



Writing the Future

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This presentation contains forward-looking statements. In particular, statements regarding future economic performance, finances, and expectations and objectives of management constitute forward-looking statements. Forward-looking statements can be identified by the fact that they do not relate strictly to historical facts and generally contain words such as "believes," "expects," "may," "will," "should," "seeks," "approximately," "intends," "plans," "estimates," "anticipates," and other expressions that are predictions of or indicate future events and trends and that do not relate to historical matters. Although the forward-looking statements contained in this presentation are based upon information available at the time the statements are made and reflect management's good faith beliefs, forward-looking statements inherently involve known and unknown risks, uncertainties and other factors, which may cause the actual results, performance or achievements to differ materially from anticipated future results. Important factors that could cause actual results to differ materially from expectations include, among others: the risks and uncertainties of the ability to attract new customers and retain and grow sales from existing customers; risks and uncertainties of rapidly changing technologies and extensive competition in synthetic biology could make the products we are developing obsolete or non-competitive; and uncertainties of the retention of a significant customer. You should not place undue reliance on these forward-looking statements, which speak only as of the date hereof. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. Factors that may cause actual results to differ materially from any future results expressed or implied by any forward-looking statements include the risks described in the "Risk Factors" section of our Annual Report on Form 10-K for the year ended September 30, 2019, and our Quarterly Report on Form 10-Q for the three months ended December 31, 2019, as well as those set forth from time to time in our other SEC filings, available at <http://www.sec.gov>. The forward-looking statements in this presentation represent our views as of the date of this presentation. We do not undertake to update or revise any forward-looking statements after they are made, whether as a result of new information, future events, or otherwise, except as required by applicable law.

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By attending or receiving this presentation you acknowledge that you will be solely responsible for your own assessment of the market and our market position and that you will conduct your own analysis and be solely responsible for forming your own view of the potential future performance of our business.

