

**Advanced Genomics Platform for
Next-Generation Cancer Therapies**



Investor Presentation
May 2021

Forward-Looking Statements

This presentation and the accompanying oral presentation contain forward-looking statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical fact contained in this presentation, including statements as to future results of operations, financial condition, business strategy, plans, and objectives of management for future operations of Personalis, Inc. (“Personalis” or the “Company”), future market sizes, potential success of personalized cancer therapies and other drugs, the developing and potential competitive landscape for genomic sequencing platforms, and others, are forward-looking statements. These statements involve known and unknown risks, uncertainties, assumptions and other factors that may cause the Company’s actual results, performance or achievements to be materially different from any future results, performance or achievements, such as the impact of the COVID-19 pandemic on the business and operations of the Company and its customers, expressed or implied by the forward-looking statements. These forward-looking statements are subject to risks and uncertainties, including those discussed in Personalis’ filings with the Securities and Exchange Commission (“SEC”), including in the “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” sections of the Company’s most recently filed periodic reports on Forms 8-K, 10-K and 10-Q, and in the documents incorporated by reference therein.

In some cases, you can identify forward-looking statements because they contain words such as “anticipate,” “believe,” “contemplate,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “will,” or “would,” or the negative of these words or other similar terms or expressions. These statements are only predictions. Personalis has based these forward-looking statements largely on its current expectations and projections about future events and financial trends that it believes may affect its business, financial condition and results of operations. Also, these forward-looking statements represent the Company’s estimates and assumptions only as of the date of this presentation. The Company assumes no obligation to update any forward-looking statements after the date of this presentation, except as required by law.

This presentation also contains estimates and information concerning the Company’s industry and business, including estimated market size, projected growth rates of the markets in which Personalis participates, indicative pricing for the Company’s products and the prevalence of certain medical conditions. These data involve a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. The Company has not independently verified the statistical and other industry data generated by independent parties and contained in this presentation and, accordingly, it cannot guarantee their accuracy or completeness. In addition, projections, assumptions and estimates of its future performance and the future performance of the industries in which it operates are necessarily subject to a high degree of uncertainty and risk due to a variety of factors. These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by Personalis.

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Investment Highlights

Large market of ~\$40B for biopharma research, clinical and companion diagnostics, and population sequencing

Market-leading immuno-oncology biomarker platform for tissue & liquid biopsies

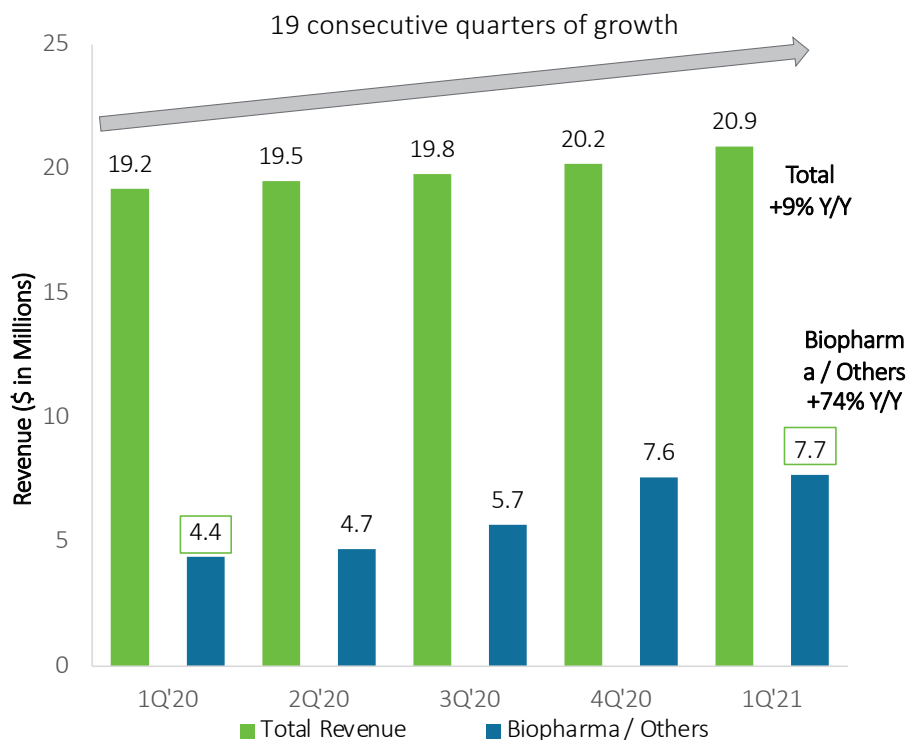
Growing NeXT platform adoption by large pharma and advanced biotech companies, including as a partner for prospective therapy development (50 customers as of 1Q'21)

Attractive historical growth and strong cash position

Proven scale with more than 180,000 samples sequenced to-date, with ample capacity

1Q 2021 Highlights

- Achieved record quarterly revenues of \$20.9M in Q1 2021 (+9% YoY growth), despite the negative impacts from the pandemic on customer sample shipments and operations
- ~74% YoY preliminary biopharma revenue growth, fueled by strong adoption of NeXT by both new and existing customers
- In total, 50 customers have placed orders for NeXT as of 3/31/2021, with five of those customers placing their first orders in 1Q 2021
- Initial pilot orders have increased on average from \$50K range in 2018 to hundreds of thousands of dollars
- Announced commercial partnerships with Natera and MapKure, a Beigene joint venture
- Cash, cash equivalents, and short-term investments were \$353MM as of 3/31/2021; added ~\$162MM in cash from common stock offering



2020-2021 Accomplishments

Key Highlights

50 Customers have placed orders for NeXT as of 1Q 2021

4 New Product Offerings in 2020

Commercial team has grown **100%** since the IPO and
30% in 2020 alone

Multiple New Partnership and Collaborations

9% YoY Revenue Growth in 1Q 2021

Completed **115,000+** Whole Genomes for VA MVP

Increased Momentum and Adoption by
Biopharma Customers

Key Customer Wins and Partnerships

- ✓ Customers include a majority of the top ten oncology pharma
- ✓ Collaboration with Merck KGaA to identify and develop novel biomarkers for cancer therapies
- ✓ CDx partnership with MapKure ,LLC, (JV of Beigene, Ltd.)
- ✓ Scientific collaboration with Sarepta Therapeutics for rare disease
- ✓ Partnership with Natera to provide exome sequencing services for personalized test
- ✓ Partnership with Berry Genomics for China lab expansion

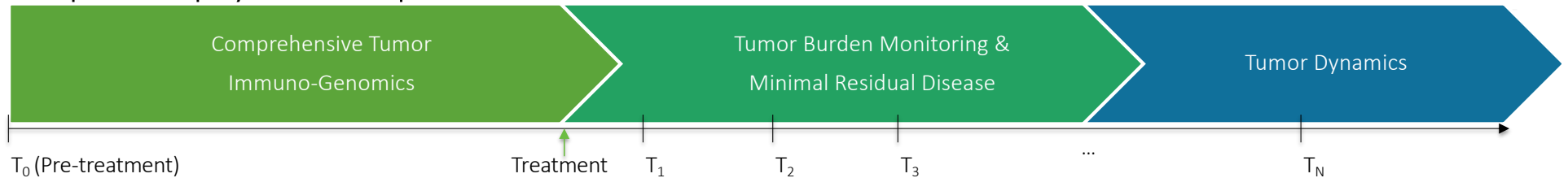
New Product Offerings

- ✓ NeXT Liquid Biopsy, exome-wide liquid biopsy platform (launched)
- ✓ NeXT Personal, also from liquid biopsies (2021 planned launch)
- ✓ Cancer whole genome sequencing services (launched 2019); future option to identify ~ 20x more variants for NeXT Personal
- ✓ NeXT Dx Test, a comprehensive genomic cancer profiling test enabling advanced composite biomarkers for cancer treatment
- ✓ NeXT SHERPA and NEOPS neoantigen prediction capability

2021 Strategic Priorities

- Drive continued growth of NeXT platform and population sequencing with both new and existing customers
- Continue to drive the expansion of our multiple liquid biopsy offering, including:
 - NeXT Liquid Biopsy which was launched in August 2020 and has received several initial customer orders in 2020 with first customer delivery in 1Q 2021
 - Expect to launch of NeXT Personal (MRD Liquid Biopsy offering) in 2021
- Continue to invest in infrastructure and ramp up efforts to obtain clinical and regulatory approval for NeXT Platform
- Continue to enhance and display clinical utility of the NeXT Platform through collaborations
- Expansion of facility capacity and operational footprint
- Expand footprint in China and deepen relationships with the local scientific and regulatory community

Liquid Biopsy Roadmap



ImmunoID NeXT Or NeXT Dx

Tumor biopsy



- ~20,000 genes
- DNA and RNA Seq
- Tumor & Immune
- Tumor & Normal
- Whole Genome (future option)

Identify up to thousands of mutations; design panel.

