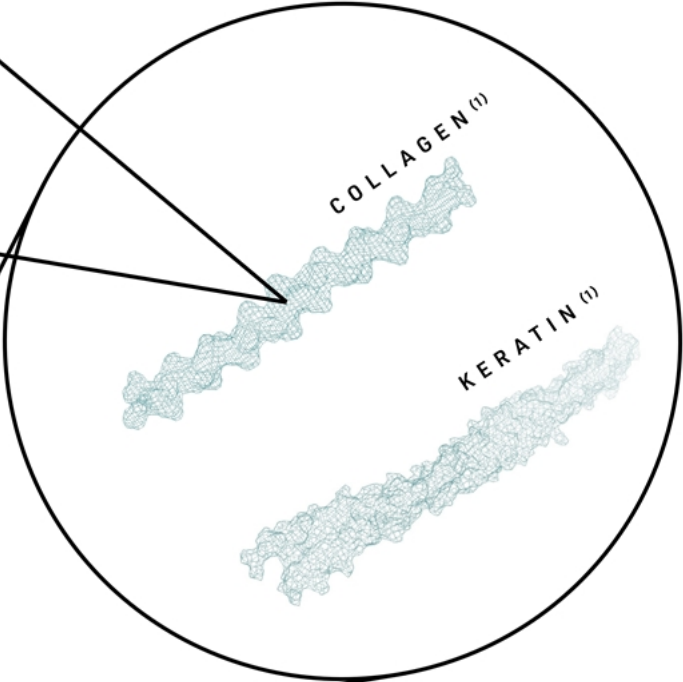


We design codebase when working on programs

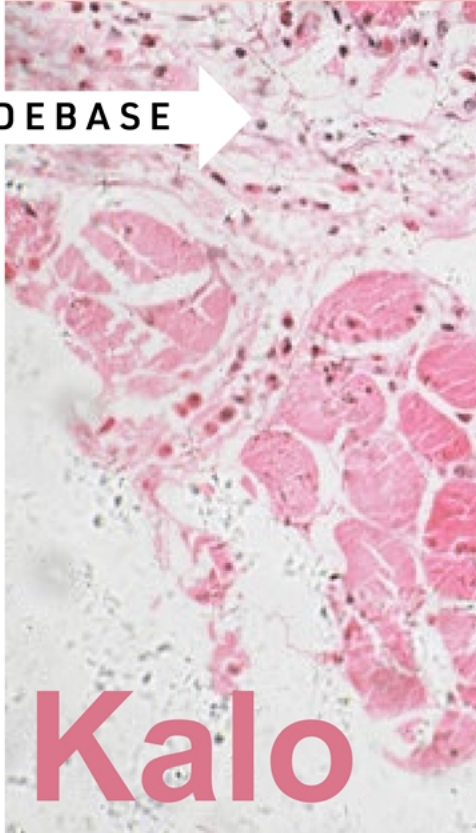


(1) Note targets are illustrative as Motif has not announced specific products.

We re-use codebase across programs to improve outcomes and efficiency



The **SAME YEAST** used to generate proteins for food can produce proteins used in personal care products, such as collagen, elastin, and keratin

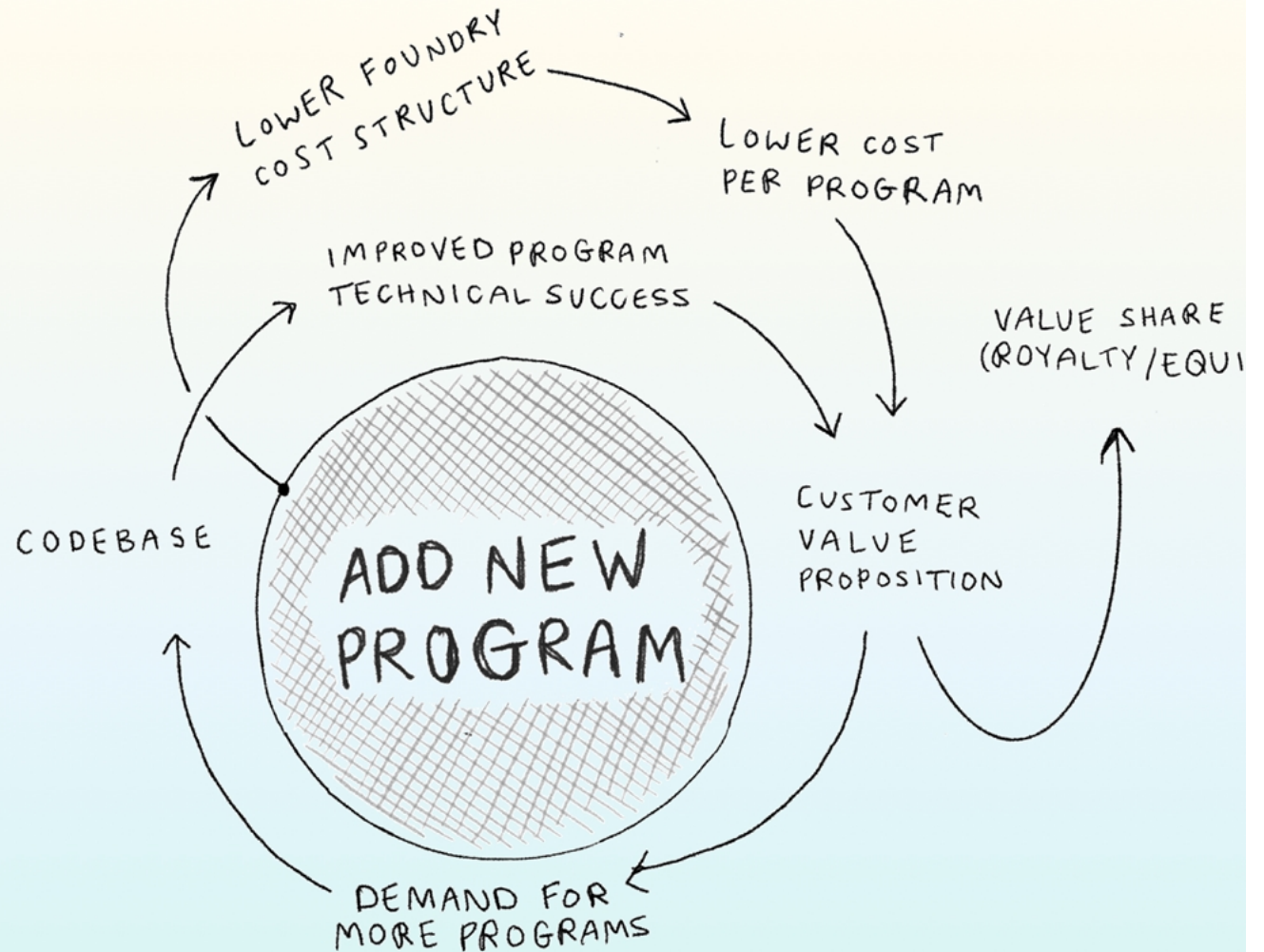


CODEBASE →

Kalo

(1) Note targets are illustrative as Kalo has not announced specific products.

Ginkgo's virtuous cycle drives platform growth



We believe...

1

Programming cells will be as impactful as programming computers

2

Ginkgo's platform improves with scale

3

Ginkgo is becoming the industry standard

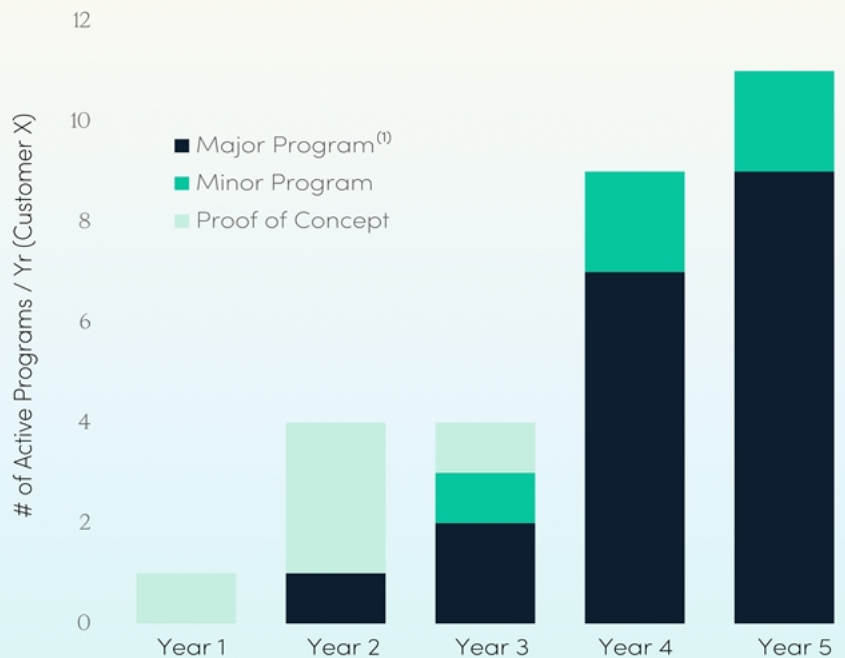
We believe Ginkgo's ecosystem of services will make us the obvious partner in the enormous, and largely untapped, market for cell programming.