DNA Is Changing the World

Synthetic DNA Is the Future of Everything



CHEMICALS

Sustainability



FOOD

Food Security



THERAPEUTICS

Health



DIAGNOSTICS

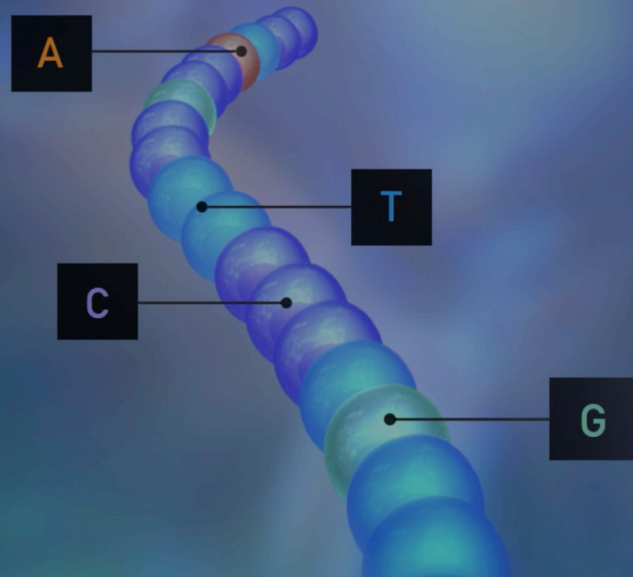
Precision Medicine



DATA STORAGE

Preserving Heritage





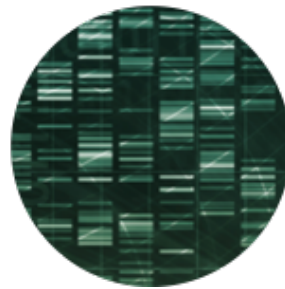
Writing the Future

Our silicon-based DNA synthesis platform is fueling a world of applications



Miniaturization

10^{3-6} less volume of required reagents



Throughput

20M oligos/month capacity



Low cost

Driving adoption



We are Building a Diverse Portfolio of Businesses



Drug
Discovery

Data
Storage

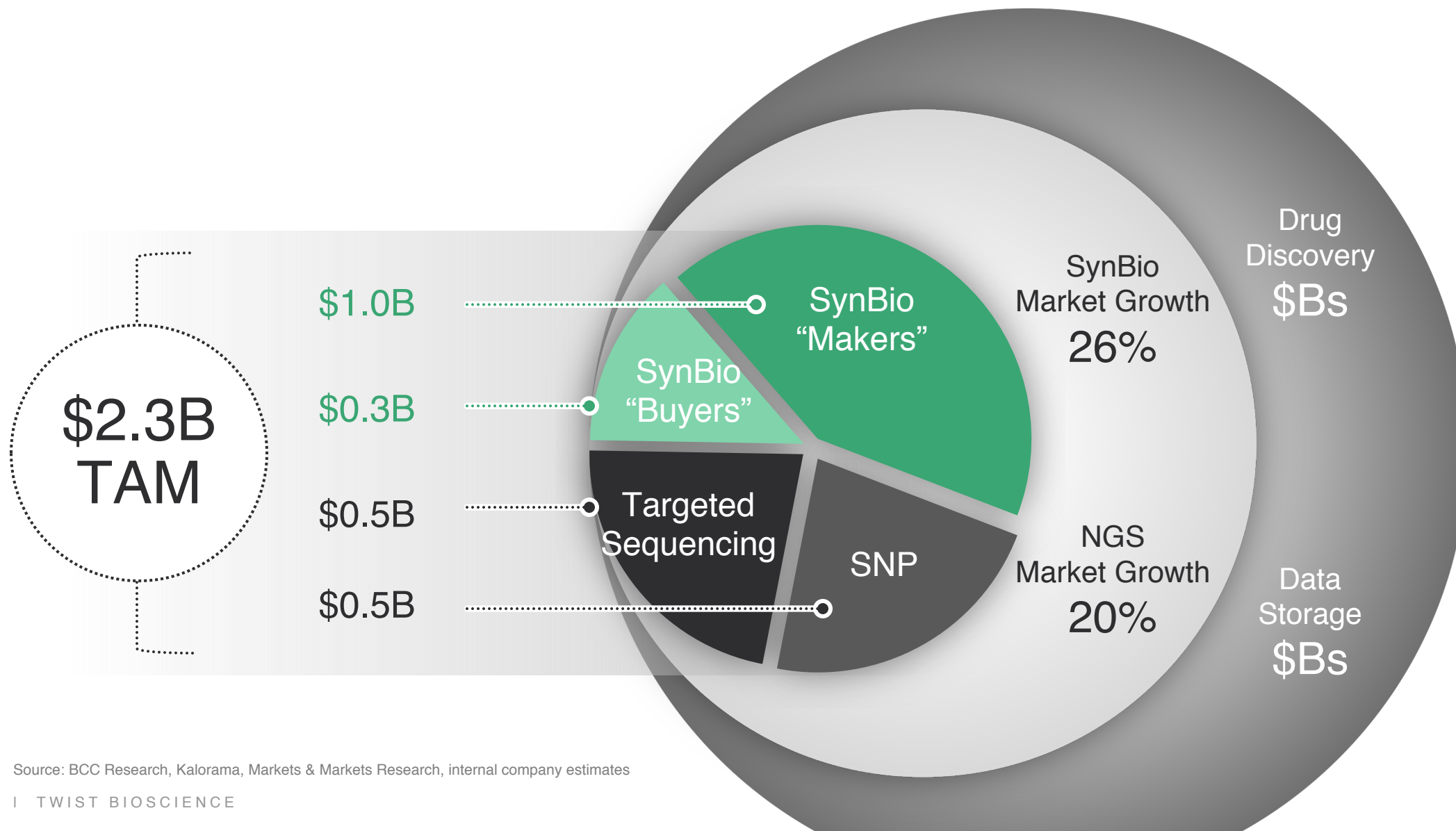
Synthetic
Biology

Next-Gen
Sequencing

**High-value
solutions**
Future upside

Tools
High-growth
revenue today

Large and Expanding Addressable Market

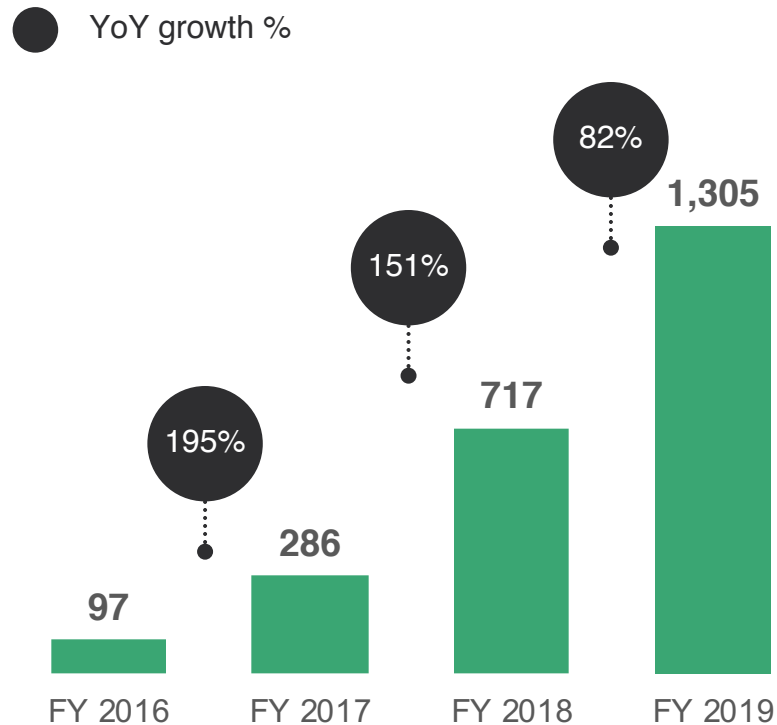


Source: BCC Research, Kalorama, Markets & Markets Research, internal company estimates

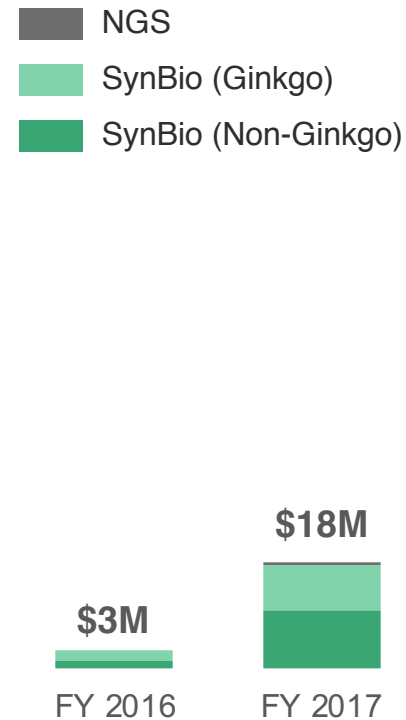
Strong Customer and Order Growth



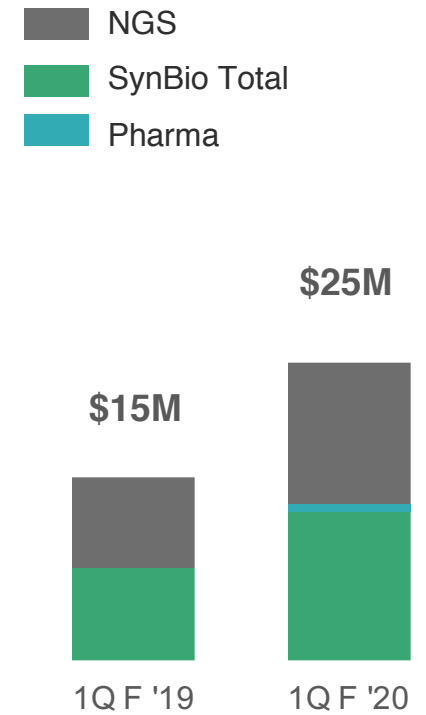
Total Customers (SynBio & NGS)



Orders



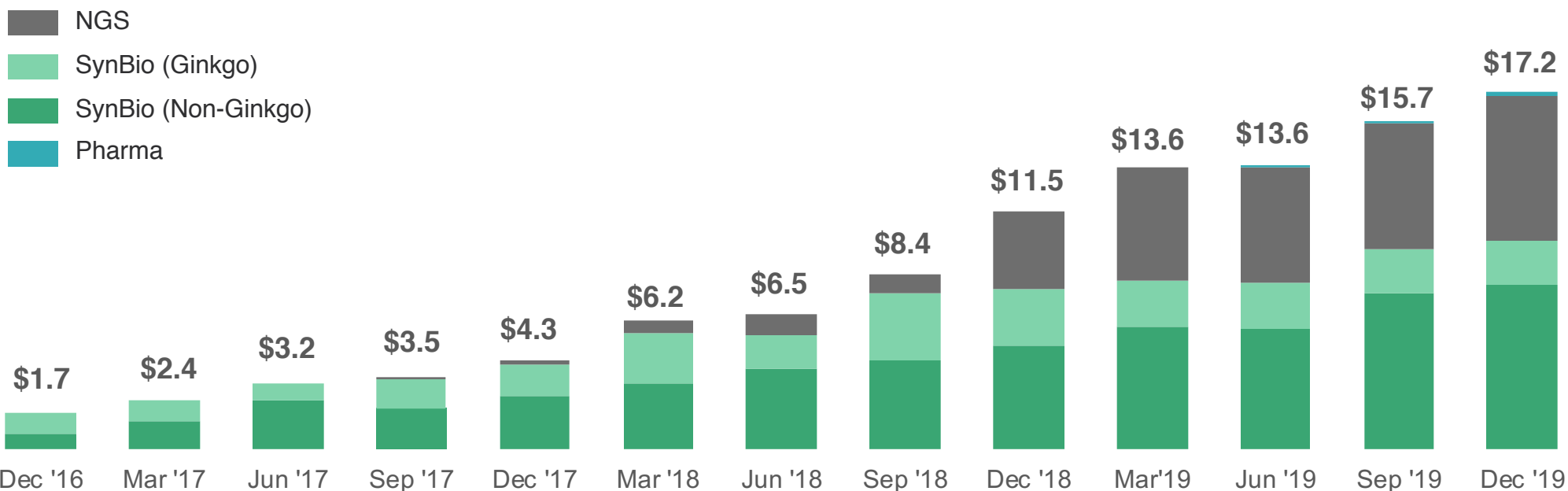
Orders



Quarterly Revenue Growth



Revenue (\$M)

