



Investor PresentationMay 2020

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 report on Form 10-K and subsequent filings 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.

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 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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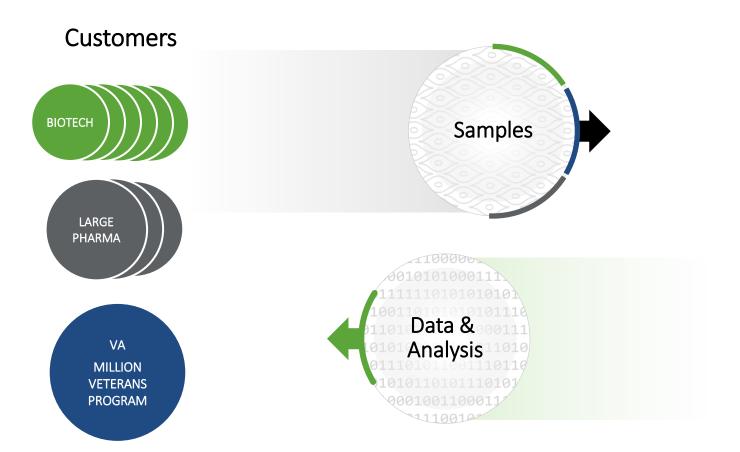
Cancer drug development is increasingly about data...

... 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







Proprietary Sample Prep & Chemistry



Proprietary Sequencing Methods

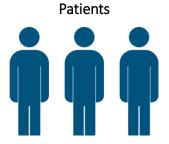


Machine Learning and Analytics



Personalis is Transforming the Development of Next-Generation Cancer Therapies

Providing biopharma with more comprehensive molecular data about patient tumors



Tumor Tissue Samples



Comprehensive Molecular Data

Customer Base

Rapid Growth

Large Market

~20,000
TUMOR GENES + IMMUNE SYSTEM

50+

BIOPHARMA CUSTOMERS NO REIMBURSEMENT

2019 REVENUE: **\$65.2MM** (73% YoY) 1Q'20 REVENUE: \$19.2MM (36% YoY)

WITH CAPITAL-EFFICIENT BUSINESS MODEL

\$5 billion
ESTIMATED INITIAL TAM WITH
BIOPHARMA CUSTOMERS¹



Biopharma Customers are Using Molecular Data to Address a Large Opportunity

Significant End Market

\$133 Billion

Annual spend on cancer therapies and supportive care drugs for cancer¹

Biopharma is Committed

73%

Oncology therapeutics in development rely on biomarker data²

Benefits are Promising

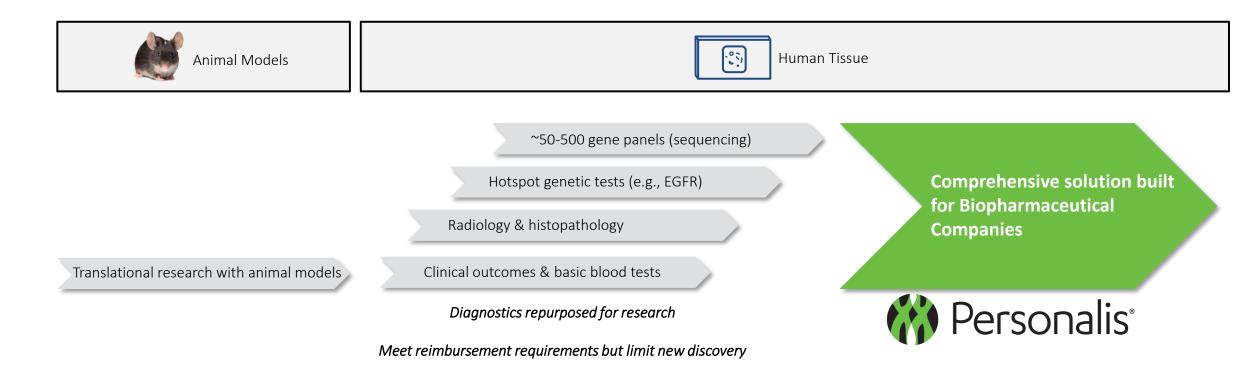
3x

Increase in probability of success (Phase 1 → Approval) for therapies with biomarkers across all therapeutic types³



Personalis is Purpose-Built for Biopharma

Our comprehensive solution represents the next step in biopharmaceutical research