4

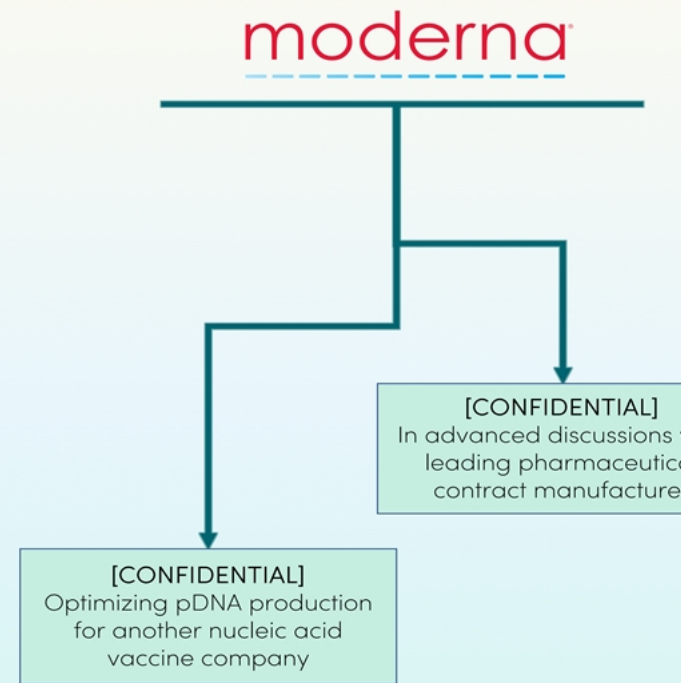
Our v
with e
adde

Each new cell program can accelerate adoption within new markets and lead to further sales with existing customers

Ability to grow significantly within existing customer accounts



Early proof points within an industry can lead to follow-on demand



(1) Major programs typically incur well over \$500K of annual R&D spending, minor programs are typically smaller add-on programs that have less than \$500K of annual R&D spend, proof-of-concept programs are typically small programs that are often set up as a business development effort

Strong 2021 sales pipeline with mix of new customers and expanded relationships

[CONFIDENTIAL]

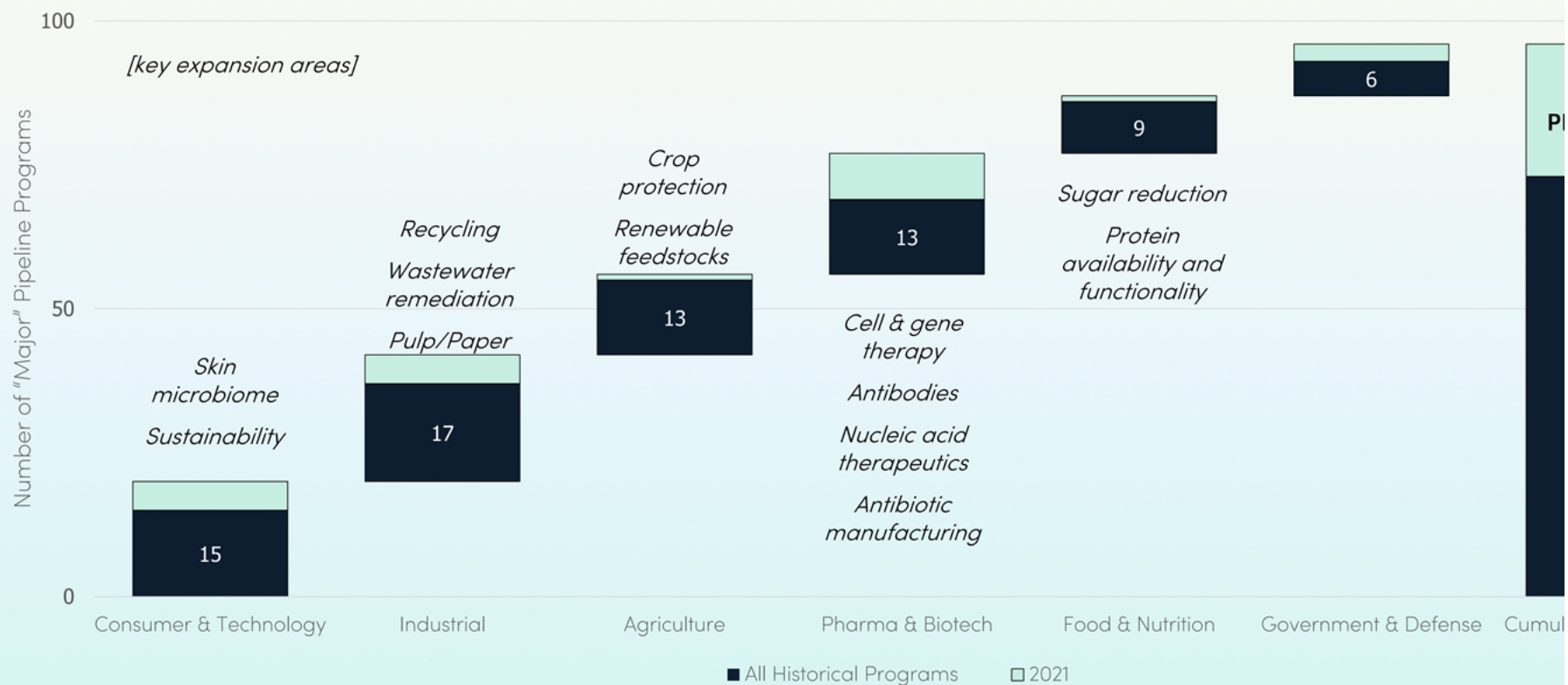


Kal

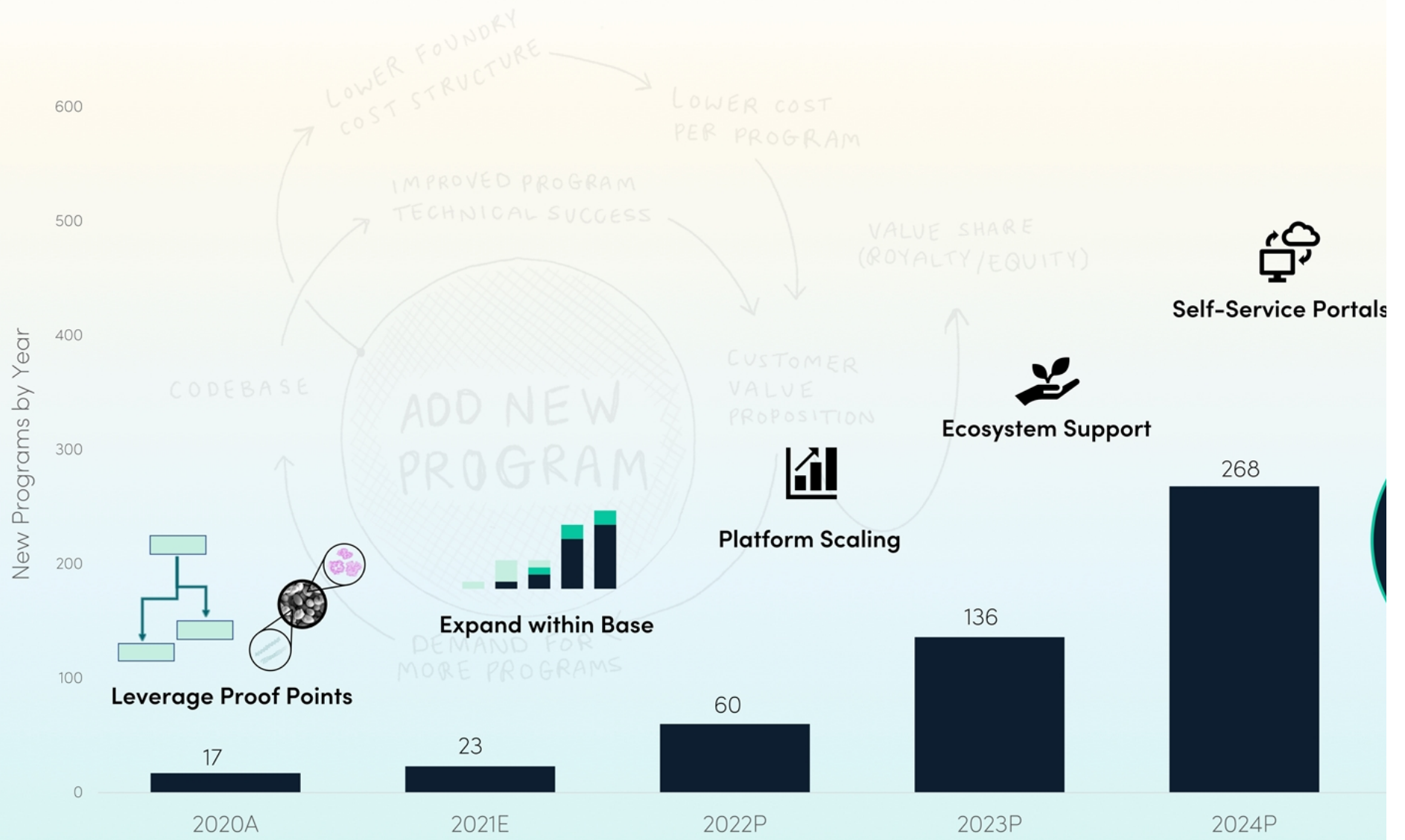
New multi-product collaboration with top global flavors & fragrances customer, building on successful historical program execution

New relationship with top 5 agchem company, focused on discovery and development of crop protection agents

Launched a new spin-care space, with strategic investor



Our ecosystem will soon support hundreds of new cell programs



(1) Source: Piper Sandler Research; assumes each program is approximately \$2M per year of cell engineering spend and growth estimate of 0% and 20%

Ginkgo is creating the industry standard ecosystem

Like other horizontal tech platforms, Ginkgo is building a strong developer community - wrapping services around the platform to drive industry growth and, ultimately, demand

Launched Ginkgo Ferment, our annual conference, in 2018



Other leading developer conferences



We will be greatly expanding our ecosystem of services for cell programmers running on the Ginkgo platform

Mature manufacturing network across industries w/ clean tech-transfer protocols

MANUFACTURING

Open-source bioengineering tools

Help drive legislative change for novel categories

REGULATORY

Help clients file patents / protect IP



Ginkgo annual developer conference and product showcase

COMMUNITY



PARTNERS

So
tech
partne
acqui



CAPITAL

Capital Access + Foundry Credits

Ferment Consortium



GINKGO BIOWORKS

THE ORGANISM COMPANY

TRUS

I
GM

We believe...