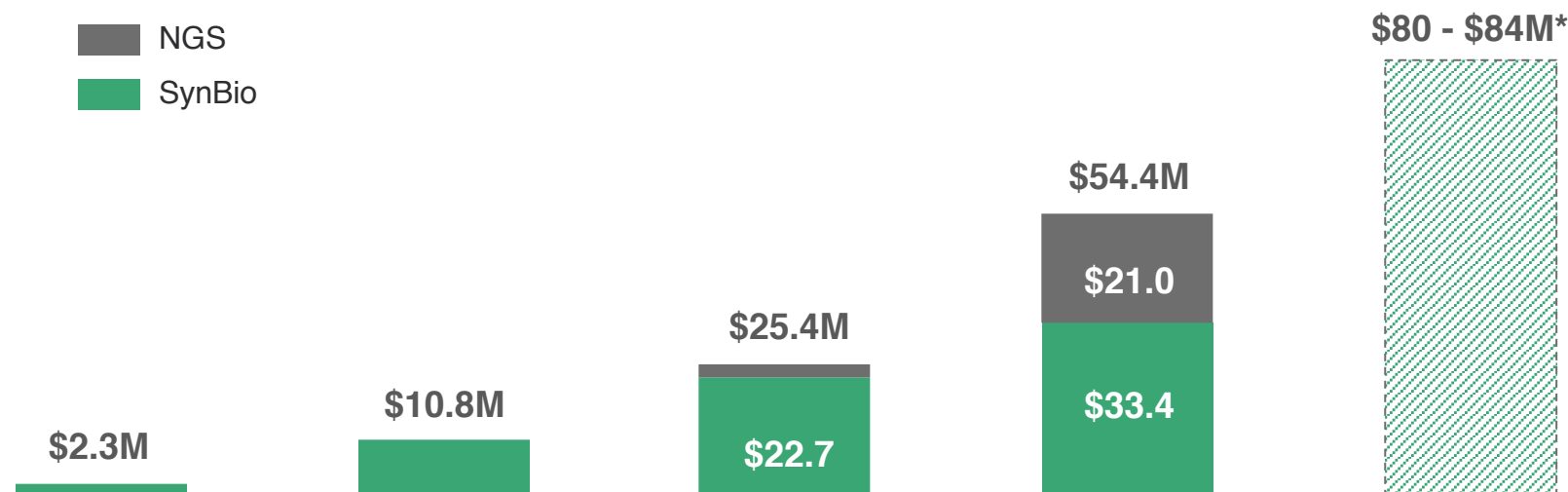


	FY 2017					FY 2018				FY 2019			1Q20
QoQ Growth	--	44%	31%	9%	24%	43%	6%	27%	37%	18%	0%	15%	10%
YoY Growth	--	--	--	--	153%	158%	106%	139%	167%	120%	109%	87%	49%

Strong Revenue Growth and Increasing Gross Margin



Revenue



	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020E*
Gross Profit (\$M)	(\$7.2)	(\$13.3)	(\$6.8)	\$7.0	—
Gross Margin %	(313%)	(123%)	(27%)	13%	32%
Net Operating Loss (\$M)	(\$43.7)	(\$58.5)	(\$70.6)	(\$108.9)	(\$107) - (\$110)

* Guidance provided on February 6, 2020. Net operating loss excludes the \$22.5mm litigation settlement. Net loss (including litigation settlement) expected in the range of \$129.5 to \$132.5 million.

DRIVERS FOR SUCCESS IN 2020



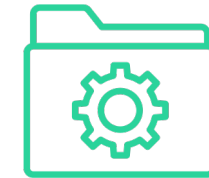
Litigation Resolved

- All claims and counterclaims resolved
- No admission of liability or wrongdoing
- Removes uncertainty and legal fees associated with this prolonged trial



Strong Financial Results and SynBio and NGS drivers

- Revenues of \$17.2M in 1Q20
- Positive gross margin of \$3.4M
- Shipped products to ~1,000 customers
- Fiscal 2020 revenue: Expected \$80M to \$84M
- SynBio: Continued diversification, new products and enhanced ecommerce
- NGS: Continued pilot, SNP conversion, products for liquid biopsy and oncology



Progress in Data Storage & Pharma Verticals

- Selected as DNA synthesis provider under IARPA
 - May receive up to \$9.5M in funding
 - Additional \$5.5M designated to bolster DNA synthesis through new chip design, commercial implementation at Twist
- Signed first biopharma collaboration of 2020 with Schrödinger, Inc.



We are Building a Diverse Portfolio of Businesses



Drug
Discovery

Data
Storage

Synthetic
Biology

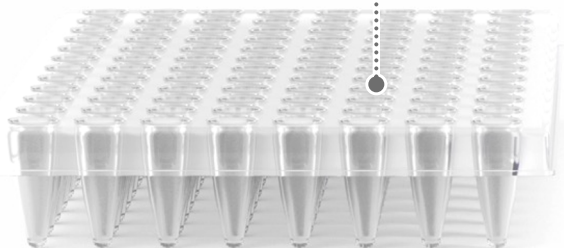
Next-Gen
Sequencing

High-value
solutions
Future upside

Tools
High-growth
revenue today

Everyone else

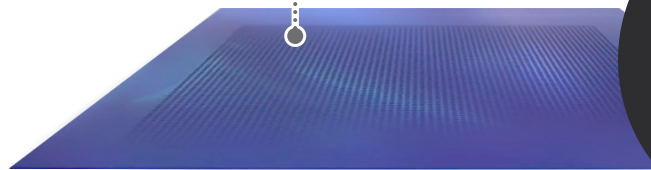
1 oligo per well



96 Well Plate
makes 1 gene



1M oligos per chip



TWIST Silicon Platform
can make 9,600 genes

Up to
10,000x
more scale &
throughput



State of the art commercial infrastructure

- Proprietary software
- Robotics
- Integrated ecommerce
platform with
order tracking
- Manufacturing
execution system