NeXT Personal (in early R&D)

- Personalized tumor tracking for each patient
- Up to thousands of mutations
- High sensitivity
- May use less plasma

NeXT Liquid Bx

- New mutations
- Acquired Mechanisms of Resistance
- Biomarker dynamics
- Tumor Dynamics

Overview of Recently Launched NeXT Liquid Biopsy Platform

Platform Highlights

- Monitors 20,000 genes, or about 40x more genes than the majority of liquid biopsy cancer panels on the market
- Ability to track mutations and detect new mutations over time in response to treatment
- Capabilities will help biopharmaceutical companies advance their understanding of tumor biology, including resistance mechanisms, to aid the development of next-generation cancer therapies

Strategic Importance

- Expands TAM into liquid biopsy market
- First product in Company's liquid biopsy product portfolio
- Liquid biopsy results can be paired with NeXT Platform tissue results and provide an unprecedented breadth of data from limited tumor sample
- Comprehensiveness matters for biopharma customers

Several customer orders received with additional discussions ongoing

Company Overview

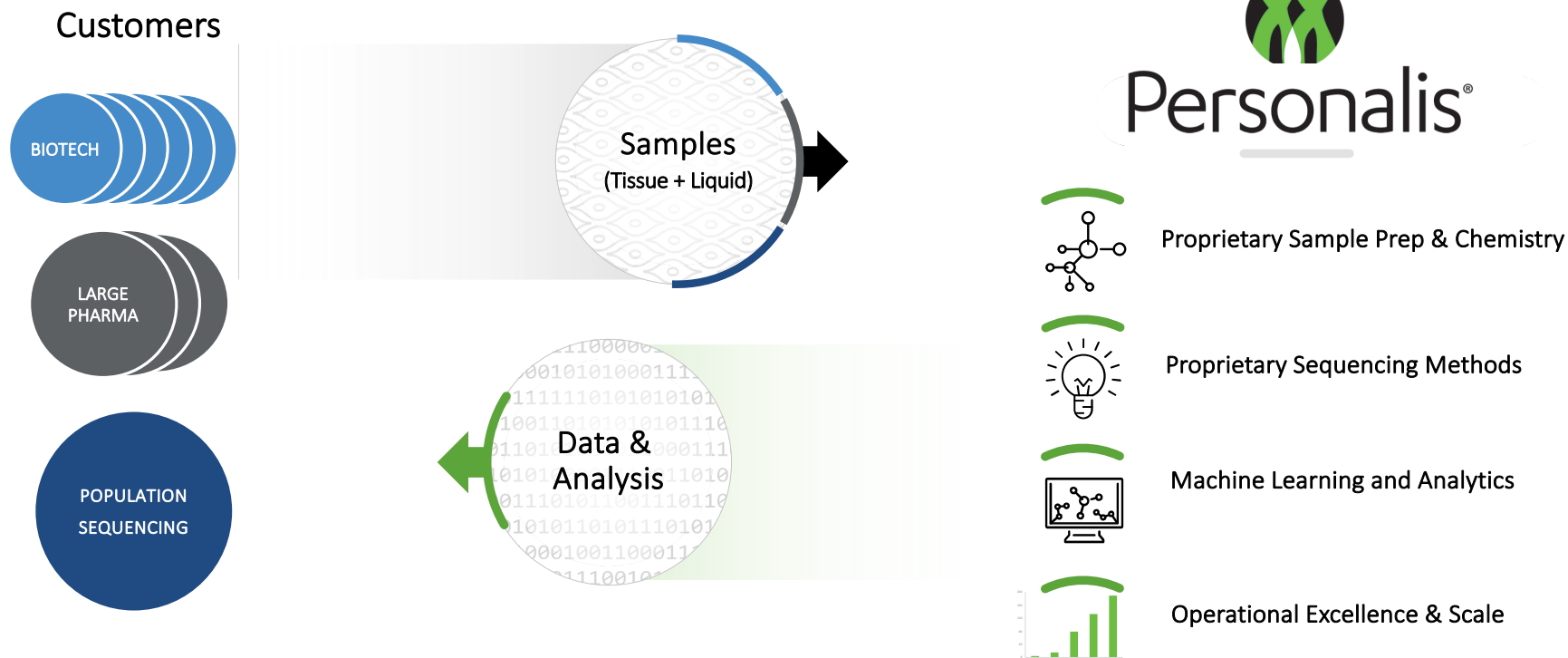


*Cancer drug development & population sequencing
are increasingly about data...*

... and Personalis is positioned to be a key part of that ecosystem

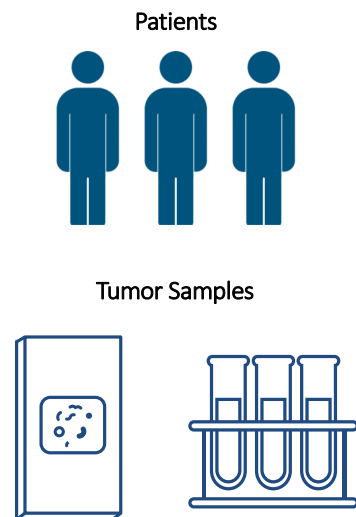
Personalis Provides Proprietary Genomic Information to Customers

Efforts to develop better cancer drugs increase demand for genomic information



Personalis is Transforming the Development of Next-Generation Cancer Therapies

Providing biopharma with more comprehensive molecular data about patient tumors



Comprehensive
Molecular Data

~20,000

TUMOR GENES + IMMUNE SYSTEM

Customer Base

50+

BIOPHARMA CUSTOMERS as of 1Q'21
NO REIMBURSEMENT

Substantial
Growth

2020 REVENUE: **\$78.6MM** (+21% YoY)
1Q'21 REVENUE: \$20.9MM (+9% YoY)

WITH CAPITAL-EFFICIENT BUSINESS MODEL

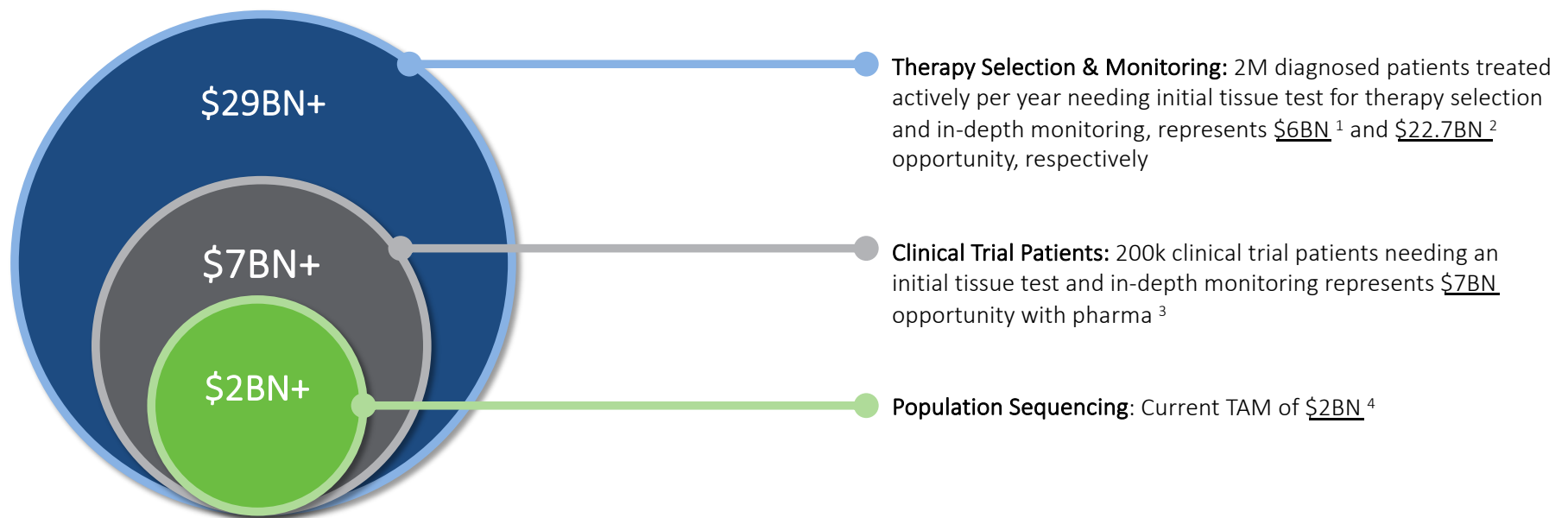
Large Market

~\$40 billion

ESTIMATED TAM WITH BIOPHARMA, Dx,
CDx, AND POPSEQ CUSTOMERS ¹

Large Market Opportunity Across Therapy Selection, Monitoring, Clinical Trials, and Population Sequencing

Comprehensive Product Offering in ~\$40BN Current TAM Categories



Notes:

1. Company estimate based on 2 million diagnosed cancer patients requiring an initial tissue test at a price of ~\$3,000 per test.
2. Company estimate based on 2 million diagnosed patients requiring in-depth monitoring at a test price of \$2,840 per test at a frequency of four times a year
3. Company estimate based on 200,000 clinical trial patients requiring an initial tissue test at a price of ~\$3,000 per test and in-depth monitoring at a price of ~\$4,000 per test at a frequency of eight times per year.
4. Company estimate based on its VA MVP genome sequencing pricing and 2 million individuals per year, based on publicly available reports of population sequencing projects covering over 14 million individuals and an assumed 7-year average project duration.