1

Programming cells
will be as impactful
as programming
computers

2

Ginkgo's platform
improves with scale

3

Ginkgo is becoming
the industry standard

4

Our value
with e
added

Each ne
predict
revenue
and pro
upside
share.

Programs drive both predictable near-term revenues and long-term value creation with asymmetric upside potential

Foundry

Upfront payments to cover R&D costs for customer programs

Foundry



Highly predictable revenue stream independent of program success



Downstream Value

Value sharing via customer equity royalties on completed programs

Royalty Stream



Cash flows from value share are typically 100% cash as Ginkgo incurs minimal ongoing support costs

The choice to structure downstream economic equity is typically based on customer program success

Note: Illustrative economics; variation exists between programs

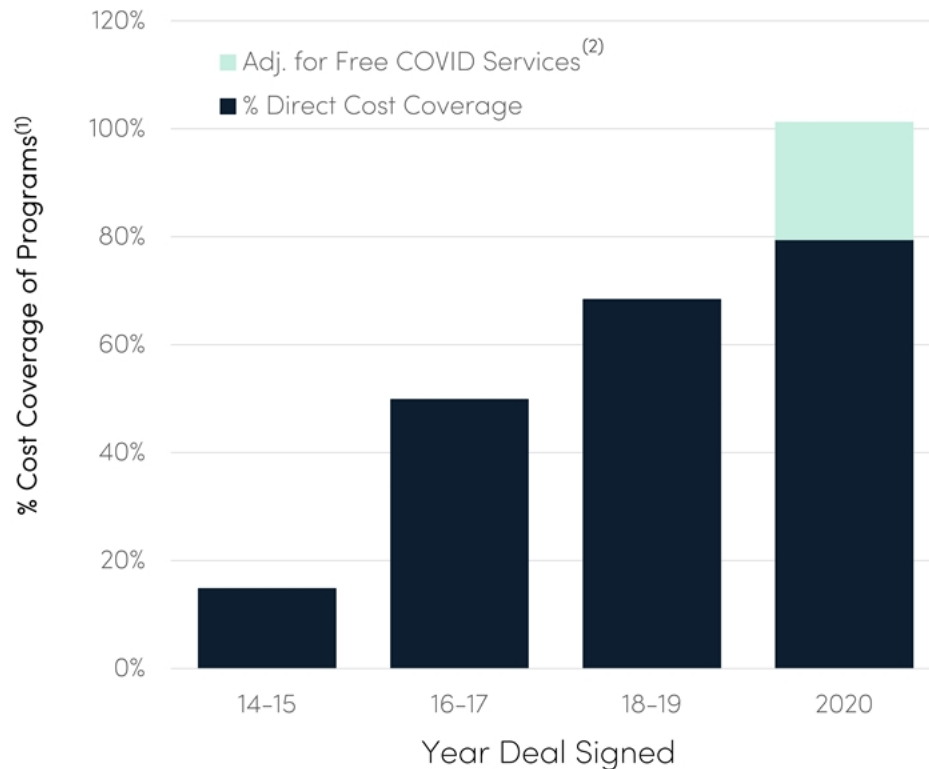
Program unit economics are strong and improving

Foundry

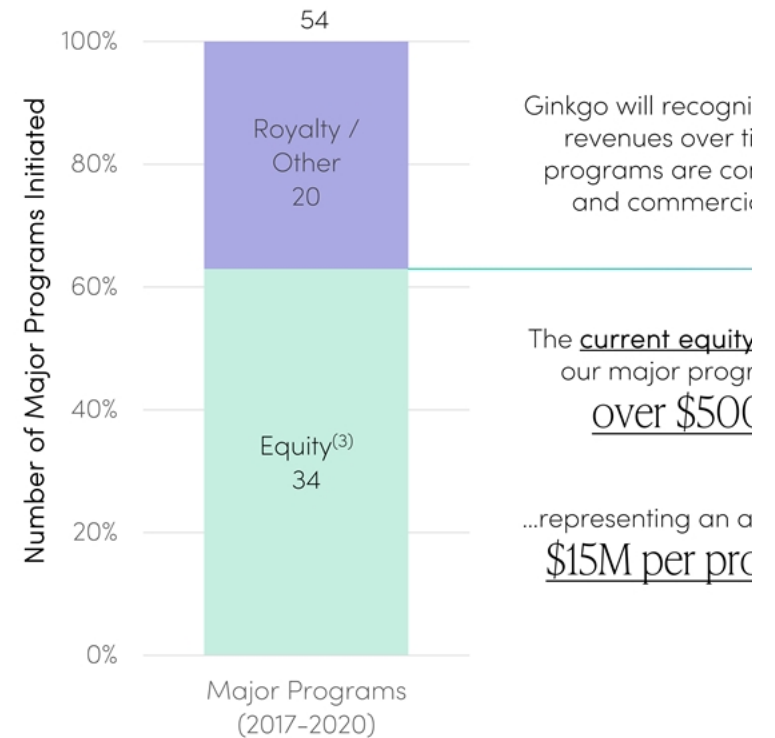


Downstream Value

Ginkgo has steadily increased the portion of program R&D costs that are covered upfront by customers



Ginkgo receives downstream value in multiple ways. The number of major programs initiated provides context for this value.



Ginkgo will recognize revenues over time as programs are commercialized and commercialized.

The current equity of our major programs is over \$500M.

...representing an average of \$15M per program.

(1) Represents cumulative revenues from 2017-2020 for programs signed in the relevant year(s) divided by the total program expenses in 2017-2020

(2) Adjusts out expenses associated with programs Ginkgo performed under our free \$25M commitment to COVID programs in spring 2020

(3) Includes one program for publicly-traded Cronos which is structured as a lump-sum equity payment upon delivery

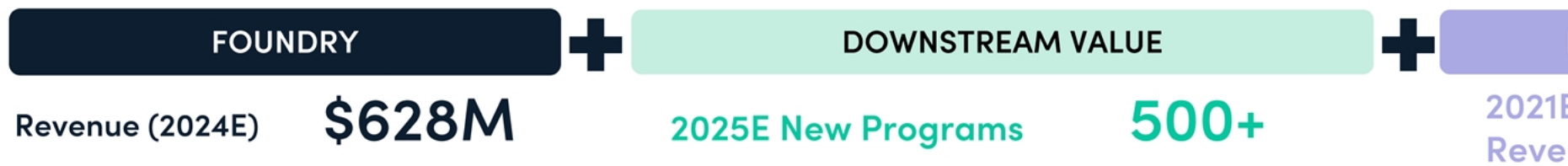
Growth in foundry revenues and new programs drives valuation

	Actuals			Projections		
	2018	2019	2020 ⁽¹⁾	2021	2022	2023
(\$M)						
Foundry Billable Revenue	\$30	\$54	\$64	\$100	\$175	\$341
<i>% growth</i>		78%	18%	57%	75%	95%
<i>memo: GAAP Adjustments</i>	\$3	\$0	(\$4)			
GAAP Foundry Revenue	\$33	\$54	\$59			
		2017-2020		2021	2022	2023
# New Programs	20		34	23	60	136
<i>% growth</i>	<i>Royalty</i>	54	<i>Equity</i>		157%	127%
Risk-Adjusted NPV / Program			~\$15M ⁽²⁾	<i>Increases if: p(success) increases, value of p</i> <i>Decreases if: lower take rates, value of pr</i>		
NPV of New Programs Signed			~\$500M ⁽²⁾	# New Programs × NPV / F		

(1) 2020A financials are draft audited and subject to final adjustments and line-item classifications

(2) Based on management estimate of the average current equity value of our cumulative major programs from 2017 to 2020

These value streams support a strong valuation with meaningful upside pot



Rev. Growth (21-24E) **84%**

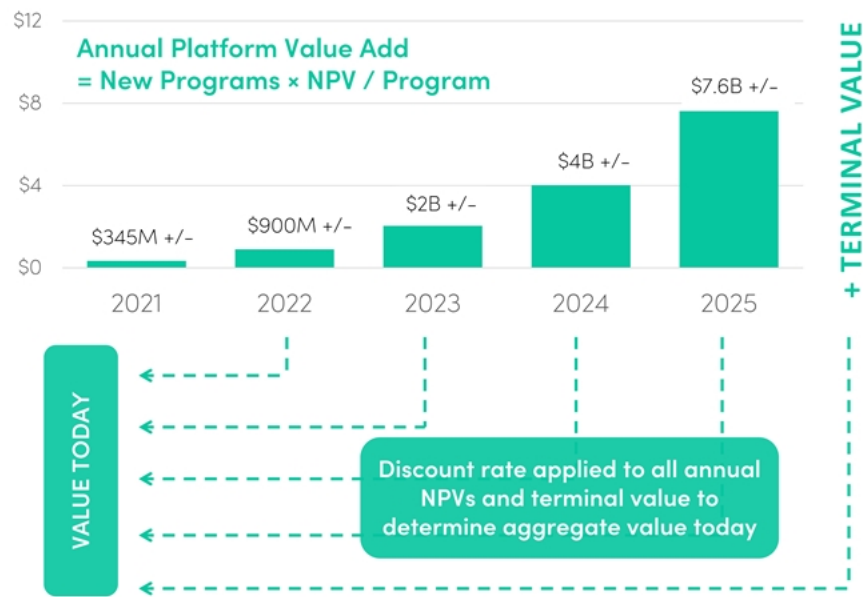
Growth Life Science Tools Multiples

18.7x
Median 2024 Revenue Multiple⁽¹⁾

Growth Tech Platform Multiples

16.6x
Median 2024 Revenue Multiple⁽¹⁾

*Biosecurity
governance
pandemic
bioscience*



*For exc
manufac
enzyme
signific*

Illustrative Valuation

17.5x 2024E Revenue
\$628M 2024E Revenue

\$11B

Illustrative Valuation

Higher Discount Rate vs. Peers: 20%
Conservative Terminal Growth Rate: 5%
No Improvements to Historical NPV/Program: \$15M

\$25B

(1) Source: CapitalIQ, multiples reflect median of peer set as of 5/3/2021

Leveraging capital to build the heart of the emerging cell programming ecosystem

PLATFORM & CAPACITY

We are accelerating growth in capacity by integrating new technologies across the existing footprint, building new foundry space, and investing in software and automation to increase utilization.