Synthetic Bio: Largest Selection of DNA Offered



Today



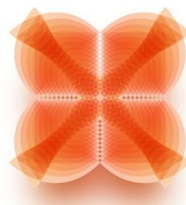
Genes

Clonal
Non-clonal
Fragments



Oligo Pools

sgRNA



Variant Libraries

Site saturation
Combinatorial

Roadmap

DNA preps

IgG

Cloning-ready
gene fragments

Innovative Online Ordering



T

M

CLONAL GENES

My Genes Project

OVERVIEW > GENE IMPORT > PRICING & SCORE

Change Vector

+ Flanks

Optimize

+ Genes

+ Custom Vector

Q

#	<input type="checkbox"/>	NAME ↓	SEQUENCE	BP	VECTOR	SCORE ⓘ	PRICE
1	<input type="checkbox"/>	gene-001	ACTCGACTGACTAGC...	1264	Select Vector ▾	●	\$113.76
2	<input type="checkbox"/>	gene-002	ACTCGACTGACTAGC...	1014	Select Vector ▾	●	\$91.26
3	<input type="checkbox"/>	gene-003	ACTCGACTGACTAGC...	978	Select Vector ▾	●	\$88.02
4	<input type="checkbox"/>	gene-004	ACTCGACTGACTAGC...	848	Select Vector ▾	●	Fix it
5	<input type="checkbox"/>	gene-005	ACTCGACTGACTAGC...	1200	Select Vector ▾	●	\$108.00
6	<input type="checkbox"/>	gene-006	ACTCGACTGACTAGC...	1124	Select Vector ▾	●	\$101.16
7	<input type="checkbox"/>	gene-007	ACTCGACTGACTAGC...	1200	Select Vector ▾	●	Fix it
8	<input type="checkbox"/>	gene-008	ACTCGACTGACTAGC...	1087	Select Vector ▾	●	\$97.83
9	<input type="checkbox"/>	gene-009	ACTCGACTGACTAGC...	1200	Select Vector ▾	●	\$108.00

32 GENES • 26,400 BP

All (240)

● Easy (24)

● Difficult (4)

● Error (2)

● Not Possible (2)

PRICING SUMMARY ⓘ

NAME	QTY	COST
Easy Genes	24	\$2,376.00
Cloning Fee	24	\$1,300.00

DELIVERY FORMAT

☒ Plate: 96 Well, Horizontal

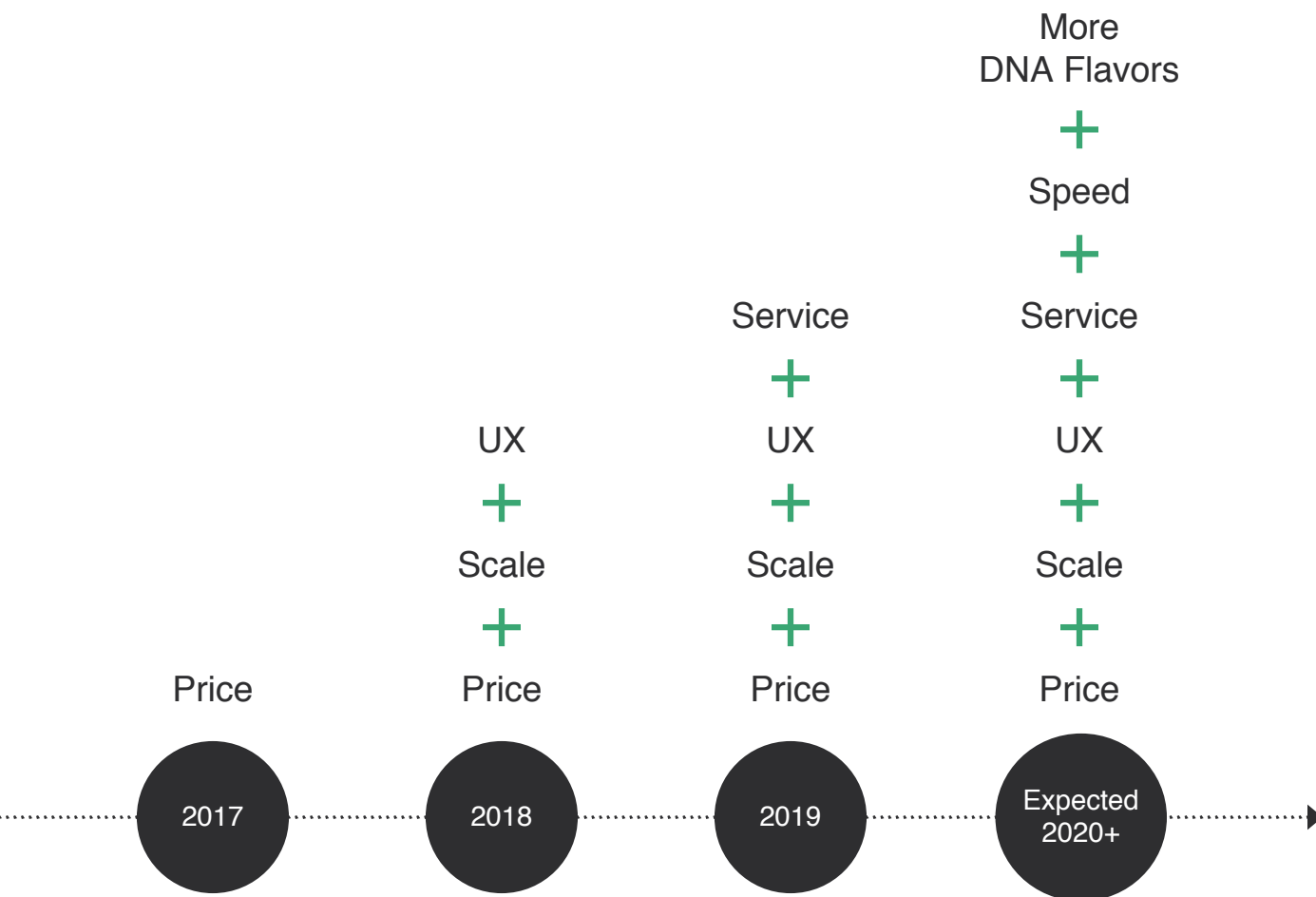
☐ Tube [Edit](#)

Total

\$3,676

Checkout

Synthetic Bio: Why We Win



We Deliver

- High quality DNA
- Competitive turnaround
- Affordability
- Fast throughput
- Unique customer experience
- Innovation



1,000+
Customers

8B
Bases shipped

288K
Genes shipped

98%
Orders via ecommerce



Case Study

P3 PANDEMIC PREVENTION PLATFORM

Rapid response to help medical workers
fight viral diseases in the field



Twist delivered hundreds of genes in 9 business days for first DARPA sprint

“

Twist's very high-throughput platform allowed us to quickly and efficiently examine thousands of possible antibodies in order to select the best results faster than ever before. – Robert Carnahan

”