Therapy Selection, Monitoring, Clinical Trials TAM Build-Up

	Estimated # of Cancer Patients	x Assumed Testing Needed	x Indicative Price	= Market Opportunity
Clinical Trial Patients	200k/Year ¹	1 Initial Tissue Test	~\$3,000 ⁵	~\$600M
		8x/yr in-depth monitoring ³	~\$4,000 ³	~\$6.4BN
Therapy Selection	2M/Year ²	1 Initial Tissue Test	~\$3,000 ⁵	~\$6BN
Monitoring	2M/Year ²	4x/yr in-depth monitoring ⁴	~\$2,840 ⁶	~\$22.72BN

Notes:

1. Estimated 200,000 enrolled in clinical trials based on Company review of ClinicalTrials.gov data.
2. U.S. National Cancer Institute estimate that 2.2 million patients are actively receiving care. 2 million per year, net clinical trial patients.
3. Company estimate for pricing is based on the Company's historical standard pricing for tissue samples and anticipated pricing for liquid biopsy samples. Company estimate for frequency is based on frequency of monitoring in a clinical trial protocol used by Merck in a recent immune-oncology drug trial and assumes that monitoring would occur every six weeks.
4. Company estimate based on expected usage for Signatera, a personalized circulating tumor DNA monitoring assay to support optimal cancer treatment planning, reported by Natera on its Q2 2020 earnings call.
5. CMS payment rate for tissue-based cancer diagnostic test – based on CPT code 81455.
6. Currently no approved pricing for monitoring in cancer, but given the technical similarity to Natera's kidney transplant rejection monitoring test, Prospera, which also monitors cell free DNA from blood plasma and which receives coverage at \$2,840, based on assumption that similar coverage could be sought for cancer monitoring genetic tests not currently subject to coverage.

Operational Excellence

180,000+ human samples
sequenced to date

Significant focus on process development
including with laboratory automation, to drive margin expansion

Differentiated QMS and Regulatory Credentials
CLIA / CAP, NY State¹ & FDA² - all at exome scale

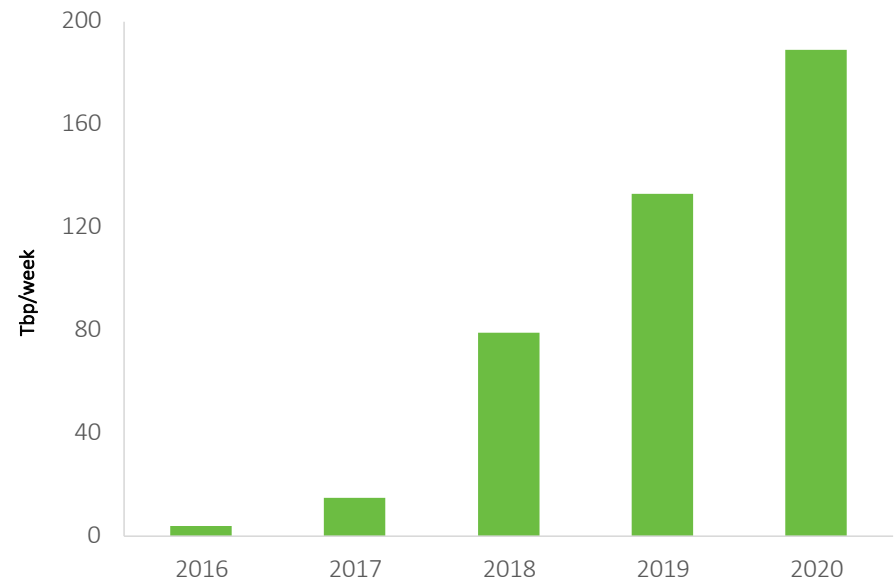
Headquartered
in Menlo Park, CA

250+ employees

Specialized commercial team has grown 100% since
IPO

Intellectual Property Protection
including 10 issued U.S. and 2 issued foreign patents

Growth of Personalis' Sequencing Capacity
Sequencing capacity at Q1



Equipment sequencing capacity as of Q1 each year

Notes:

1. We maintain a current license with the New York State Department of Health for our laboratory
2. We have filed a Device Master File with the FDA.

Experienced Leadership Team



John West

President, Chief Executive Officer & Director



Richard Chen, M.D., M.S.

Chief Scientific Officer



Stephen Moore

General Counsel



Aaron Tachibana

Chief Financial Officer



MANAGEMENT TEAM

Christian Haudenschild, Ph.D.	VP Operations
Stephane Mouradian	VP Business Development
Susan Moriconi	VP People & CHRO
Carol Tillis	VP Finance and Administration
Rena McClory, Ph.D.	VP Marketing
Lloyd Hsu	VP Software Engineering



NON-EMPLOYEE DIRECTORS

Jonathan MacQuitty, Ph.D.	Chairman of the Board
A. Blaine Bowman	Director
Alan Colowick, M.D.	Director
Karin Eastham	Director
Kenneth Ludlum	Director
Woodrow Myers, M.D.	Director
Paul Ricci	Director



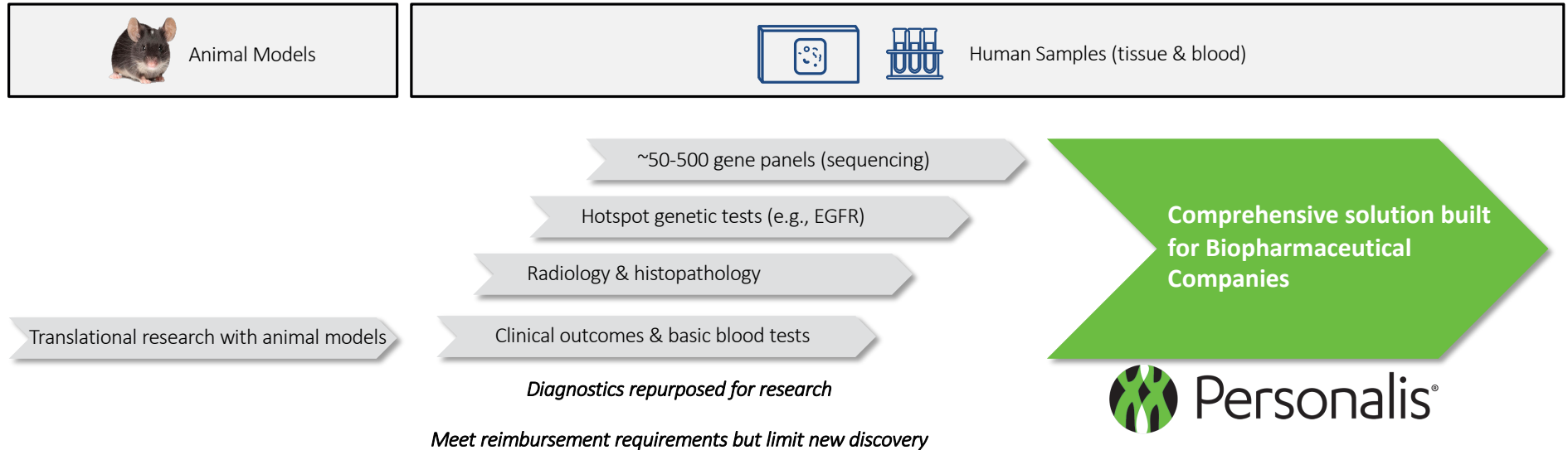
Oncology



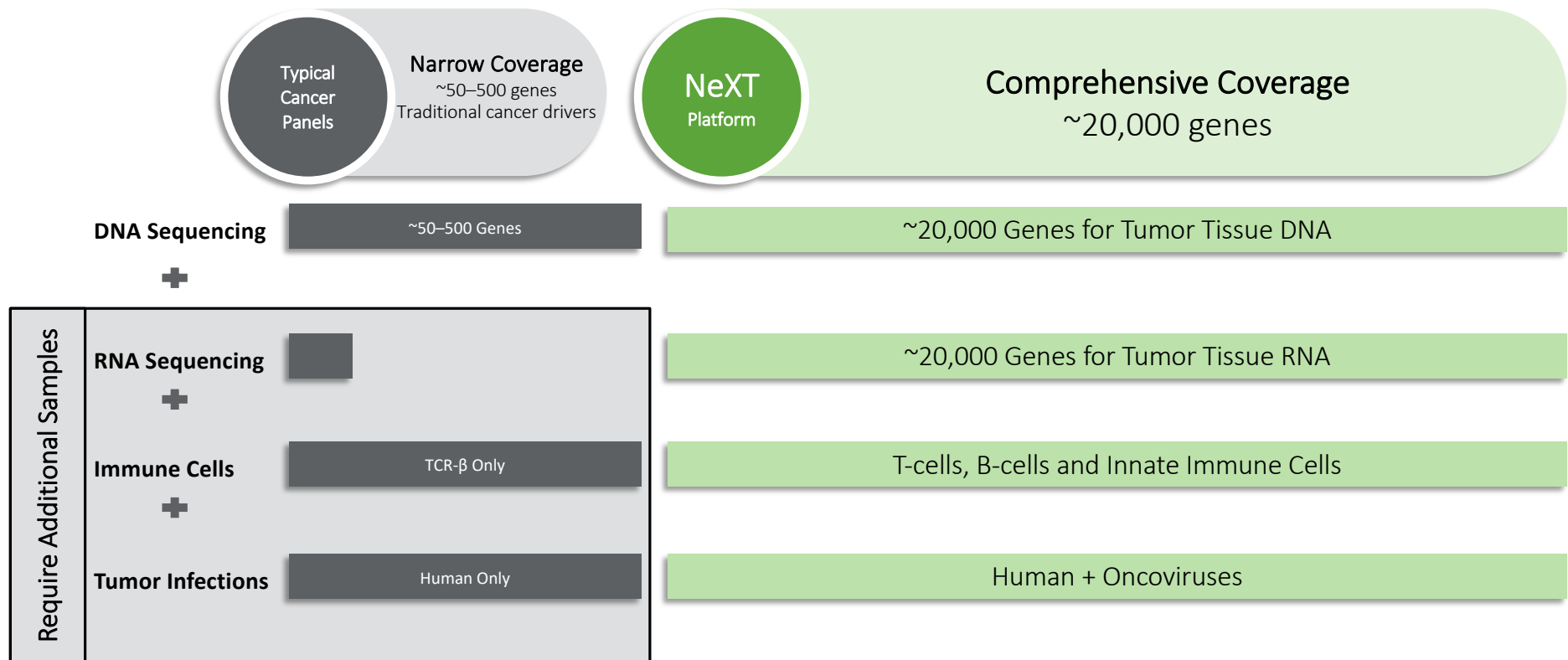
Personalis®

Personalis is Purpose-Built for Biopharma

Our comprehensive solution represents the next step in biopharmaceutical research