We strive to be the best place for the world's top scientists, engineers, and software developers to build their careers

ECOSYSTEM ACCELERATION

Capital availability centers Ginkgo at the heart of the next generation of programs by providing access to Foundry credits and capital

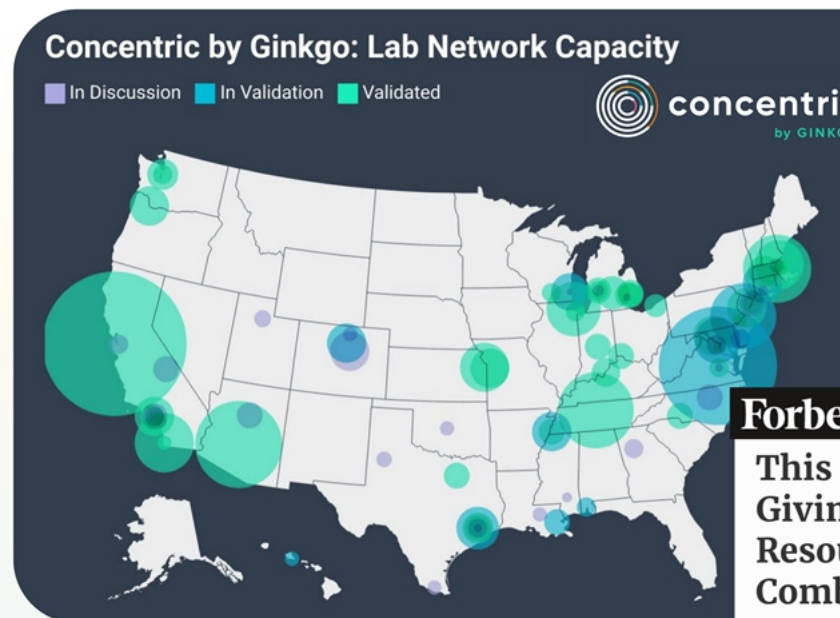
STRATEGIC ACQUISITIONS / PARTNERSHIPS

Ginkgo has successfully acquired several technology and codebase assets. We plan to continue to selectively acquire assets in strategically important areas



The most powerful technologies require the most care

Our culture is built on care, transparency, diversity, employee ownership and a deep, humble respect for biology.



We invest in our communities and their **biosecurity** as well as robust **ESG** practices.



We take care in considering which p and which we do not, and explore th biotechnologies through many four magazine: GROW

READ MORE ABOUT:

- [The meaning of nature after bio](#)
- [The legacy of eugenics in beaut](#)
- [The role of the philosopher in th](#)
- [The potential for synthetic biolo](#)
- [The impact of the pandemic on](#)

We believe...

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Programming cells
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as programming
computers

2

Ginkgo's platform
improves with scale

3

Ginkgo is becoming
the industry standard

4

Our v
with e
adde

We hope...

...that when technology meets biology,
life finds a way.

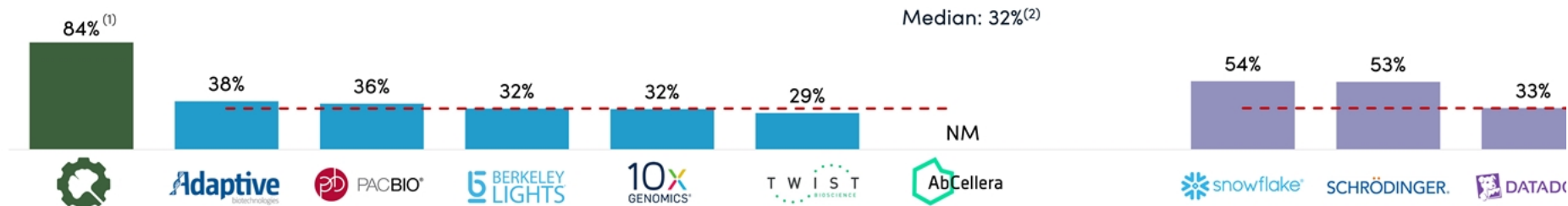




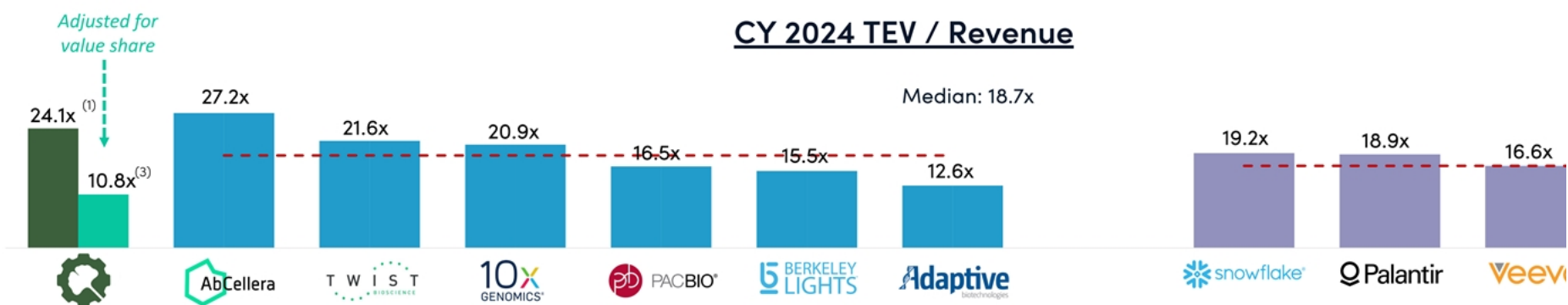
APP

Attractive entry valuation vs. peers

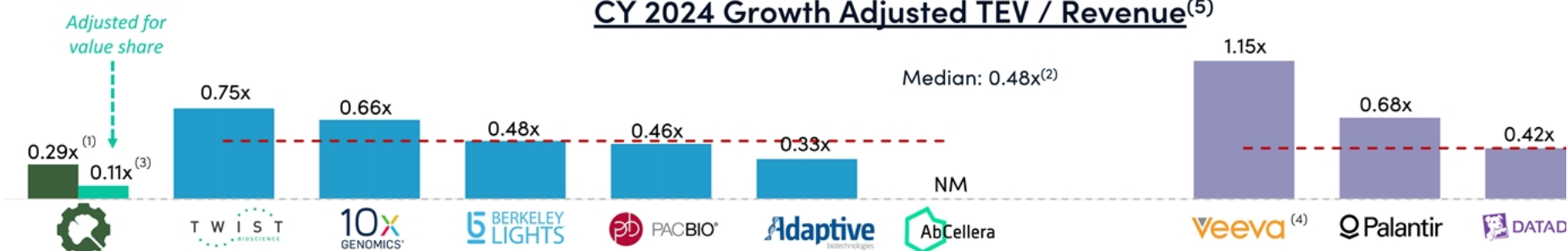
CY 2021-24E Revenue CAGR



CY 2024 TEV / Revenue



CY 2024 Growth Adjusted TEV / Revenue⁽⁵⁾



Source: Company filings and Capital IQ as of 5/3/2021

1. Includes Foundry Billable Revenues only
2. Excludes AbCellera
3. Includes Foundry Billable Revenues and one-tenth of cumulative 2017-2024 NPV from New Programs

4. Veeva CY2024 figures excludes SVB Leerink estimates

5. Calculated as CY 2024 revenue multiple divided by '21-'24 revenue CAGR

Projected P&L

(\$M)	2020 ⁽¹⁾	2021	2022	2023	2024
Foundry Billable Revenue	\$64	\$100	\$175	\$341	\$628
<i>% growth</i>	<i>18%</i>	<i>57%</i>	<i>75%</i>	<i>95%</i>	<i>84%</i>
<i>memo: GAAP Adjustments</i>	<i>(\$4)</i>	<i>GAAP adjustments not projected</i>			
Foundry Revenue (GAAP)	\$59	\$100	\$175	\$341	\$628
<i>(+) Biosecurity</i>	<i>\$17</i>	<i>\$50</i>	<i>Emerging business, projections not p</i>		
Total GAAP Revenue	\$77	\$150	\$175	\$341	\$628
Adjusted EBITDA⁽²⁾	(\$123)	(\$157)	(\$156)	(\$136)	(\$47)
Capital Expenditures⁽³⁾	(\$72)	(\$66)	(\$118)	(\$146)	(\$193)

(1) 2020A financials are draft audited and subject to final adjustments and line item classifications

(2) See slide 50 for a reconciliation of Net Income to Adjusted EBITDA for historical periods presented

(3) 2020 CapEx of \$72M includes \$14M of CapEx that is included in Accounts Payable and Accrued Expenses at 12/31/2020

Summary of Historical Income Statements

(\$ in M)	Year Ended December 31,	
	2019A	2020A
Revenue⁽²⁾	\$54.2	\$54.2
<i>% Growth</i>	66%	
Cost of Biosecurity product revenue	0.0	
Cost of Biosecurity service revenue	0.0	
Research & development	96.3	1
General & administrative	29.5	
Total Operating Expenses	\$125.8	\$2
Loss from Operations	(\$71.6)	(\$1)
Net interest income	3.3	
Loss on equity method investments	(46.9)	
Loss on investments	(7.8)	
Other income, net	3.2	
Loss before provision for income taxes	(\$119.8)	(\$1)
Provision for income taxes	0.0	
Net Loss and Comprehensive Loss	(\$119.9)	(\$1)
(Loss) / Income attributable to NCI	(0.5)	
Net Loss Attributable to Ginkgo	(\$119.3)	(\$1)

(1) 2020A draft audited financials subject to final adjustments and line item classifications.