Platform Leadership Over Generations of Innovation

ACE Exome Technology

~20,000 genes

publications demonstrating leading exome

Launched in 2013

ACE ImmunoID

I-O Focused First Gen Platform Technology

Combined exome and transcriptome sequencing using ACE technology

Increased variant specificity and sensitivity

Launched November 2016

ACE ImmunoID for Personalized Cancer Therapy

ACF ImmunoID

for Biomarkers

identification

Platform extended for biomarker

ImmunogenomicsID for tumor and microenvironment

Platform extended for personalized therapy customers

NeoantigenID

Improved turn around time

Device master file with FDA

ImmunoID NeXT

Universal Cancer Immunogenomics Platform

Complete picture of cancer and immune genomics from a single sample

Applicable across I-O, targeted and personalized therapies

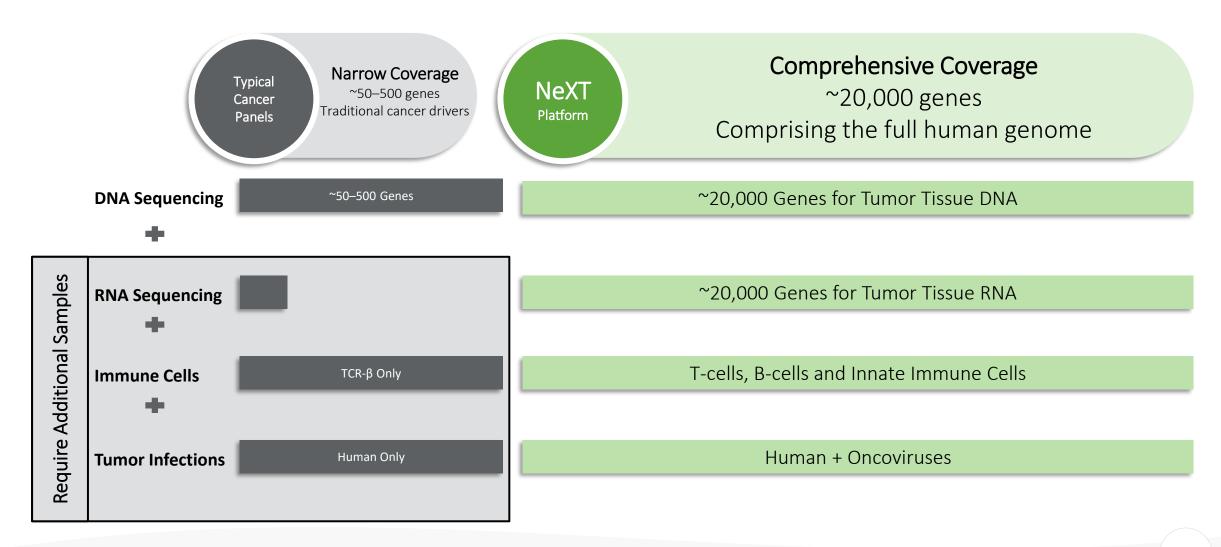
Announced in November 2018 Launched in 2019

Superior sequencing performance for

Genome Medicine and Nature Review performance



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

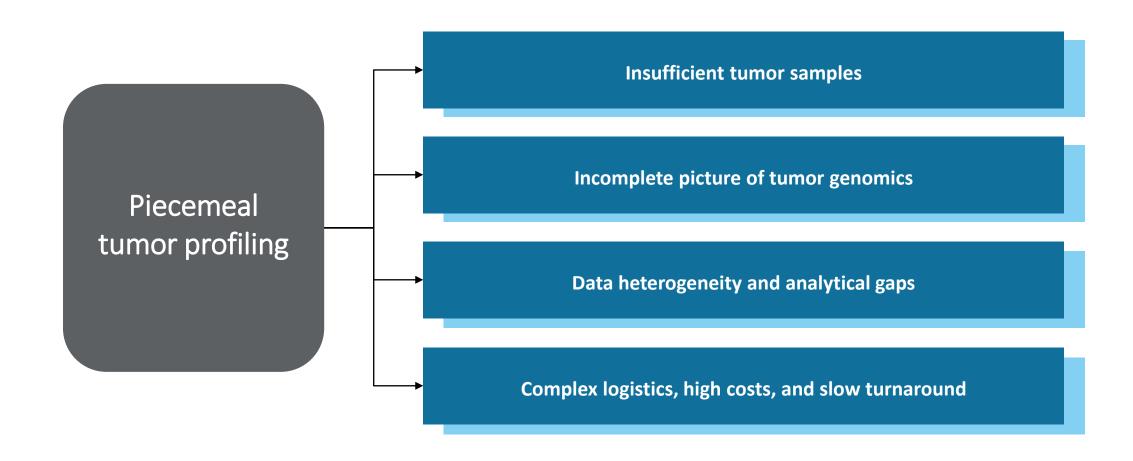
- Targeted Therapy Panel (often 50 to 500 genes)
- Neoantigen Identification from Exome
- Expression Data from Array
- TCR / Immune Cell Repertoire
- MSI-Testing
- Oncoviral Testing
- Remaining Sample, if any, Sent to Discovery and Translational Teams
- / HLA-Testing