Diagnostic Panels Utilize Human Tissue But Aren't Comprehensive











Proprietary Platform Maximizes Insights from a Single Sample

Patient Tumor Samples Are Often Extremely Limited



Traditional Process

Multiple Samples | Multiple Vendors | Multiple Assays

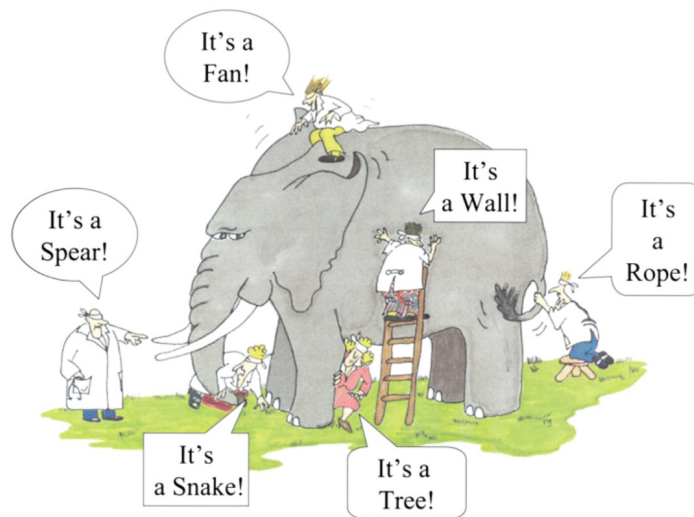
-  Targeted Therapy Panel (often 50 to 500 genes)
-  Neoantigen Identification from Exome
-  Expression Data from Array
-  TCR / Immune Cell Repertoire
-  MSI-Testing
-  Oncoviral Testing
-  Remaining Sample, if any, Sent to Discovery and Translational Teams
-  HLA-Testing



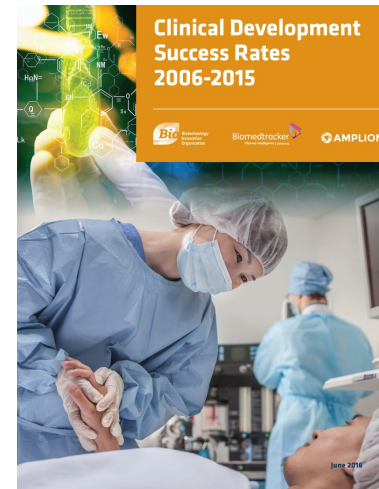
Personalis®

**Comprehensive Data with a Limited Sample
Higher Success Rate and Lower Costs**

Personalis Provides a More Complete Picture of the Cancer, Which is Expected to Lead to Improved Clinical Development Success Rates



Viewing a singular aspect of tumor biology limits conclusions



5.1%

The likelihood of FDA approval from Phase I clinical trial for oncology developmental candidates¹

Enabling Comprehensive Data for Precision Medicine



Clinical Trials

Translational Research & Clinical Trials, Advanced Biomarker Discovery



Diagnostics

Path from Translational Research to CDx on the Same Platform



Biobanks & Databases

Enabling Comprehensive Tumor Immuno-Genomics Database








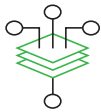



Personalized Diagnostics & Therapies

Genomics Engine for Personalized Cancer Therapies & Diagnostics

Proprietary Assay and Analytics for the Many Elements of Tumor Biology

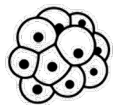
ImmunoID NeXT

	DNA & RNA Coverage over 20,000 genes	Neoantigens	Tumor Escape & Immuno-modulators	HLA Type & Mutations	Immune Repertoire	MSI	Oncoviruses	Immunocellular Deconvolution	Diagnostic Report
									
Proprietary Assay & Content	ACE assay technology enhances accuracy	ACE assay technology Proprietary mass spec data	ACE assay technology	Proprietary design to enhance accuracy	Proprietary design boosts CDR3	Enhancement in MSI regions not covered by exomes	Proprietary design	Proprietary RNA signatures*	Boost >1000X in clinical footprint for clinical grade coverage
Proprietary Analytics & Validation	Validated analytics for DNA and RNA mutations True TMB	Proprietary neural networks	Integrated DNA & RNA analytics	Validated high accuracy algorithms	Analytics for TCR and BCR	Both canonical and exome based MSI computation Clinical validation*	Sensitive and specific detection*	Immune cell signature scores*	Clinically validated analytics and reporting*

Personalis customers can select features of the platform to meet their particular needs. An * denotes next-generation feature in development.

Differentiated Analytics Driven by Proprietary Content

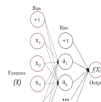
Engineered cell lines train neural networks to make predictions



Genetically engineered cell lines



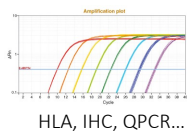
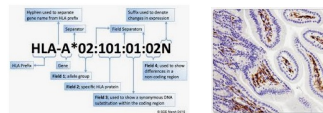
Mass spectrometry



Neural networks

Neoantigen prediction

Sequencing approach validated with orthogonal technologies



Foundation for regulatory compliance

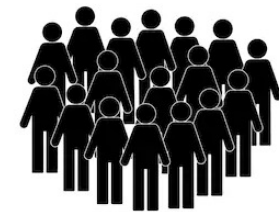
Clinical & research collaborations



PARKER INSTITUTE
for CANCER IMMUNOTHERAPY

Demonstrate clinical utility
of the platform

Growing database from patient samples

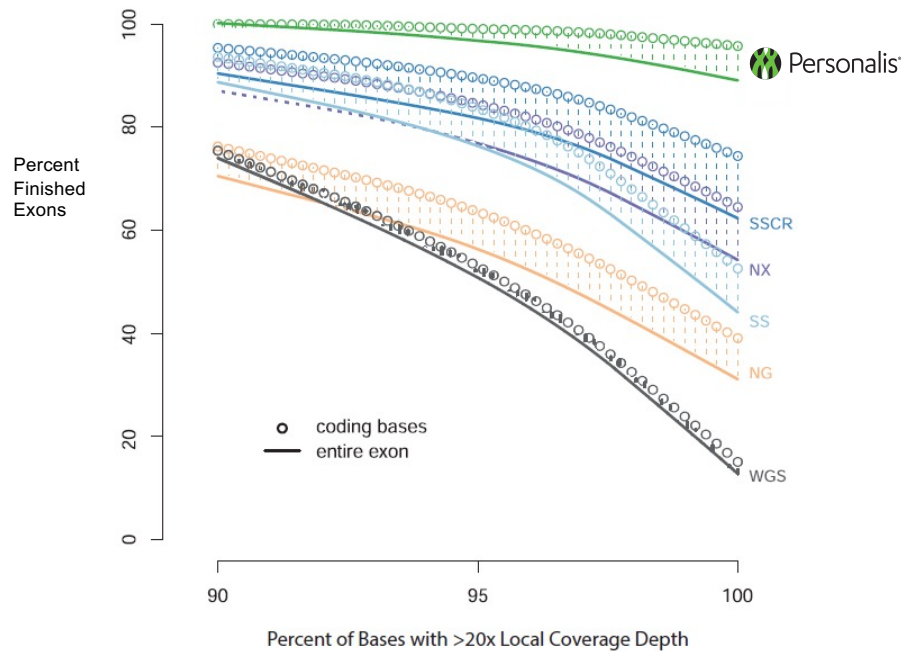


Provides customer with additional
information and opportunity for discovery of
unique drug targets