(2) GAAP revenue includes transactions with platform ventures (Motif, Joyn, and Allonnia) as well as other structured partnerships (Genomatica and Synlogic) where, as part of these transactions, Ginkgo received an equity investee position. These equity investees are considered related parties due to the equity position Ginkgo received in these entities and generated total revenues of \$42.5M and \$35.3M in 2020 and 2019, respectively.

Historical Net Loss to Adjusted EBITDA Reconciliation

(\$ in M)	Year Ended December 31
	2019A
Net Loss Attributable to Ginkgo	(\$119.3)
Net interest income	(3.3)
Depreciation and amortization	10.8
Loss attributable to equity method investments, net of NCI	46.4
Loss on investments	7.8
Provision for income taxes	0.0
Stock compensation expense	0.8
Other non-recurring transactions	(3.1)
Adjusted EBITDA	(\$60.0)

(1) 2020A draft audited financials subject to final adjustments and line item classifications.

Historical Foundry GAAP to Billable Revenue Reconciliation

(\$ in M)	Year Ended December 31,
	2019A
Foundry Revenue (GAAP)	\$54.2
<i>% Growth</i>	<i>66%</i>
Synlogic Adjustment ⁽²⁾	2.7
Equity Investee Adjustment ⁽³⁾	(3.2)
Total Adjustments	(\$0.4)
Foundry Billable Revenue	\$53.7
<i>% Growth</i>	<i>78%</i>

(1) 2020A draft audited financials subject to final adjustments and line item classifications.

(2) Adjustment to increase Foundry Billable Revenue for the value of services provided to Synlogic which are not reported under GAAP due to an attribution of the amount paid above fair value for the Synlogic equity to the services prepayment at the time of the investment.

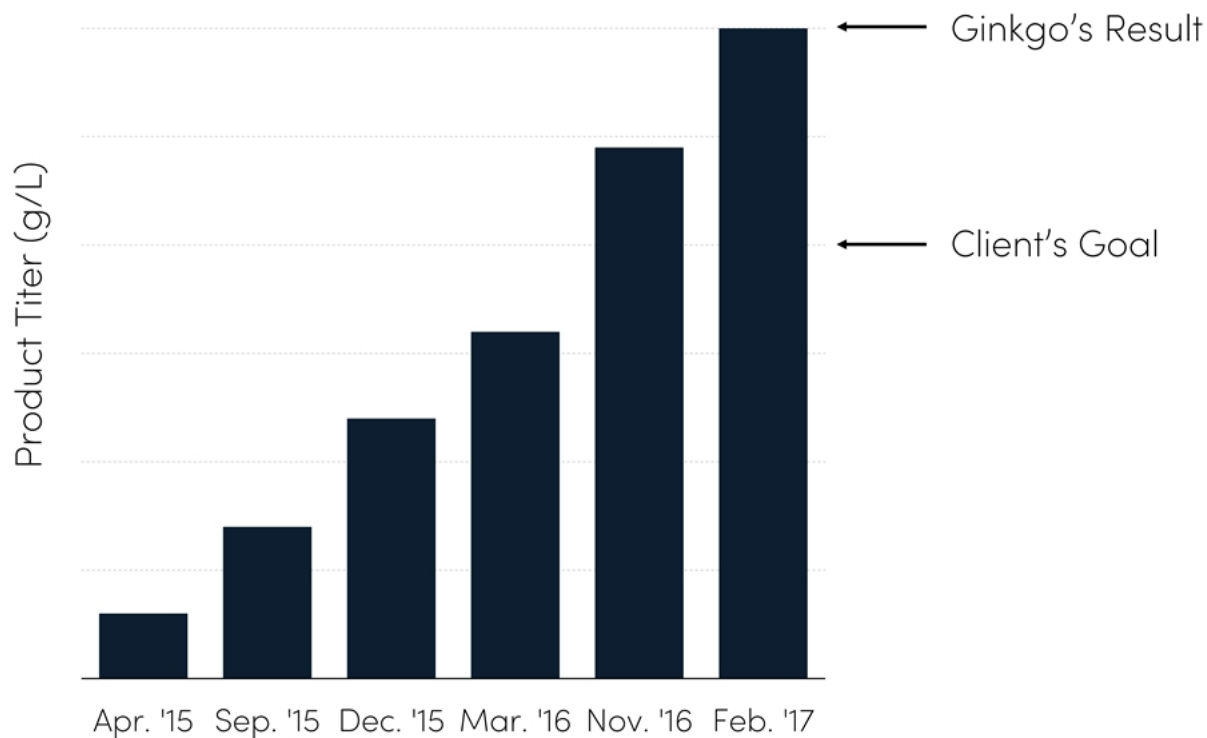
(3) Adjustment to decrease Foundry Billable Revenue for non-cash revenue that is recognized under GAAP to account for equity received at the time of inception of the collaboration.

**ADDITIONAL
CASE
STUDIES**



Producing cultured ingredients at scale

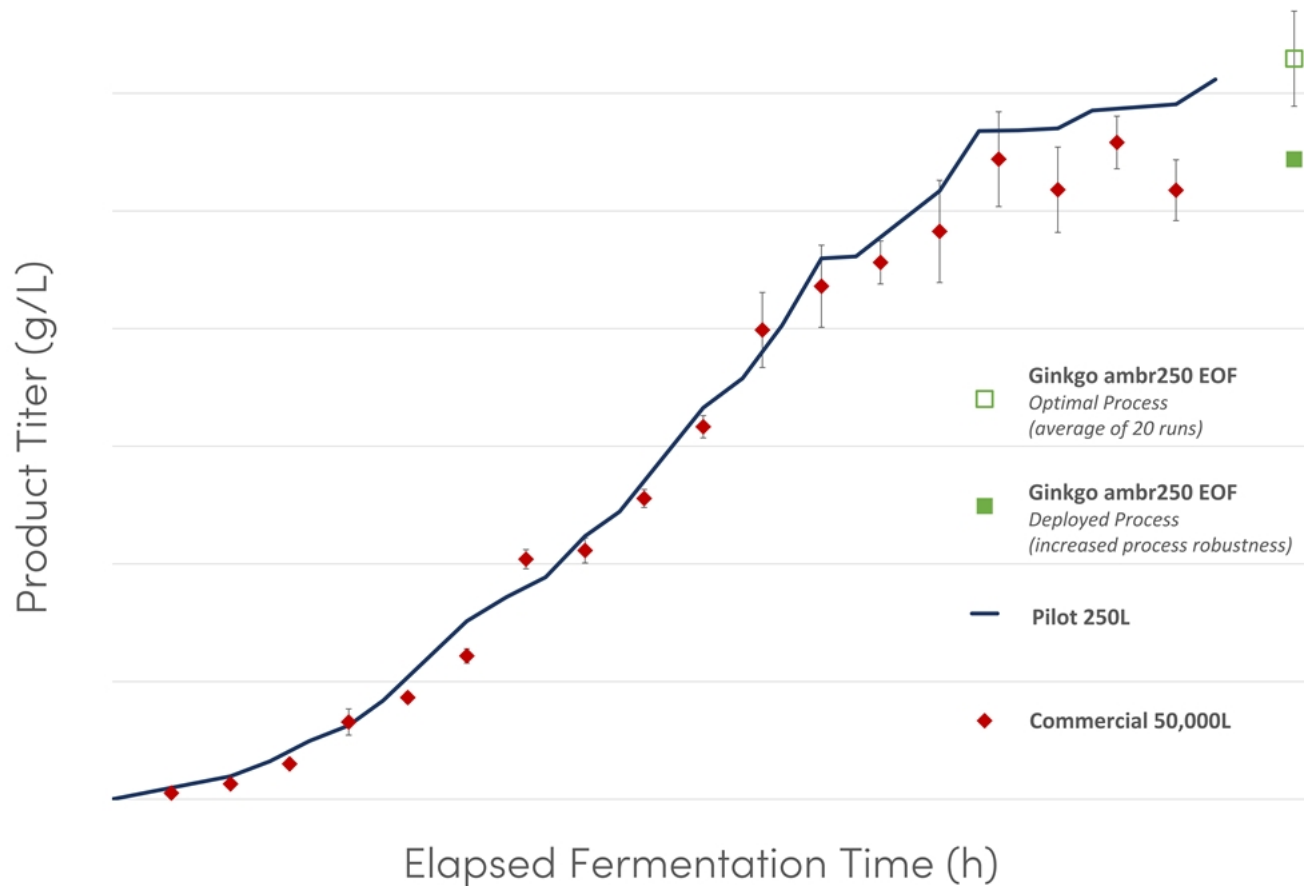
A leading company for prod ingredients was looking for opportunities. Ginkgo identified fine-tune existing pathways produce multiple flavors more then optimized the condition