Synthetic Bio: Investing in Growth

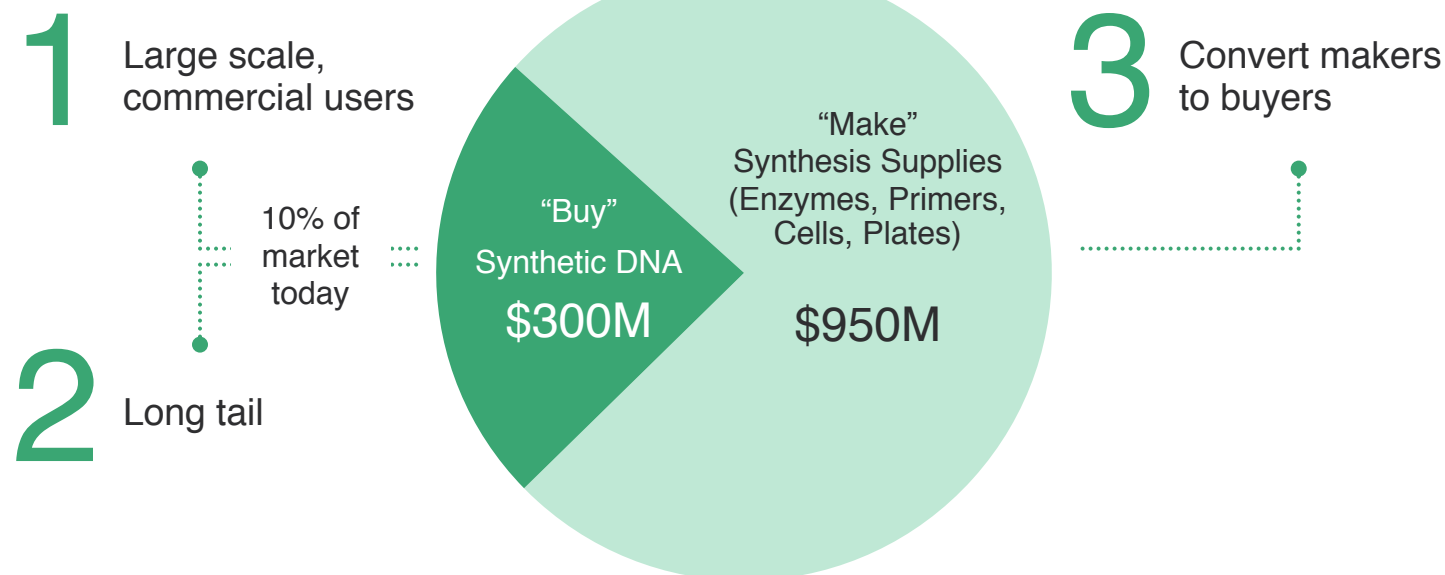


Ecommerce-centric Velocity Sales GTM

- Growing sales team
- Expanding digital marketing
- Leveraging new product offerings

Strategy for Large Market

\$1.3B / year



Source: BCC Research, Markets and Markets Report, internal company estimates



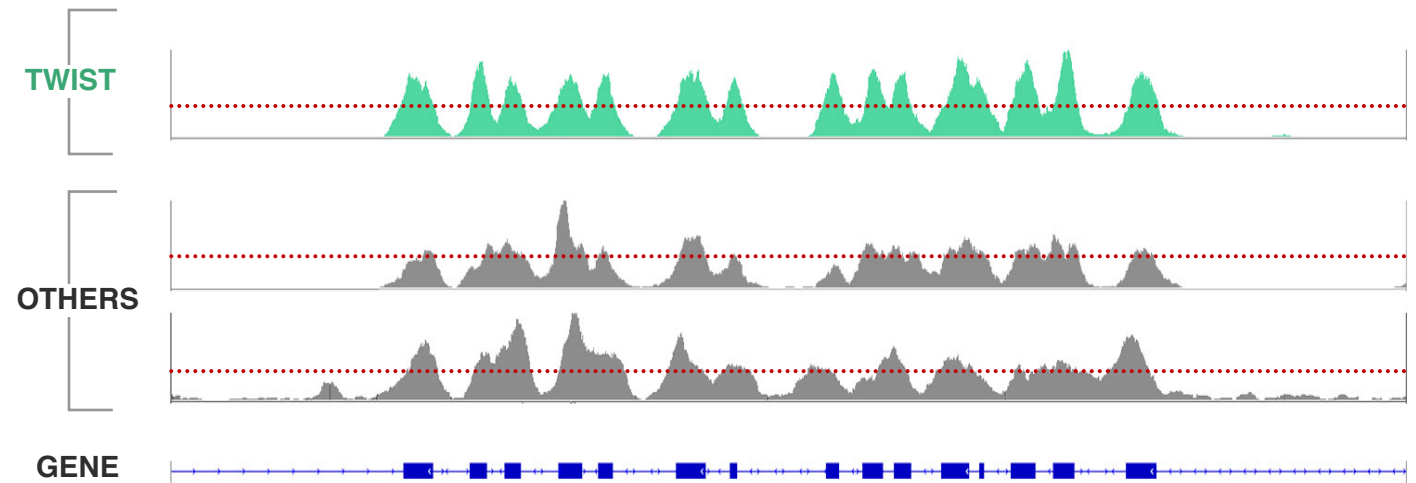
Targeted Sequencing

is powering new applications

- Liquid biopsy
- Rare disease
- Oncology
- Population genetics

Twist NGS Delivers Strong Uniformity in Double-Stranded DNA

EXON COVERAGE: GENE REGIONS OF INTEREST



NGS: Broad Offering with Expanding Capabilities



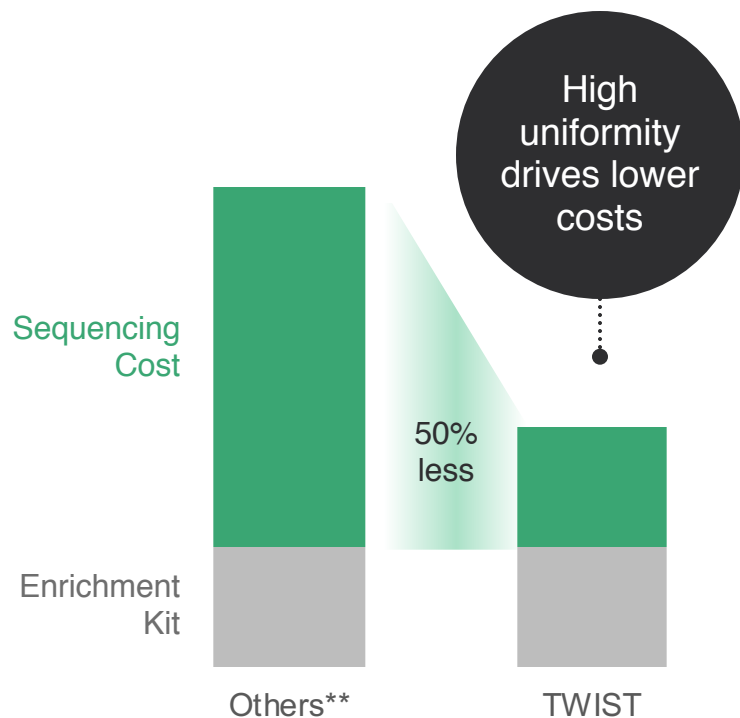
Today

Human Core Exome Kit
Human Comprehensive Exome Kit
Pan-Viral
Mouse Exome
Custom Panels
Library Prep Kits
Fast Hyb & Wash Kit
Universal Adapters