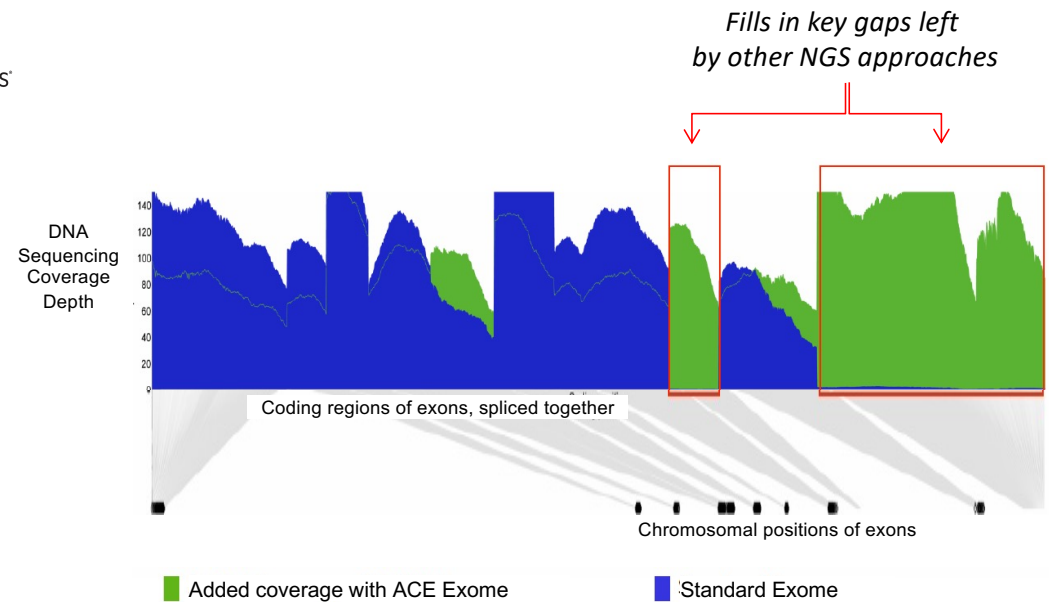
Proprietary Sequencing Methods Achieve Superior Coverage and Gene Finishing

Coverage, depth and accuracy are key in oncology

Superior sequencing performance¹



Coverage of difficult-to-sequence gene regions

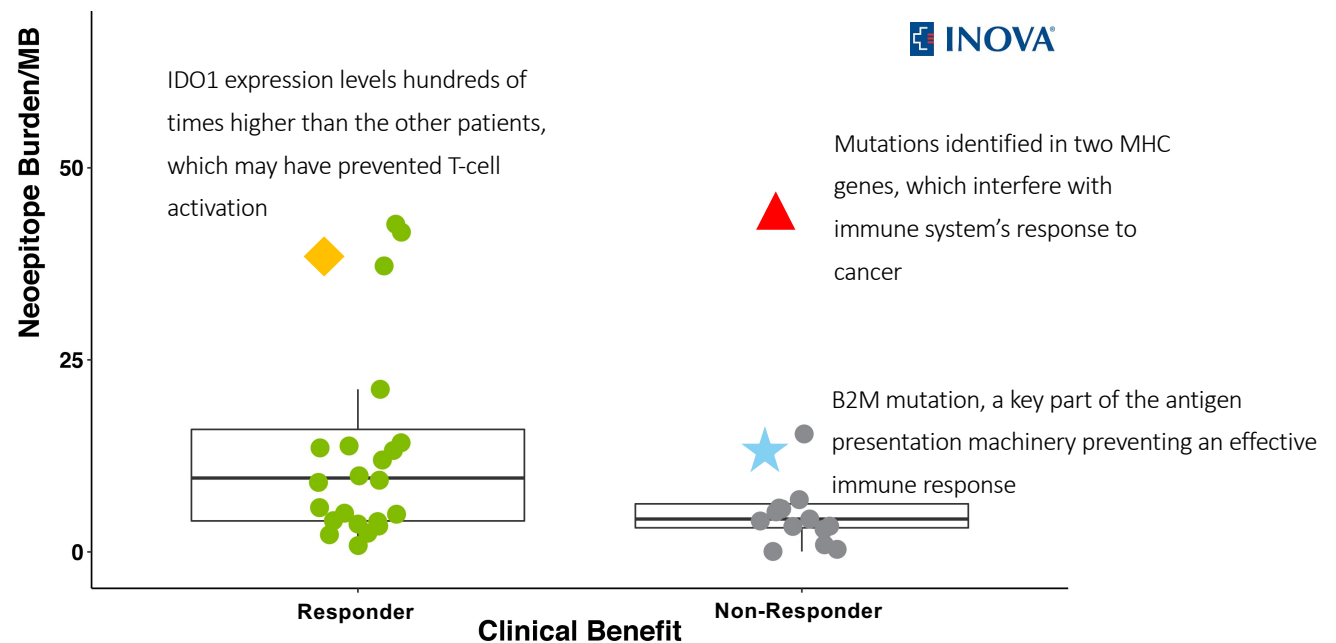


Comprehensiveness Allows Customers to Better Understand Why Patients Respond

At an average cost of ~\$60,000 per patient in oncology clinical trials,¹ understanding why patients do or don't respond is critical

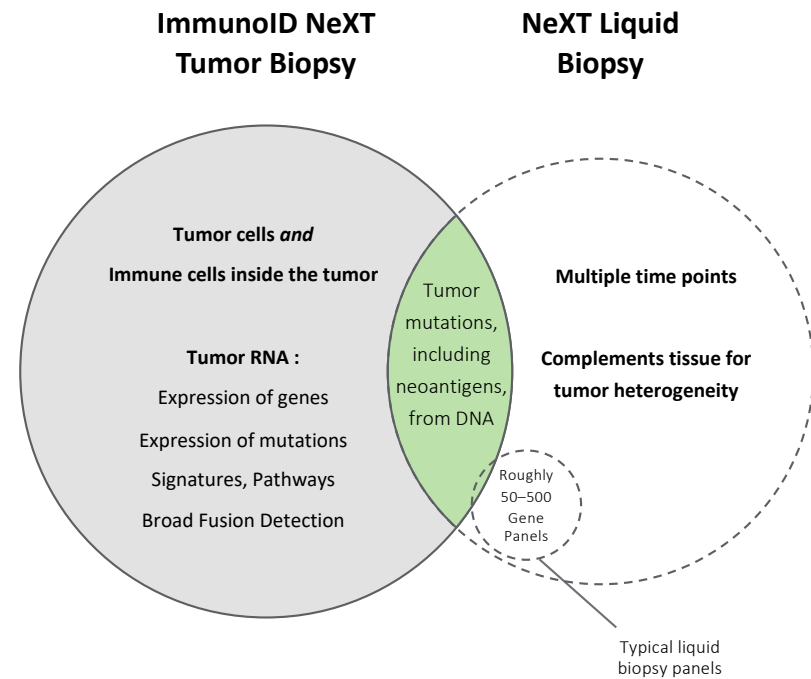
Improve enrollment
criteria in clinical trials

Discover new biological
mechanisms underlying
therapeutic response and
tumor resistance



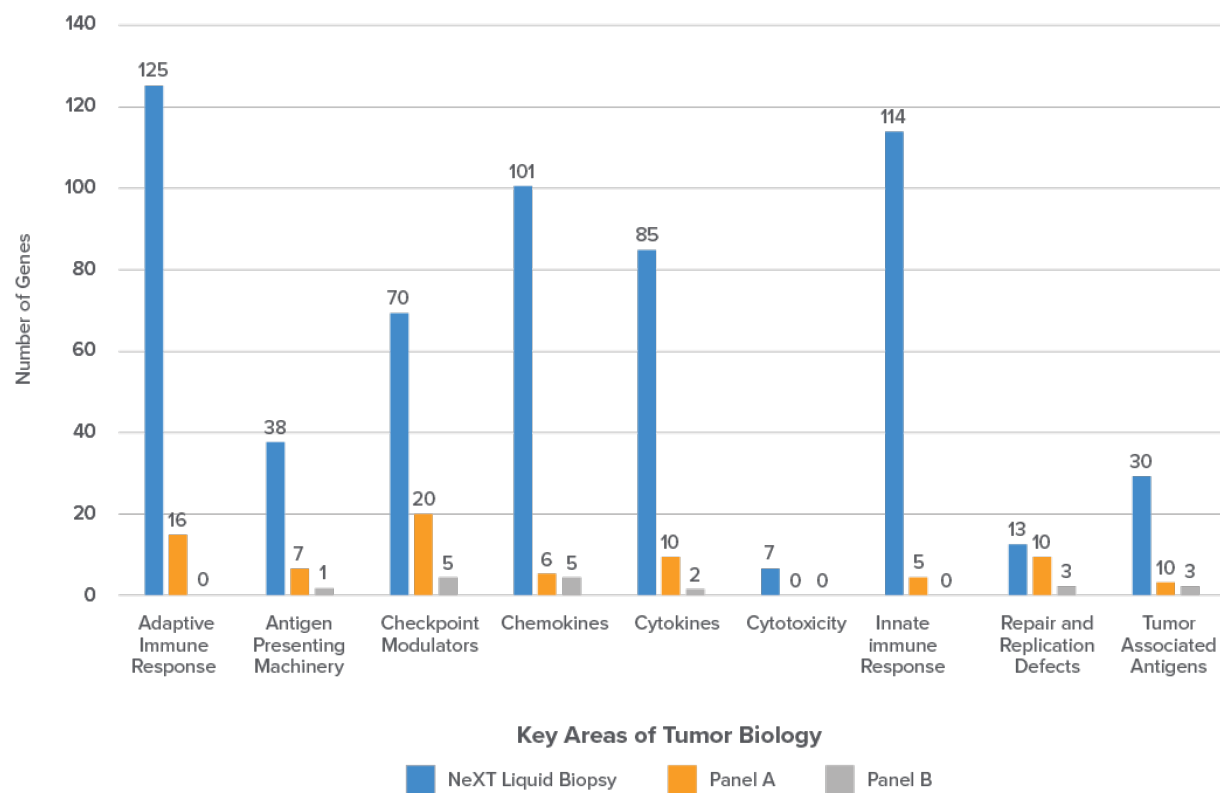
NeXT Liquid Biopsy Capabilities to Complement ImmunoID NeXT Tumor Profiling