Ginkgo's Foundry utilizes the reactor system to inform des and reduce operating costs allowing us to **run hundreds simultaneously.**

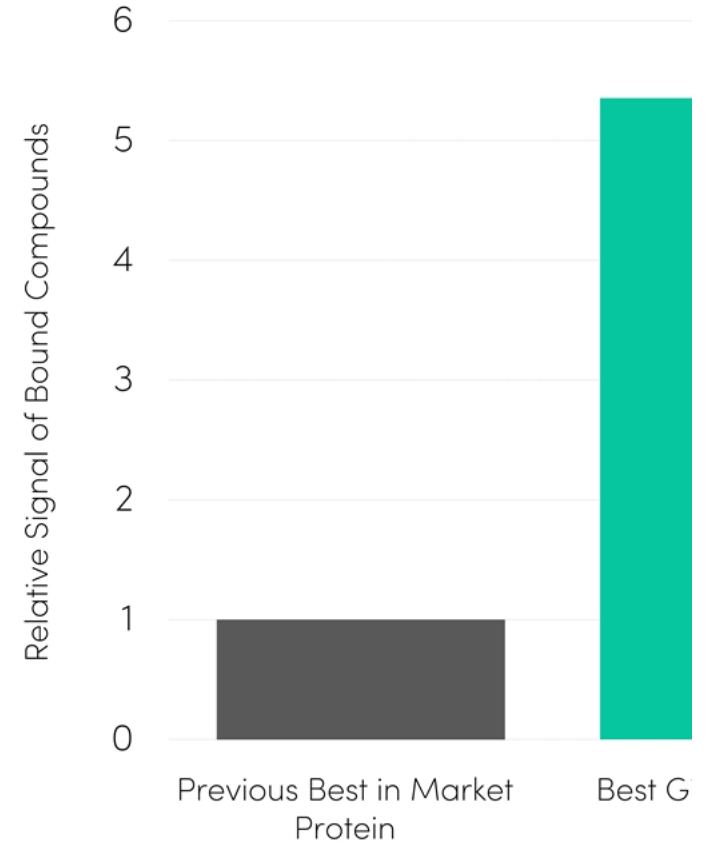
Using the information generc improve the strain and ferme conditions, **Ginkgo exceeded product titer by 50%.**

Producing cultured ingredients at scale



Using biomining techniques to recycle compounds

Some of the compounds in objects we use everyday are difficult to recycle. By identifying proteins that selectively bind to these compounds, we can recover them from post-manufacturing or recycled material, moving us closer to a circular economy.



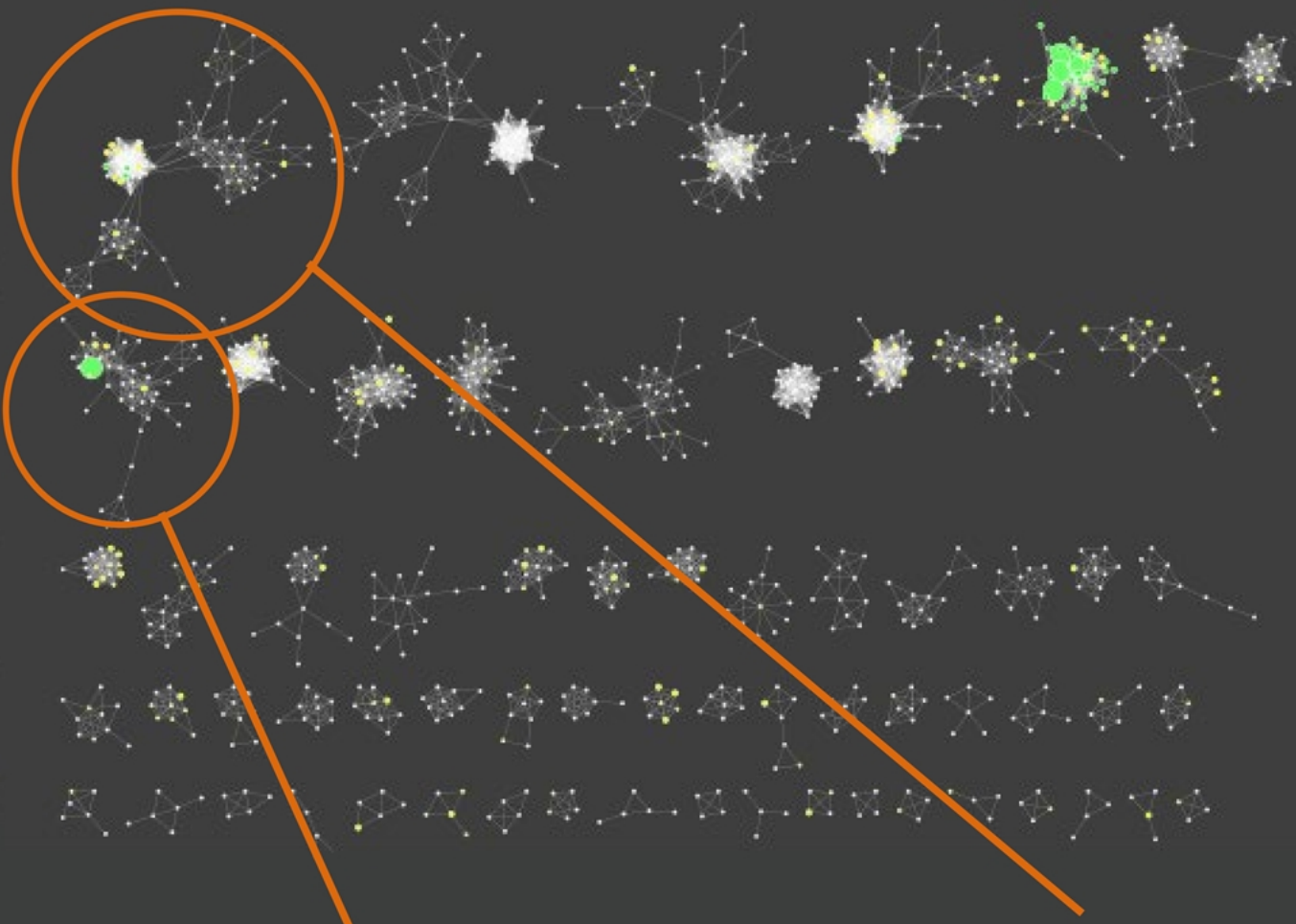
The Ginkgo Foundry allows us to synthesize, & these proteins at a scale unmatched by other screen, we **screened over 1000 unique prote over 10,000 samples.**

From that screen, we identified the best hits. I screen, we discovered a protein that binds to compounds **5X** more than previously seen in

Foundries allow explore a broad biological divers

Enzymes come from
of source organisms

Powered by gigabas
synthesis, Ginkgo exp
biodiversity to identif
improved enzyme ac
design pathways pro



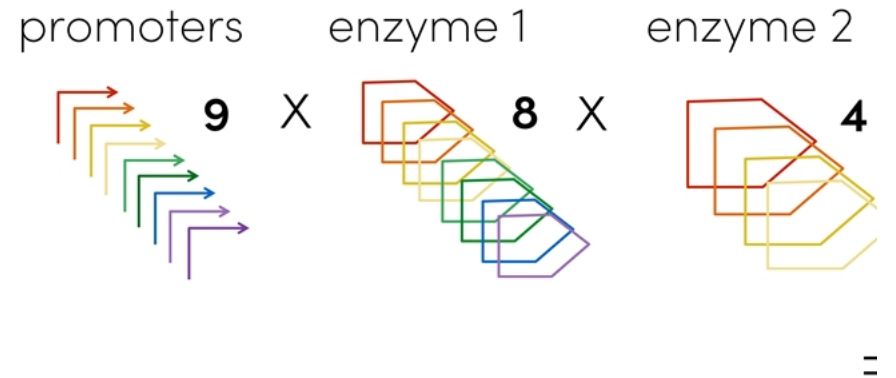
Clusters of enzymes without any
existing annotation, which Ginkgo
can investigate further

Cluster containing best-
documented enzymes
for this class

Pathway design for a complex metabolic pathway

Situation: A client wished to decrease their reliance on expensive feedstocks and replace it with a low-cost substrate that the strain could not naturally assimilate. Ginkgo engineered a strain to assimilate the low-cost substrate, while maintaining productivity and yield.

Approach: By capitalizing on the capacity of Ginkgo could screen a large number of path architectures to construct the pathway.