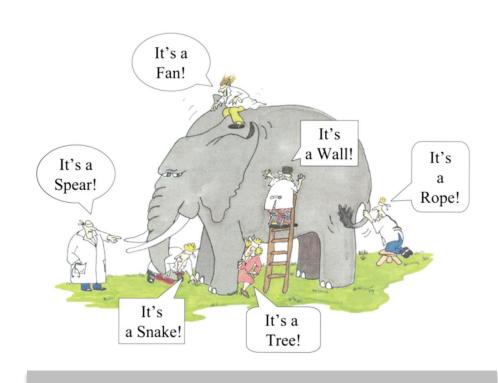


Patching Together a Profiling Solution with Multiple Offerings is Challenging...

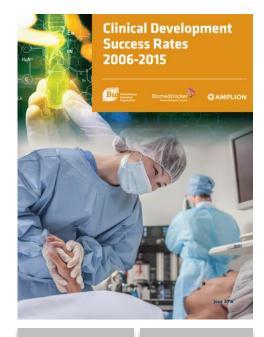




...Leading to an Incomplete Picture of Cancer and Low Rates of Success



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

Proprietary Assay and Analytics for the Many Elements of Tumor Biology

ImmunoID NeXT

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

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



engineered

cell lines

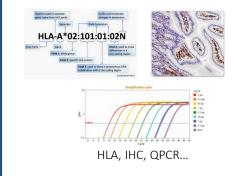


Mass spectrometry



Neoantigen prediction

Sequencing approach validated with orthogonal technologies



Foundation for regulatory compliance

Clinical & research collaborations



Demonstrate clinical utility of the platform

Growing database from patient samples