Tissue is critical for immune cells and RNA, but cfDNA complements with new insights and serial time points

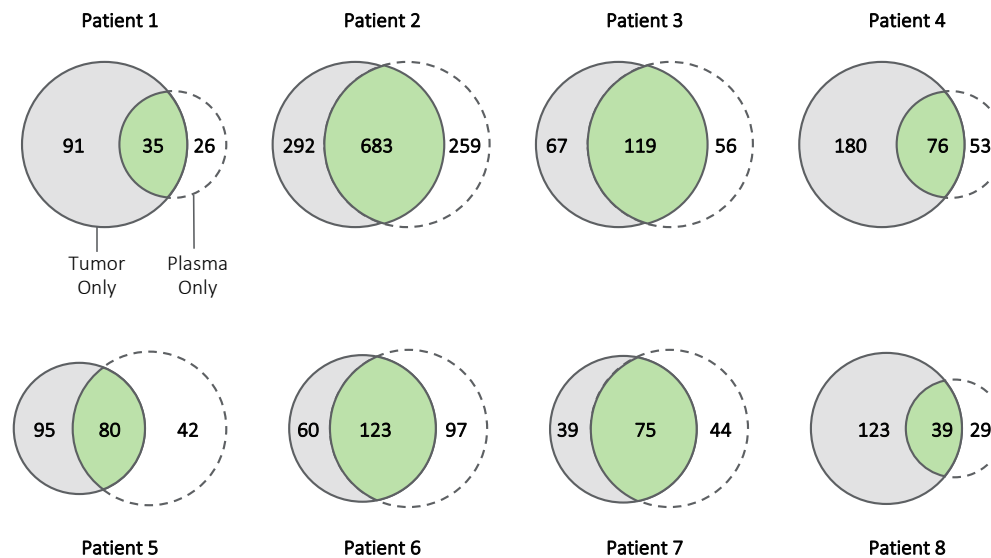


NeXT Liquid Biopsy (LB) Enables a Broader View of Tumor Biology Compared to Panels ¹

NeXT LB covers substantially more genes relevant to immunotherapy

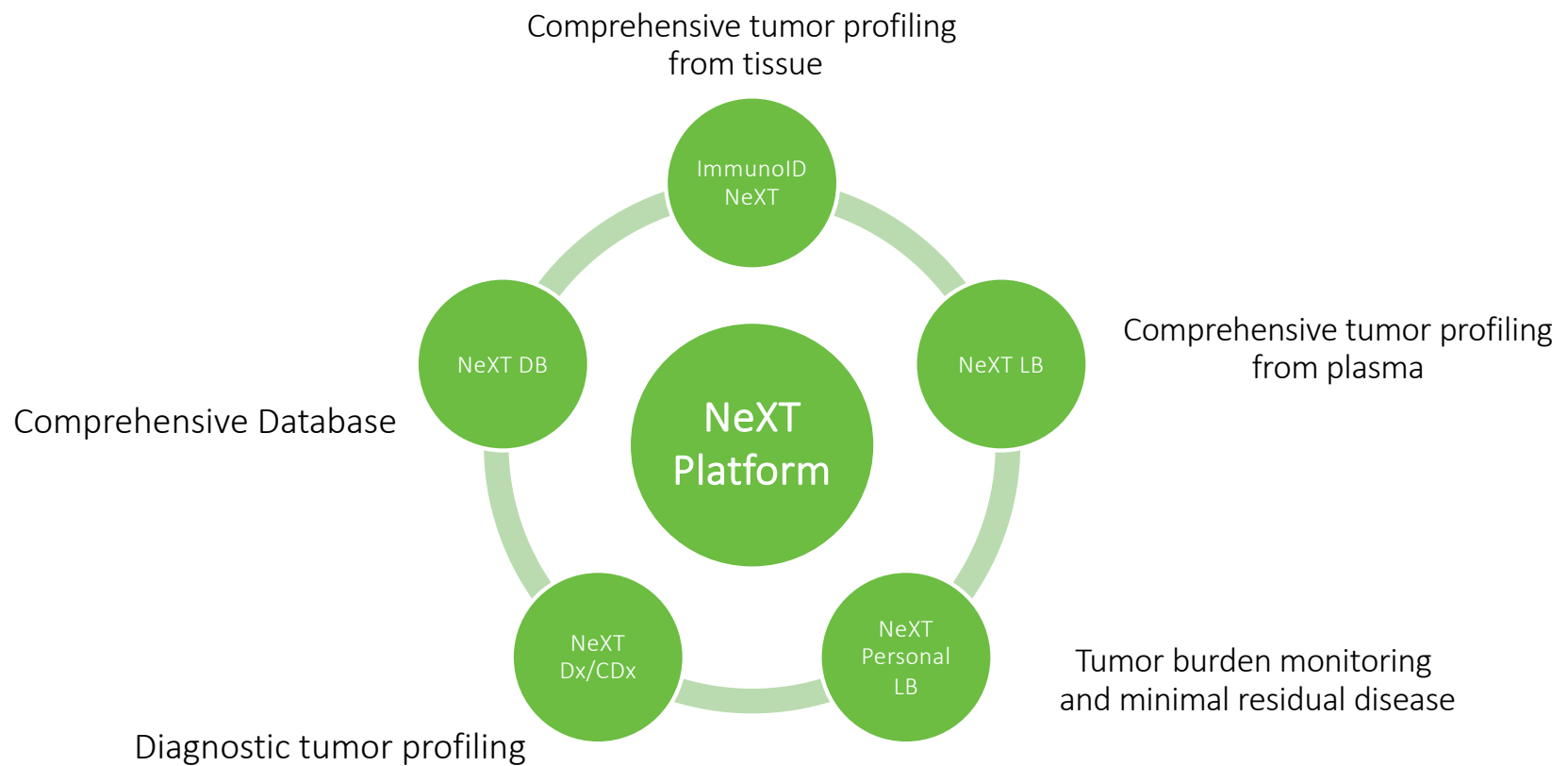


Mutations Found in Tissue Samples and cfDNA are Important for Drug Development



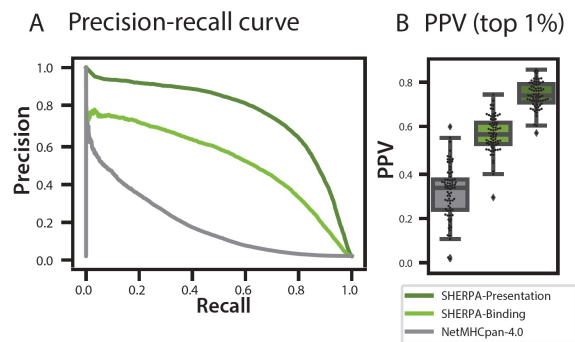
Numbers indicate variants detected in the tumor only, plasma only, or in both.

Creating an Ecosystem of NeXT Products Over Time that Synergize to Drive Value

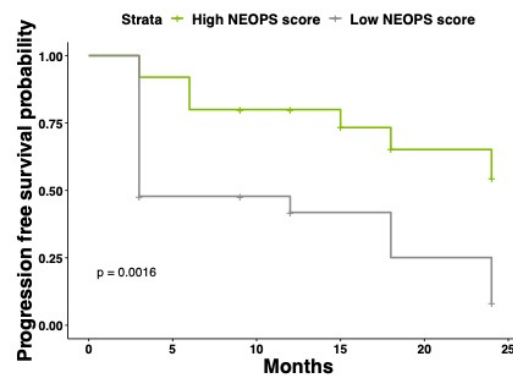


Harnessing Machine Learning For Leading Advanced Analytics & Biomarkers

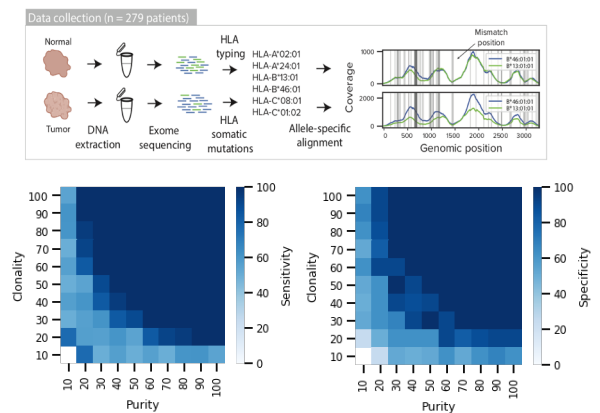
SHERPA Machine Learning Based Neoantigen Prediction