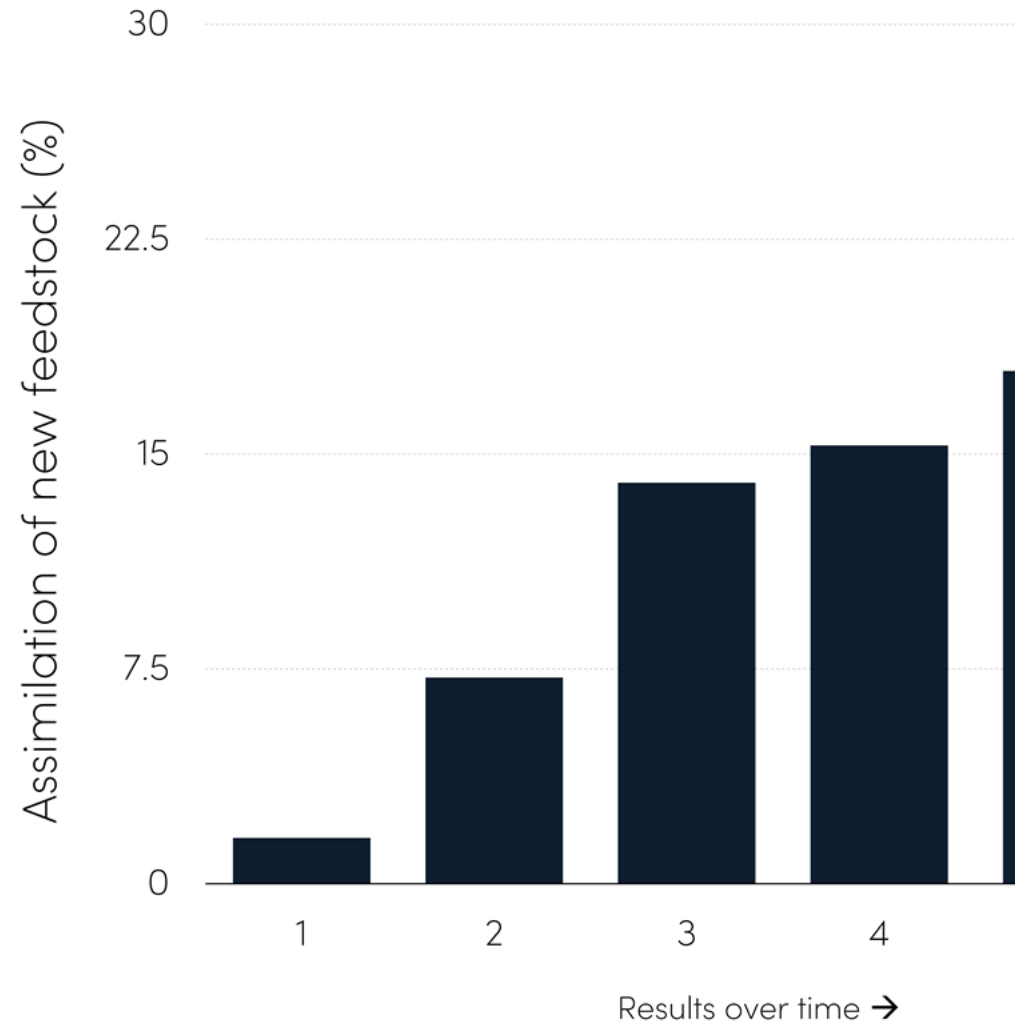
2,719 PATHWAYS EVALUATED

7,717 ENZ

109,000,000 BASE PAIRS OF
SYNTHETIC DNA DESIGNED

Pathway design for a complex metabolic pathway

The strains transferred to the customer could assimilate the new feedstock **25 times** more than the original strain, achieving the target.



Making more sustainable foods with kilogram-scale protein production

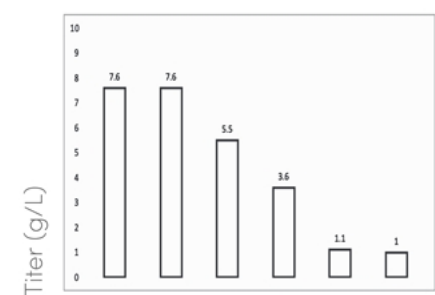
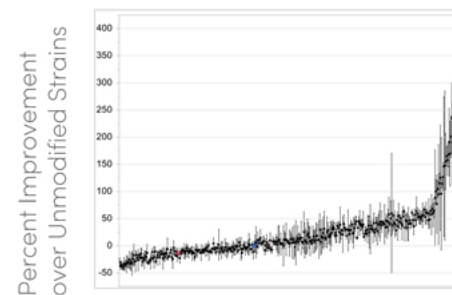
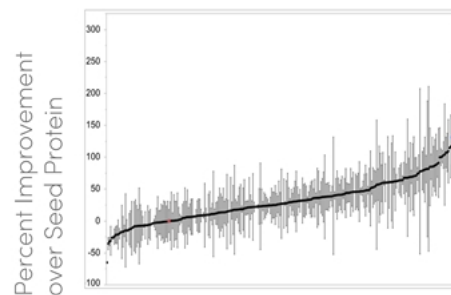
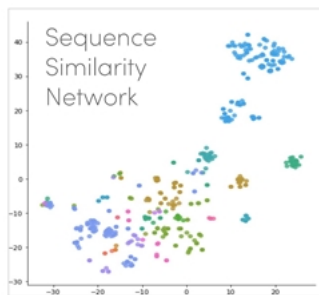
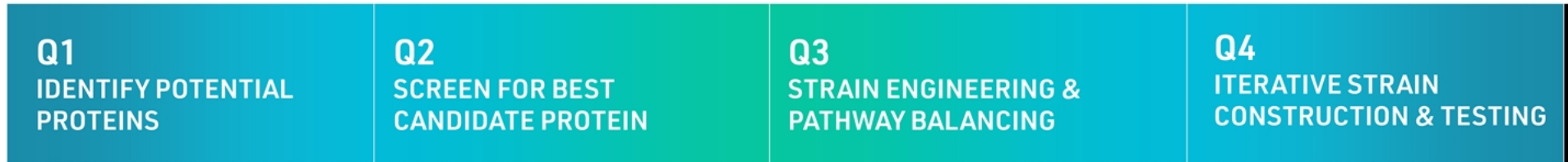


Situation: Ginkgo partnered with FoodWorks to develop commercial processes for protein production at kilogram scale. The target protein is to make foods **more delicious and**

Making more sustainable foods with kilogram-scale protein production

Discovery: Leveraging our Codebase and Foundry, we identified and screened hundreds of distinct candidate proteins. Top performers were engineered with novel expression systems to maximize protein expression.

In just 1 year, 6 prototype strains were developed, and product samples were produced for early application testing. Improved variants were designed, built and validated over the next



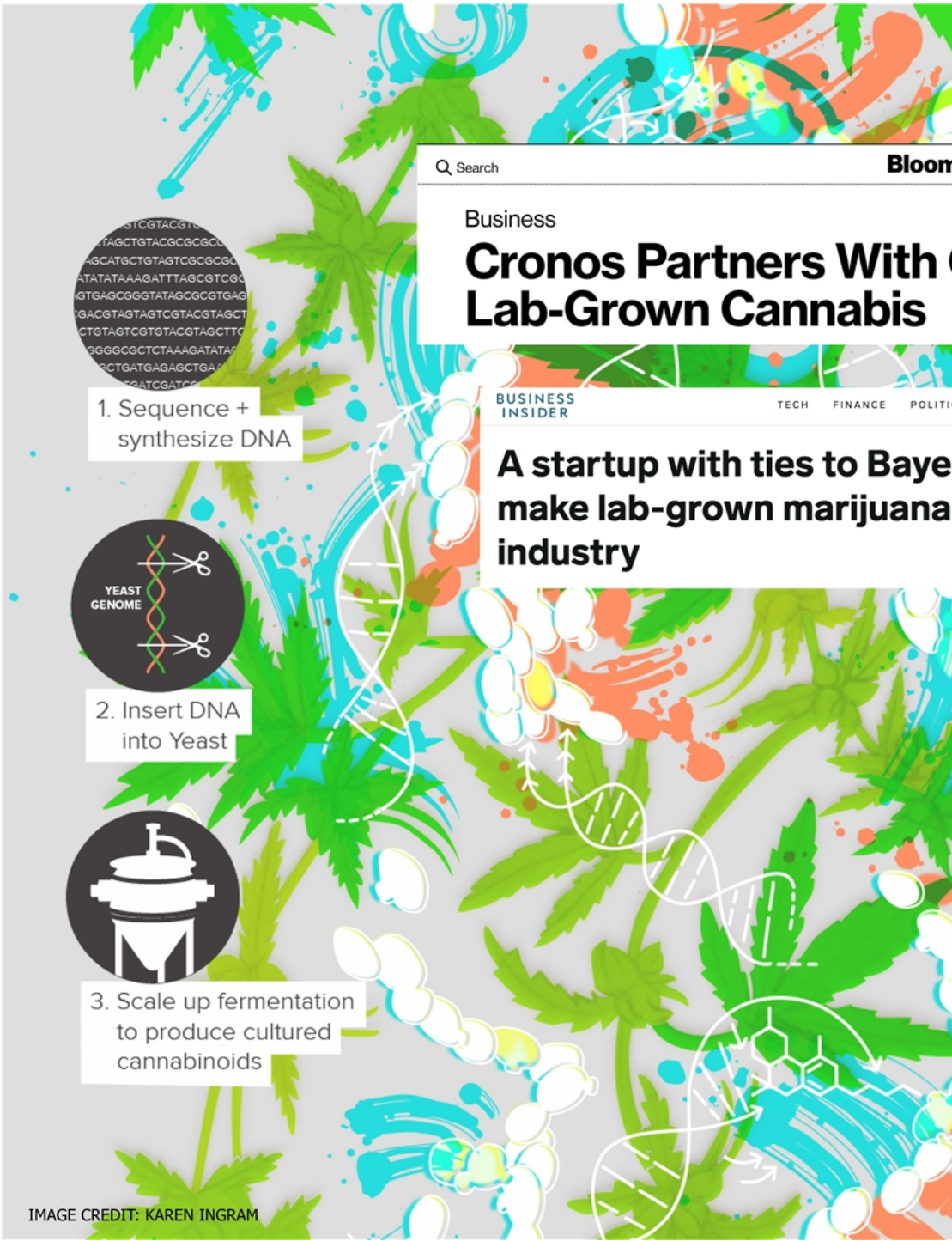
Making more sustainable foods with kilogram-scale protein production

Scale: Within 2 years, Ginkgo developed commercial strains from scratch, as well as **fermentation downstream purification processes that are now being used at kilogram-scale**, with a total 2 years time-to-market for the final food ingredient product.