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

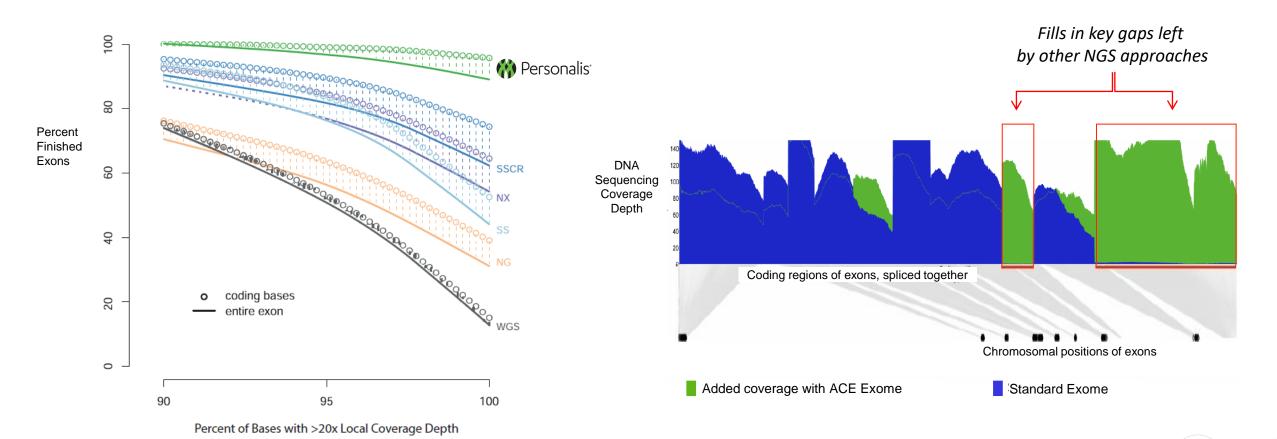


Proprietary Sequencing Methods Achieve Superior Coverage and Gene Finishing

Coverage, depth and accuracy are key in oncology

Superior sequencing performance¹

Coverage of difficult-to-sequence gene regions



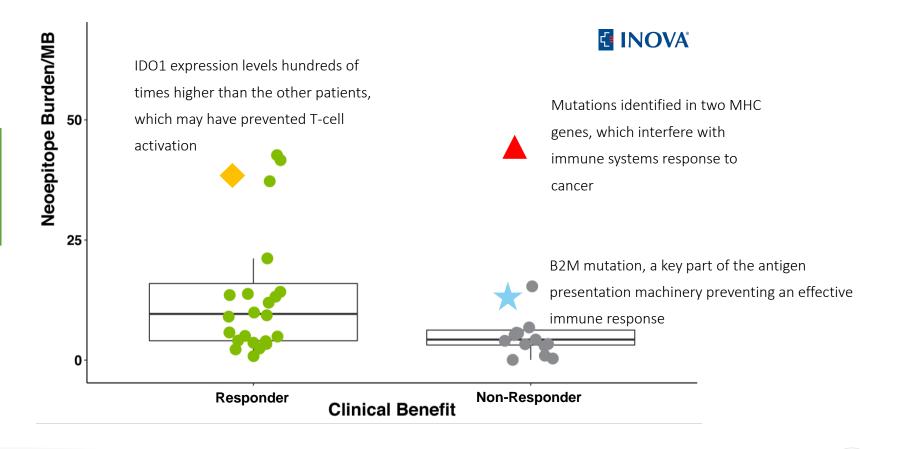


Comprehensiveness Allows Customers to Understand Why Patients Respond

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



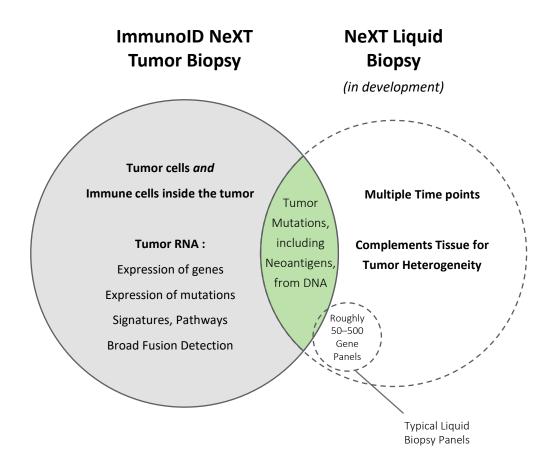


Developing Liquid Biopsy Capabilities to Complement Tissue Sample Insights

Purpose-built for pharma clinical research

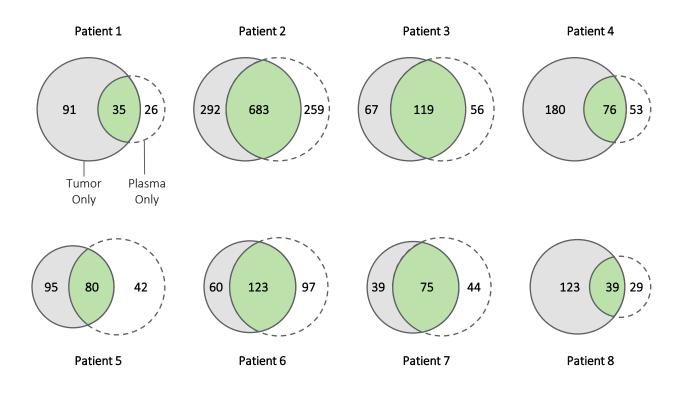
~ 20,000 genes in both tissue and liquid biopsy versions

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





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.