NEOPS Composite Neoantigen Presentation Score

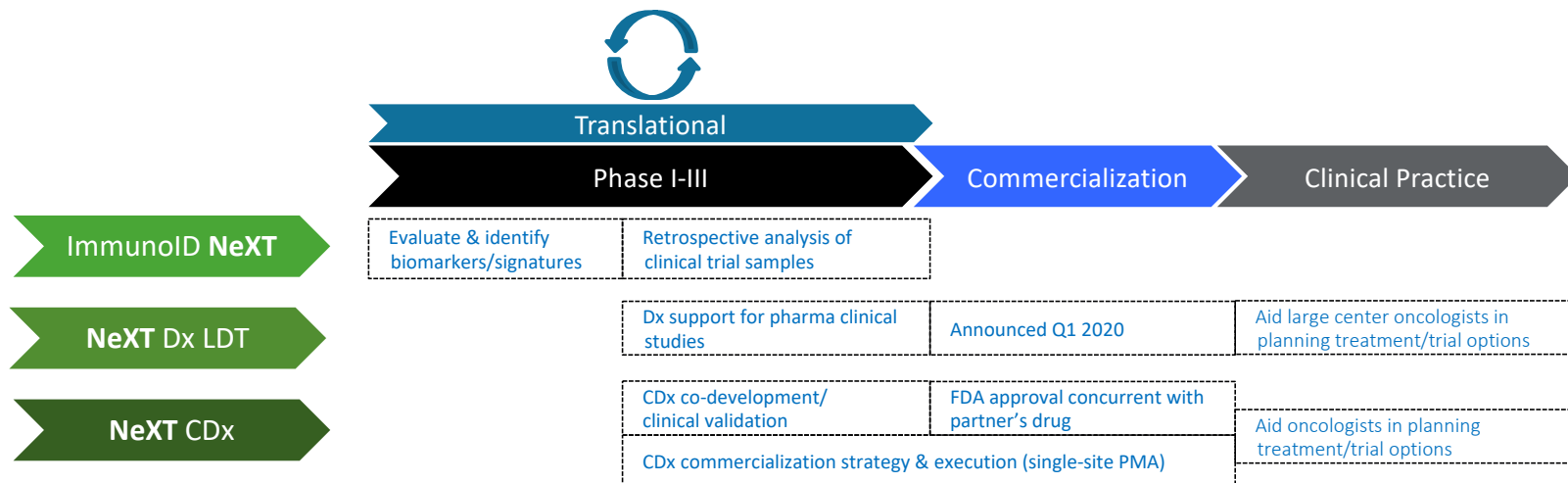


DASH Machine Learning HLA LOH Tool



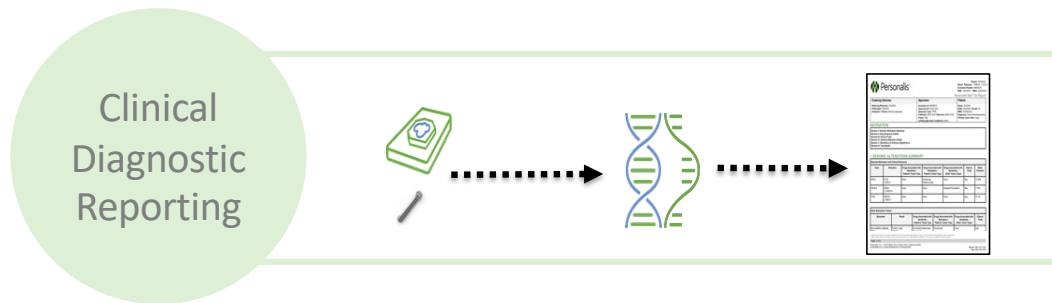
Figures from Personalis AACR 2020 Posters. Publication Manuscripts in Progress for the Above Findings.

Driving Pharma Diagnostics Opportunities with NeXT Dx and NeXT CDx

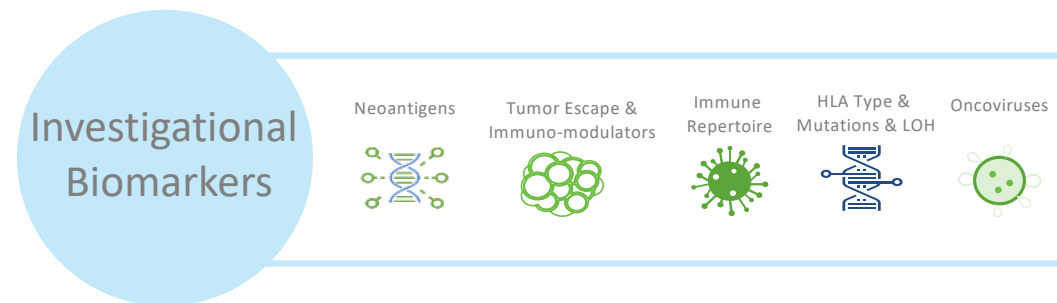


- Drive tighter relationships with Pharma and lead to additional translational business
- NeXT has the scalability to address today's markers and enable future I-O markers on a single platform

NeXT Dx : Diagnostic for Today, Data for the Future, from One Test

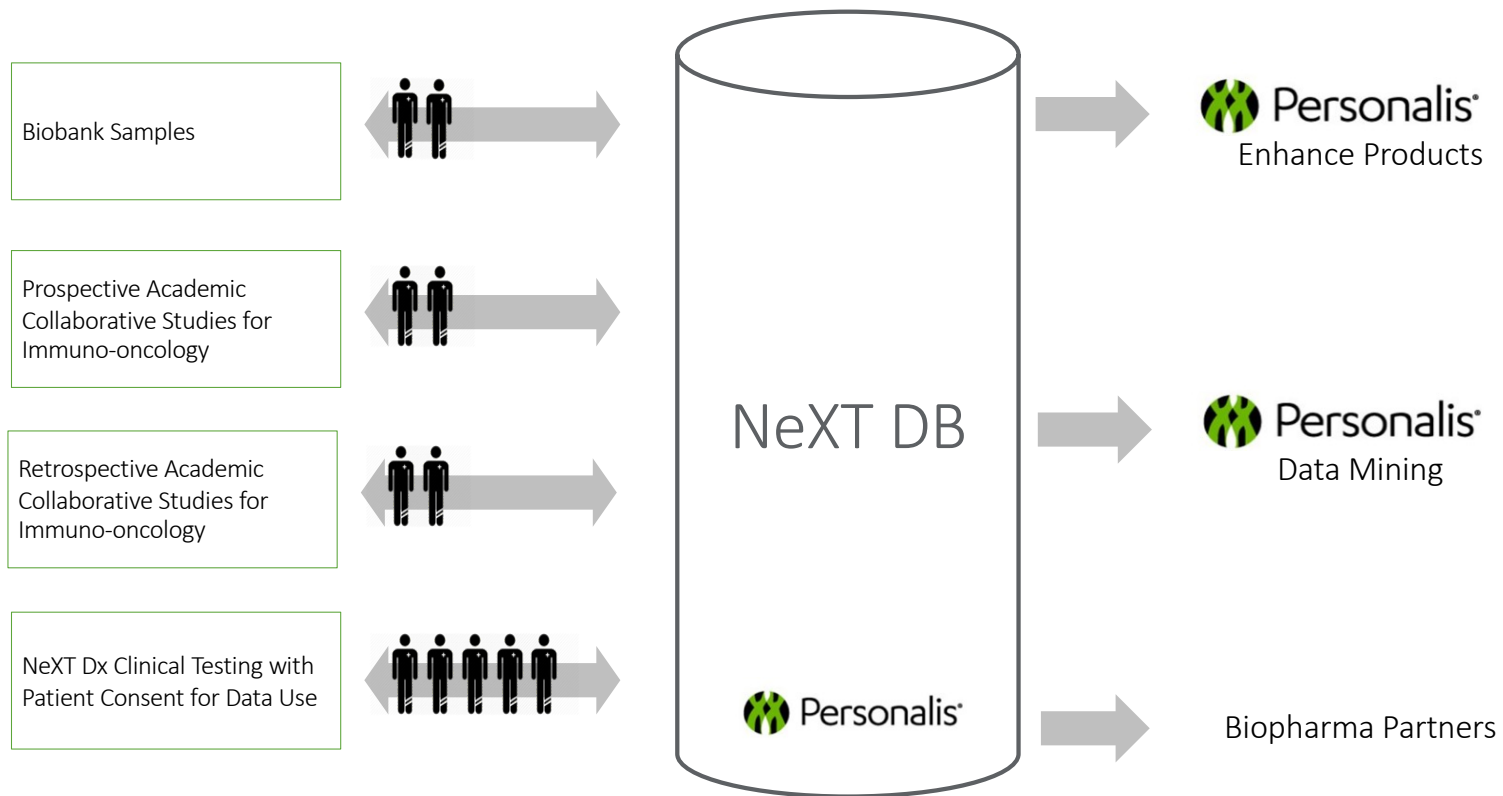


- Comprehensive diagnostic report
 - FDA approved drugs
 - Clinical trials matching
 - Small variants, fusions, CNVs
 - MSI, TMB
- Advanced features
 - Enhanced sensitivity for SNV, Indels
 - Fusions from RNA
 - Matched normal option
 - TMB from Exome



- Advanced cancer care
- Translational research
- Clinical studies
- Clinical trials
- Clinico-genomic database

NeXT Dx is a Catalyst for Building NeXT DB Tumor Immuno-genomics Database



Population Sequencing



Population Sequencing – U.S. VA Million Veteran Program

Research program to help improve the lives of Veterans and is in a very early stage

National research program to learn how genes, lifestyle, and military exposures affect health and illness.