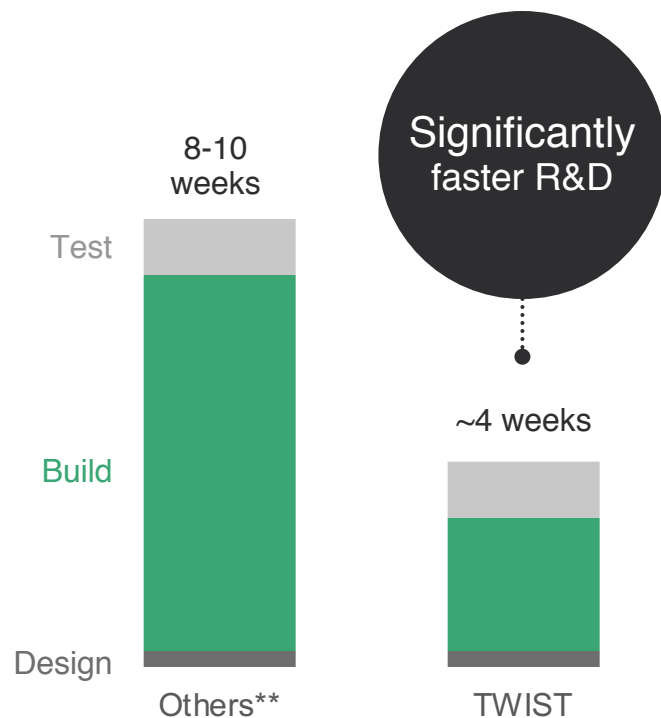
Roadmap

Oncology
Methylation
SNP Microarray
conversion to NGS

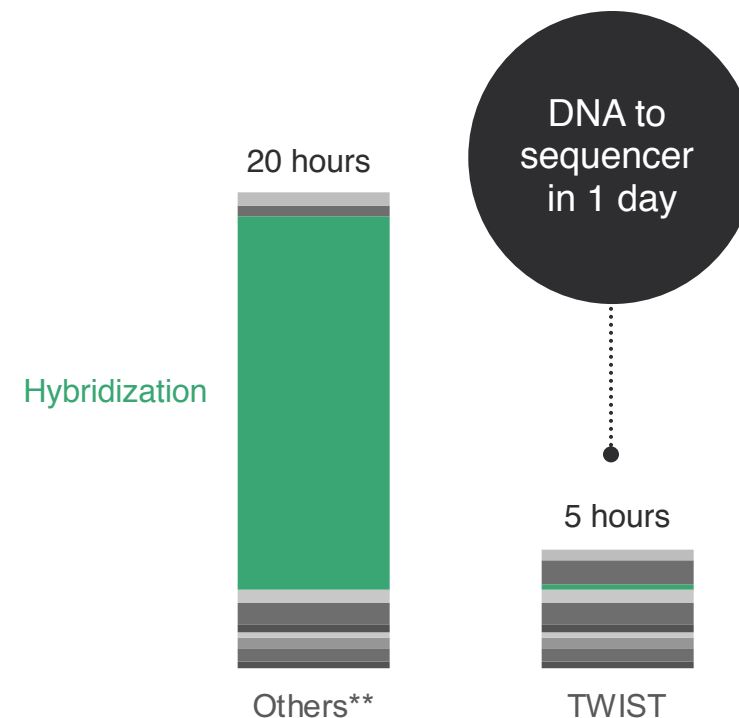
Low Cost per Sample



Rapid Customization



Fast Throughput*



*Includes pooling 1 & 2, pre-hybridization, hybridization, binding, wash steps, amplification, purification, target environment QC, and NGS prep

**Illustrative models based on company knowledge of competing technologies.

265

Customers shipped

36

in production

2

OEM partners

2

SNP microarray conversion

Exciting Use Cases



Liquid biopsy



Degraded DNA



SNP

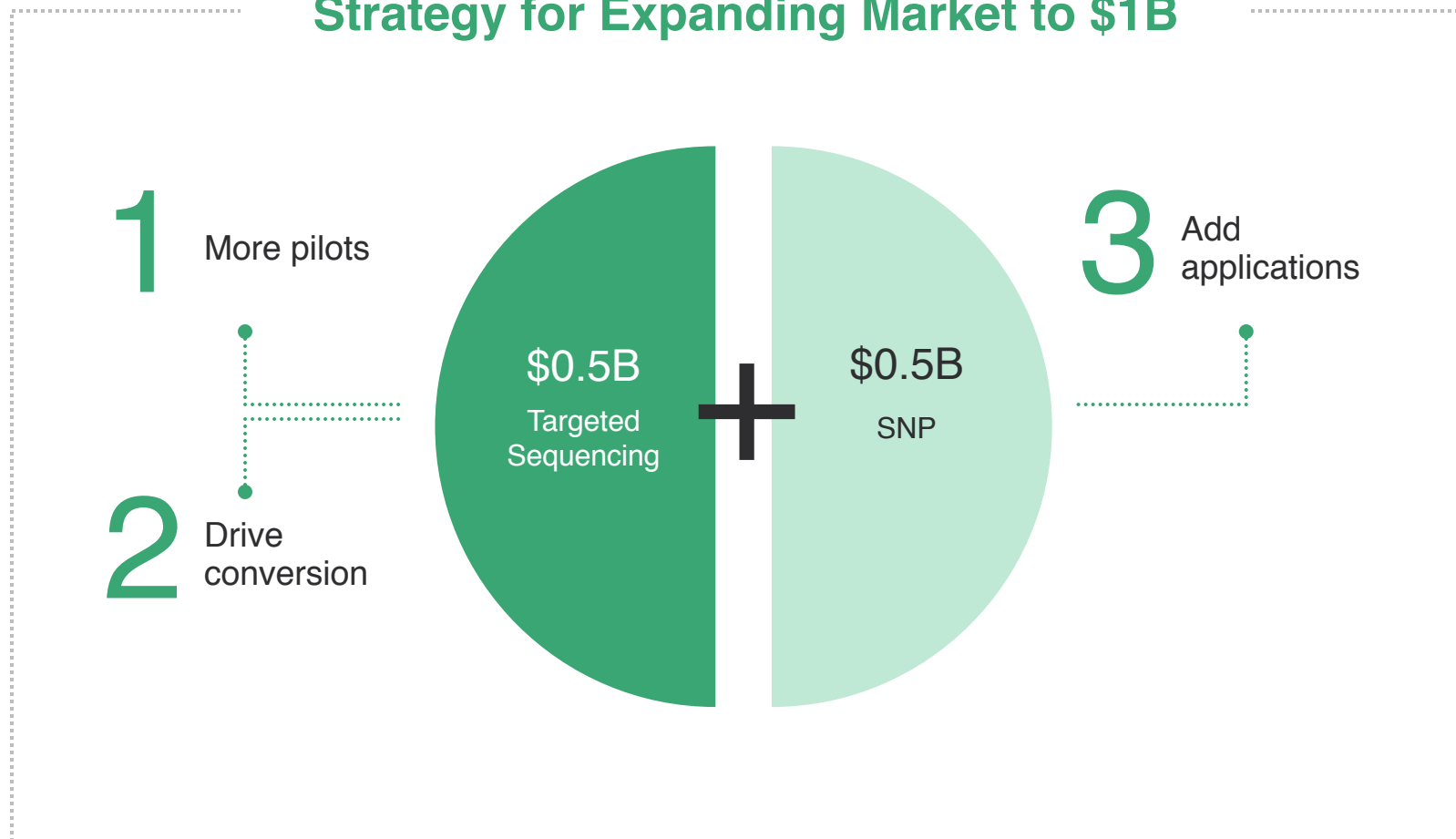


Rare disease

Solution Selling GTM

- Growing sales team
- Adding OEM partners

Strategy for Expanding Market to \$1B



MIROCULUS

Collaboration brings target enrichment and sample library preparation kits to Miro Canvas, a novel automation platform developed by Miroculus