The strain's performance exceeded Motif's specifications by >70%.

Further, we identified a set of novel protein expression systems that exceed performance of benchmark systems by 5-20 fold, thereby increasing productivity, reducing cost, and improving scalability, without the need for additional rounds of engineering.

OUR FOUNDRY can be easily repurposed to create **additional food products**, thereby shortening the time-to-market for each new product, and helping us **forge the future with more sustainable and accessible foods.**



Q Search

Bloomberg

Business

Cronos Partners With Ginkgo to Develop Lab-Grown Cannabis

BUSINESS INSIDER

TECH FINANCE POLITICS STRATEGY LIFE INTELLIGENCE ALL

Q

A startup with ties to Bayer has inked a \$122 million deal to make lab-grown marijuana — and it's eyeing the pharma industry

Pro
cult
can

Plants like cannabis hold many uni that can have important health be of those compounds are impractic to extract and purify. With our land with Cronos Group, we are working target cultured cannabinoids at hig purity. **To scale manufacturing of partnership, our deployment team evaluation and build-out of an 84, fermentation facility in Winnipeg,**

C



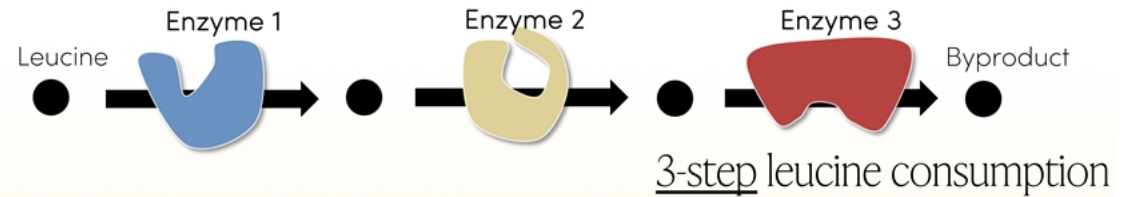
Engineering living medicines

Situation: For approximately 2 years we had been prototyping a strain that was unable to consume leucine, but initial models showed that more activity was needed for a therapeutic effect.

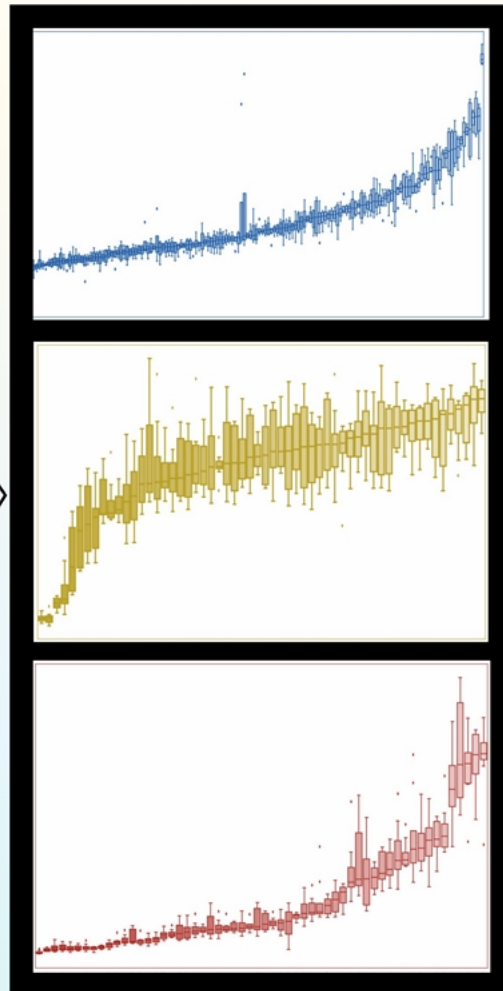
Approach: To optimize the component, we increased consumption, **Ginkgo** so we **synthesized and screened 3,600** pathways to identify the best performing enzymes. To find the best enzymes, we designed and screened a combinatorial library of 350 pathways.

HIGH THROUGHPUT SCREENING OF PATHWAYS + PERFORMANCE

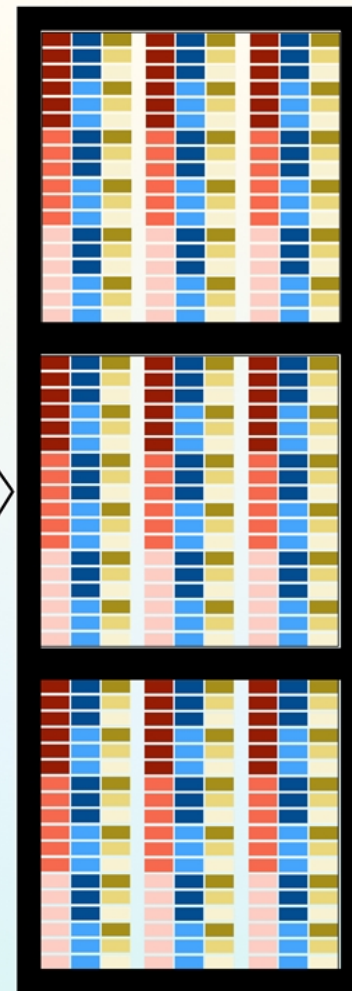
Rapid pathway development



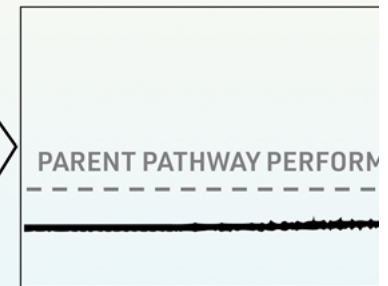
Metagenomic enzyme sourcing and synthesis



High throughput screening of >1200 enzymes per class



Use top enzymes to design combinatorial library of 350 pathways

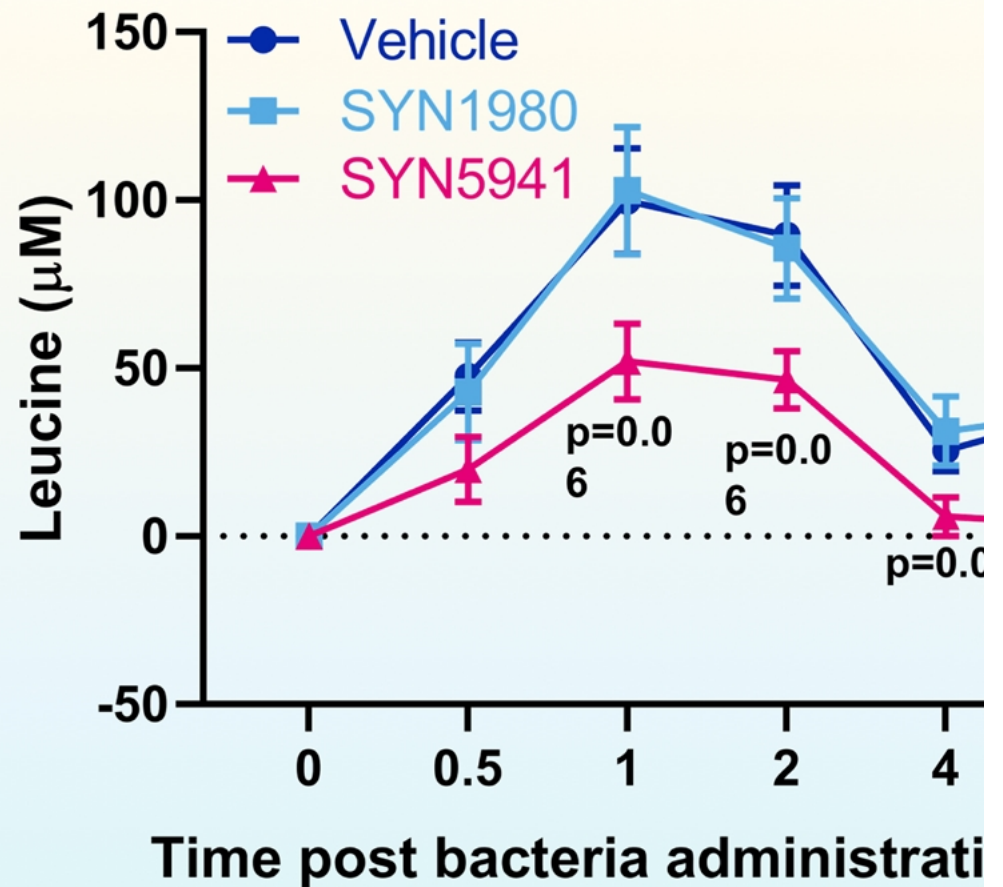


High-throughput pathways using metabolomics

Engineering living medicines

With a simpler biological design, Ginkgo improved the Synlogic strain's ability to consume leucine by nearly **7x**.

Furthermore, the Synlogic-Ginkgo optimized strain SYN5941 lowers protein-induced leucine consumption in non-human primates.



Leveraging scale to optimize enzyme activity

CASE STUDY

Our client was seeking an enzyme that could enhance an underperforming, in-house program in the industrials space

Ginkgo created a diverse library of 1,700+ enzyme variants, informed by our Codebase

IMPACT

Our program reduced enzyme requirement by 80% and improved performance

Without Ginkgo's capacity for testing or broad Codebase, the best enzyme **wouldn't likely have been discovered or selected for testing**