- Enrolling veterans nationwide at a rate of approximately 100,000 a year
- 825,000 veterans enrolled in program to-date
- Overall enrollment goal has recently been increased to 2 million veterans¹



* As of March 2020, the VA MVP temporarily suspended sample collection due to the COVID-19 pandemic

Personalis is the Whole Genome Sequencing Provider to U.S. VA Million Veteran Program

Long-term partner

Working together since 2012 with approximately \$175M of orders as of September 2020

Significant customer offering stability and scale

2020 Revenue of \$56.1M

1Q'21 Revenue of \$13.2M

Personalis is currently contracted

to deliver ~147,000 samples;
has completed 115,000+ to date



**MILLION
VETERAN
PROGRAM**

DISCOVERY ★ INNOVATION ★ ADVANCEMENT

We have leveraged this experience sequencing germline whole genomes to introduce (2019) whole genome sequencing for cancer. We plan to leverage this further as a future option to detect ~20x more variants for NeXT Personal.

VA MVP Research – An Example of How Data is Used

VA research during the COVID-19 pandemic

In response to the COVID-19 pandemic, VA Research has undertaken a wide array of activities to support and advance VA's clinical and research missions and help Veterans affected by the disease. These efforts have focused on establishing and taking part in **clinical trials** and **data analysis projects** aimed at understanding and treating the disease. VA Research has coordinated closely with internal VA and external partners—such as other federal agencies, and pharmaceutical companies—to identify the areas in which VA's nationwide research capacity, resources, and infrastructure could make the greatest contribution

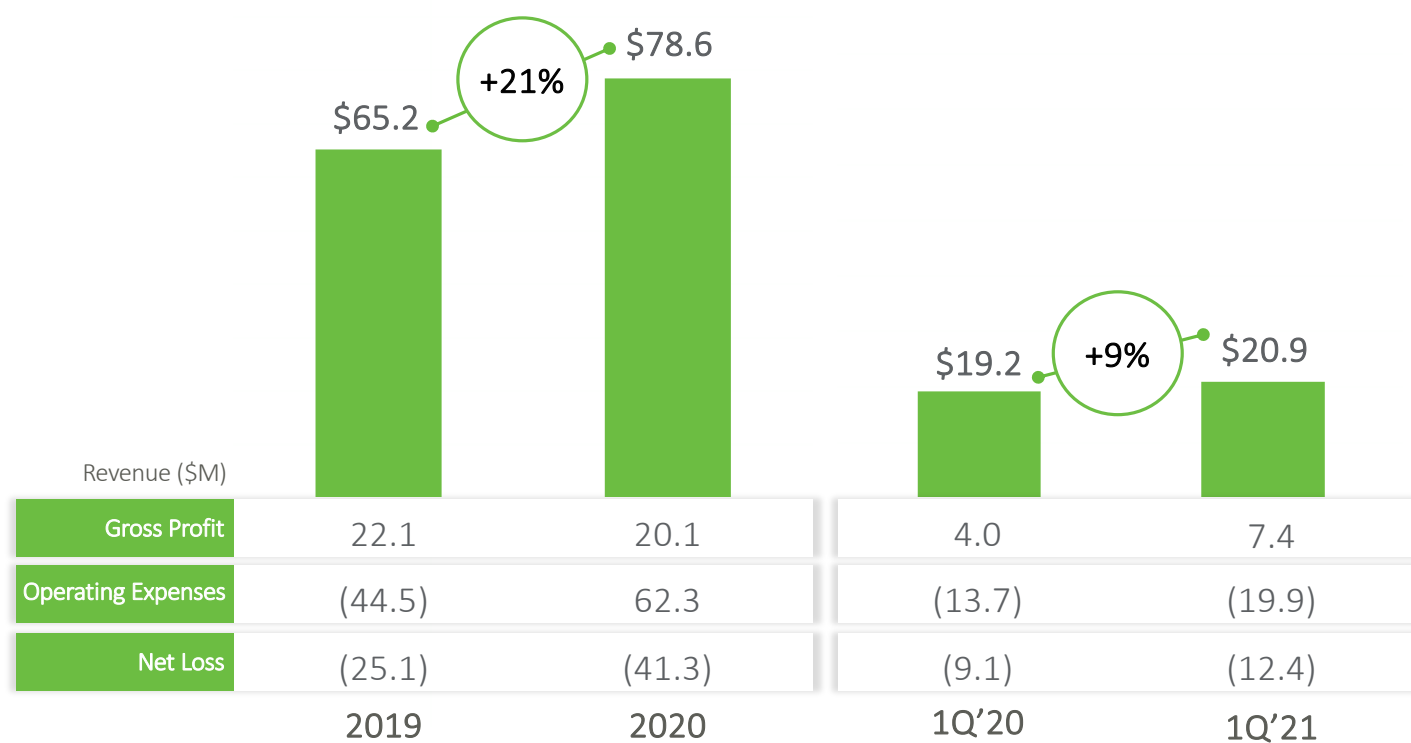
COVID-19 Data Analysis Project

- VA MVP has a racially and ethnically diverse participant population (~20% African American and 7% Hispanic); will analyze the influence of race and ethnicity on disease susceptibility, severity, and outcomes will be an integral part of the analyses.
- Examine the genetic basis of infection by SARS CoV-2;
- Complications of infection;
- Disease severity and outcomes;
- Identify disease mechanisms and new treatment targets for COVID-19

Financials



Strong Financial Profile and Historical Growth

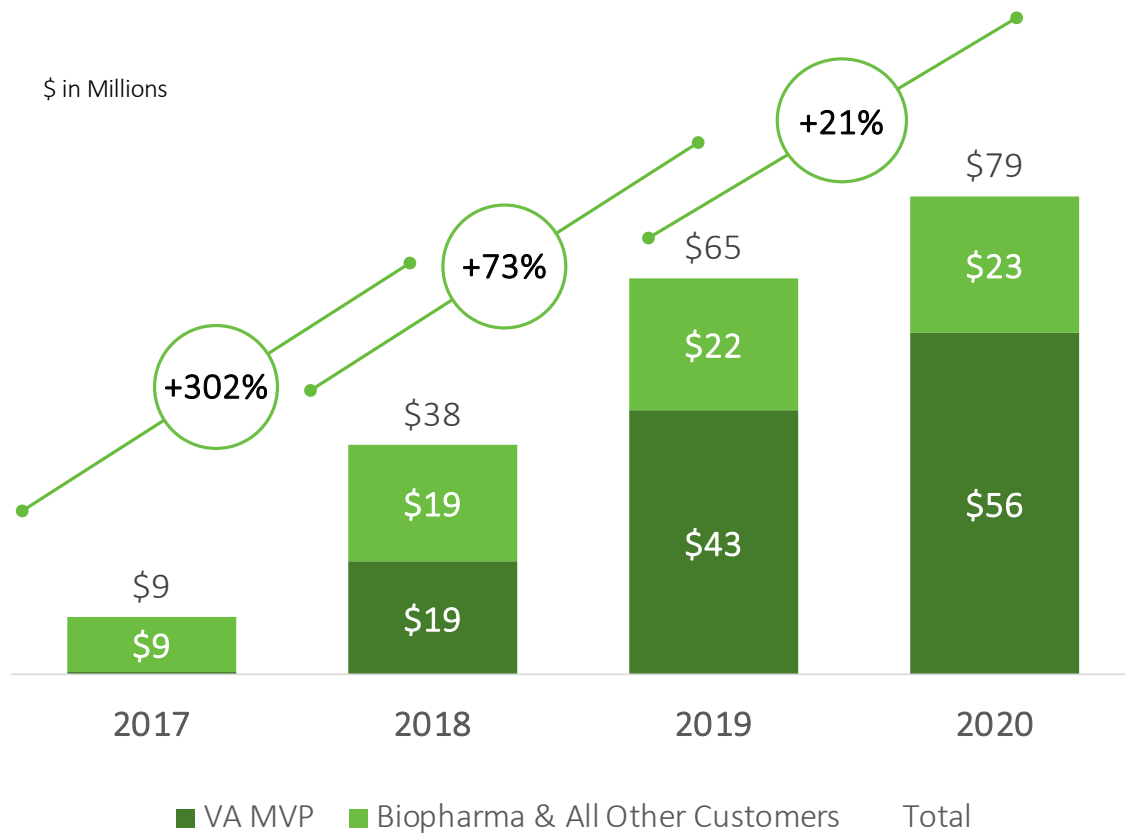


1Q'21 Balance Sheet

Total Cash¹: \$353M

No Debt

Personalis Revenue Growth



Q1 2021 Overview

Biopharma & All Other Customers

Q1 2021: \$7.7M, +74% Y/Y

Strong customer orders Q3 '19 – Q1 '21 following introduction of our NeXT platform

Population Sequencing (includes VA MVP)

Q1 2021: \$ 13.2M

Samples already received for processing during the next 2+ quarters