- Streamlines the experimental process
- Provides more efficient solutions for a wide range of clinical applications
- Maximum flexibility and reproducibility

GenapSys

GenapSys customers to receive Twist's best-in-class target enrichment workflows

- Provides researchers with optimized assays spanning cancer test panels to whole human exome sequencing
- GenapSys to integrate new products into workflow in Q2 2020
- Working with a single vendor provides benefit of "one-stop shopping"

SOPHIA GENETICS

Collaboration brings access to universal SOPHiA Platform for advanced genomic analysis to Twist's customers

- Providing the interpretation and analysis of sequencing information
- Platforms will allow customers to go from sample to interpretation of the results quickly and efficiently
- Target enrichment enables genomic sequencing efforts to be focused in specific regions of interest, reducing cost and analysis time



We are Building a Diverse Portfolio of Businesses



**Drug
Discovery**

**Data
Storage**

**High-value
solutions**
Future upside

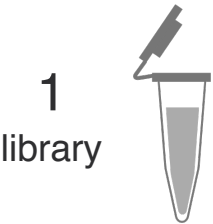
Tools
High-growth
revenue today

Synthetic
Biology

Next-Gen
Sequencing



Everyone else



Twist

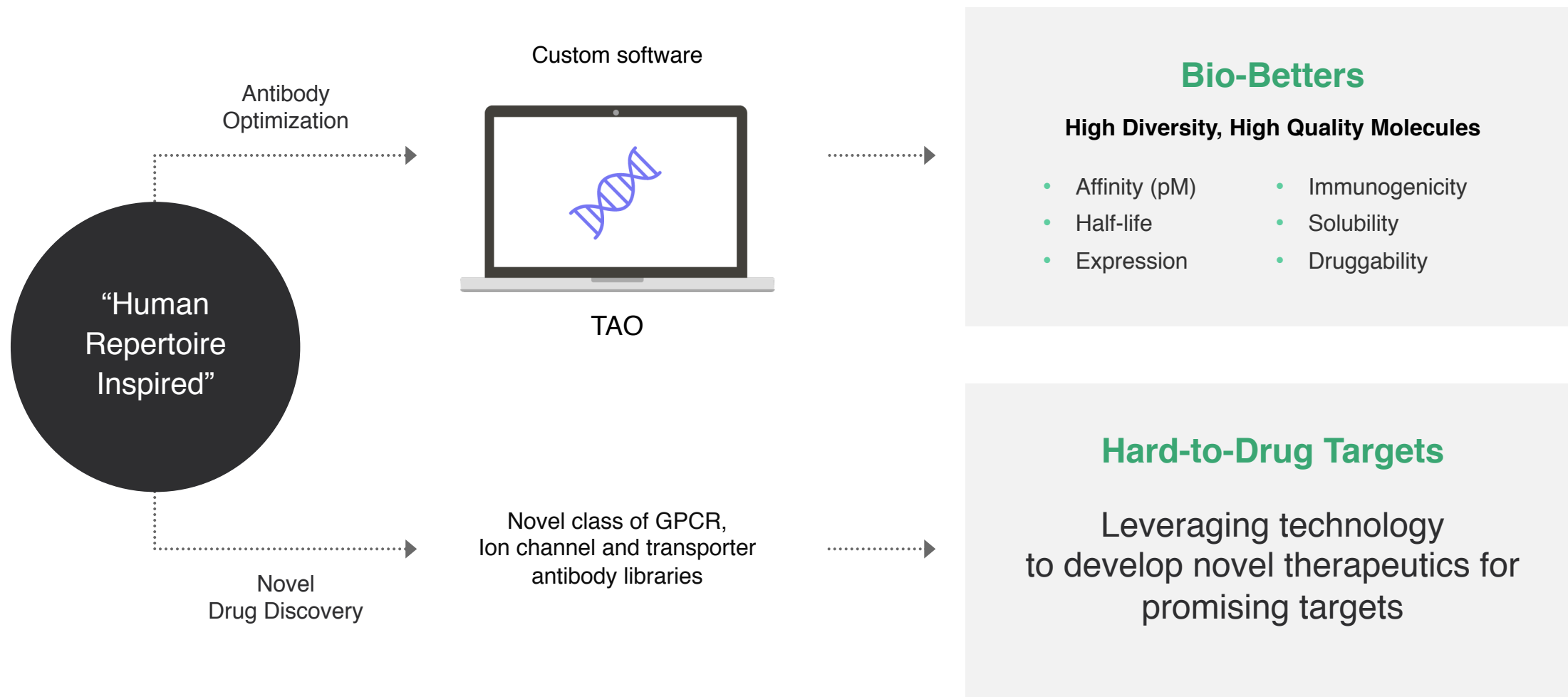
Pan hundreds
of antibody libraries
against every target

LIBRARY
OF
LIBRARIES

Random	DNA	Human repertoire
Low	SCALE	High
Manual	PROCESS	Automatic
100s	STAFF	10

We are working to monetize our investment by building royalty and milestone streams

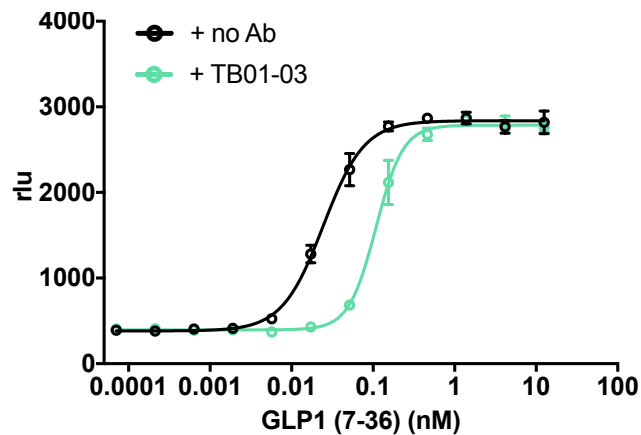
Discovering Bio-Betters and Hard-to-Drug Targets



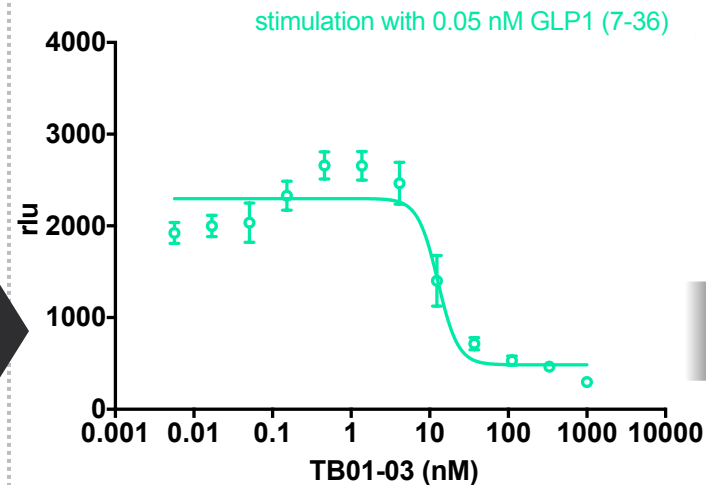
GPCR Development Candidate: TBO1-3 is Potent GLP1R Antagonist



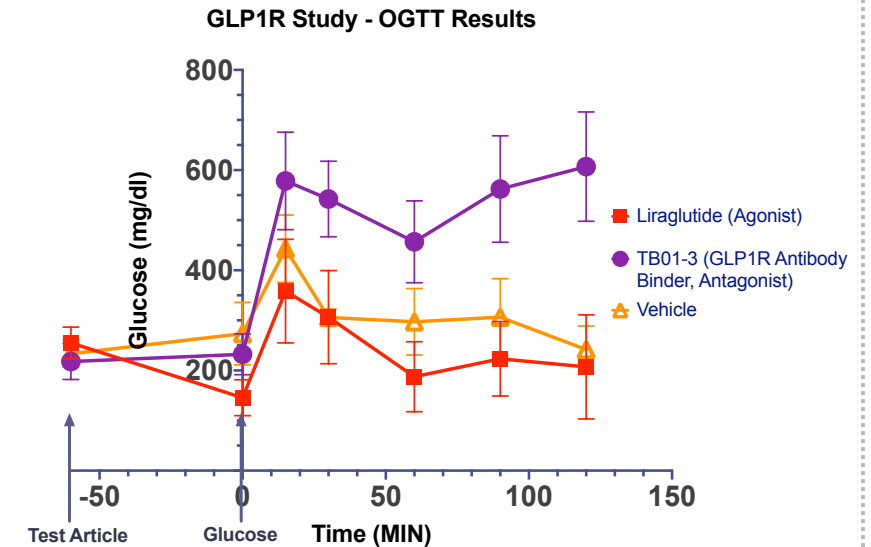
TBO1-3 Inhibits GLP1:GLP1R Signaling



Complete Inhibition at Higher Concentrations



In Vivo Efficacy with Glucose Tolerance Mouse Study



TBO1-3 dosed animals maintain sustained high glucose levels after glucose administration, indicating GLP1:GLP1R signal blockade

Potential application for rare diseases such as severe hypoglycemia

Pipeline of Functional Monoclonal Antibodies






GPCR TARGET	INDICATION
ADORA2A	Cancer
CRTH2	Asthma / inflammation
CXCR4	Cancer
CXCR5	Asthma / inflammation
FSHR	Infertility
GLP1R	Diabetes / rare metabolic diseases
V2R	Cancer

We are working to
optimize
these leads and
leverage our
platform for partnering
discussions

Biopharma Collaborations

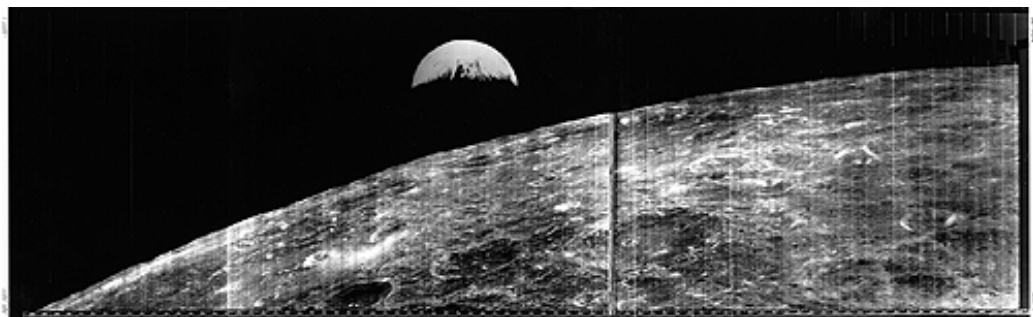


				Undisclosed
Focus	Co-marketing Twist services to their customers	Optimization of bispecific antibodies for autoimmune and inflammatory disease	Technology collaboration	Optimization of therapeutics
Economics	Shared economics	Per project	Collaboration on commercial opportunities	Per project

Twist Data Storage



Recovered from Lunar Orbiter 1 Tapes



**DNA for
Archival Storage of
Digital Information**

Permanence

Density

Random access

Universal format

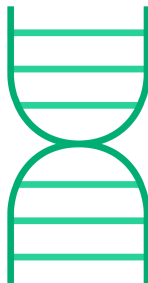
Data Storage in DNA: How It Works



1 Coding

00	→	A
01	→	G
10	→	C
11	→	T


2 Synthesis



3 Storage



4 Retrieval



5 Sequencing



A G T T A C

6 Decoding

A	→	00
G	→	01
C	→	10
T	→	11

DNA Data Storage Estimated Roadmap



				vs. HARD DRIVE
Commercial Goal	\$1000 / Mb	\$1000 / Gb	\$100 / Tb	\$125 / \$25 / Tb
Engineering Goal	50µm	1µm	50nm	2nm / 3nm

Funding

Non-dilutive IARPA \$2.5M / yr
+
Twist \$2.5M / yr

DNA Data Storage Non-Dilutive Funding



Twist Selected as DNA Synthesis Provider Under The Intelligence Advanced Research Project Agency (IARPA)

Collaborators



- Twist may receive up to \$9.15M
- Additional \$5.5 million designated to bolster DNA synthesis through new chip design, commercial implementation at Twist
- Significantly reduce the size, weight and power required for archival data storage
- Synthesize enough DNA per day to allow the cost of storing digital data to be as low as \$1/gigabyte
 - Ultimate Twist goal: Drive cost down to \$100/terabyte
- Bolster DNA synthesis through new chip design



I A R P A

NON-DILUTIVE
FINANCING

Delivering on Our Plan



2019

What we said we'd do

5Kb gene, Twist API
revenue diversification



ISO certification, ecommerce platform,
pilot conversion to full production



Early POC, 2 collaborations



Proof-of-concepts, increase density,
CMOS chip



Positive gross margin



SYNBIO

NGS

BIOPHARMA

DATA STORAGE

OPERATIONS

2020

Goals for 2020



Revenue growth and diversification,
new products, enhanced ecommerce



Continued pilot, SNP conversion, products
for liquid biopsy, oncology



Continued POC data packages, results for
collaborators, 5-10 new collaborators



Execute on IARPA



Increased gross margin, completion of new
writer introductions, improved TAT on
genes



Writing the Future



Platform for writing DNA on silicon

Large, growing markets

Differentiated value proposition

Portfolio of high growth businesses

High year-over-year revenue growth

Track record of execution and innovation