Our Customer Applications – Biopharma Companies



Immunotherapies

Platform provides comprehensive insights on tumor **and** immune biology



Targeted Therapies

Patient's genomic and immune profile critical for pharma R&D



Personalized Cancer Therapies

Information we provide can be used to design individually tailored therapies



Population Sequencing – U.S. VA Million Veteran Program

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 todate
- 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 \$145M of orders to date

Significant customer offering stability and scale

2019A Revenue of \$43.5M 1Q'20 Revenue of \$14.8M

Personalis is currently contracted

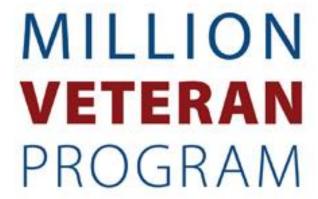
to deliver ~100,000 samples

Awards to date expected

to be revenue into early 2021 (\$54.0M backlog)¹

Contracted to 2022 and potential for additional orders







Offers key experience as cancer analysis eventually moves to whole genome



Market Opportunity Grows as Use Increases

Tissue & cfDNA Analysis¹ \$5B+

Diagnostics² \$14B+ Personalized
Therapeutics³
\$40B+

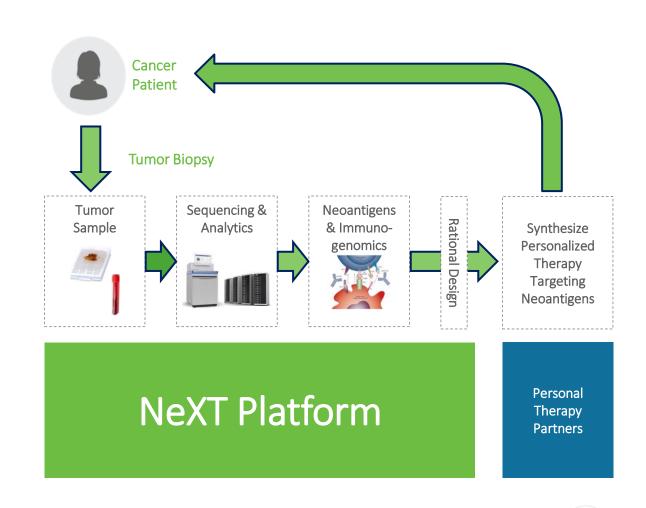
Current

Future Opportunity



Personalis Provides Information that May Be Used in Personalized Cancer Therapies

- We believe we are working with the majority of companies developing neoantigen-targeted personalized cancer therapies
- Involved in first-in-human clinical trials
- Addresses key challenges with unique technology
 - Seeing more neoantigens
 - Predicting which neoantigens will be immunogenic
 - Comprehensive immuno-genomic biomarkers
- Rapid turnaround time
- >95% success rate with samples¹
- Personalis' FDA Device Master File enables long-term success with our customers
- Potential to derive revenue in connection with the sale of personalized therapeutics developed using our platform

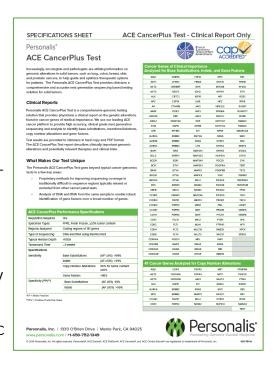




What's Next?

Develop NeXT as a Clinical Diagnostic Platform

- Clinical diagnostic test built for advanced immuno-therapies
- Genes related to classic targeted therapies boosted to > 1,000x coverage
- Initial clinical interpretation builds on three years of experience with our earlier targeted-therapy panelbased test
- Platform to work with pharma and collaborators to build clinical utility evidence with advanced therapies
- Long-term upside as the diagnostic platform of next-generation IO



Build a Tumor Immuno-Genomics Database

Personalis "Genomics Engine" for Personalized Cancer Vaccine & Adoptive Cell Therapy Development



100's-1,000's of patients

Personalis Universal Biomarker Platform for all Immuno-oncology and Combination Clinical Trials



10,000's of patients

Personalis Universal Diagnostic for Cancer Patients (IO, TT, PCV, P-ACT)



100,000's of patients



Immuno-genomics DB

- Cancer Cells and Immune Cells
- Adaptive and Innate Immune Systems
- Human and Oncoviral Genomics
- 20,000 Genes
- ACE Exome and Transcriptome
- Neoantigens &Escape
 Mechanisms
- Exome-scale TMB
- HLA & Antigen Presenting Machinery
- Microsatellite Instability (MSI)
- Cancer Drivers
- Targeted Therapy Targets

Data from 100,000's of patients

Novel Cancer Therapeutic Insights
Drive Therapeutic Development



Strong Financial Profile and Historical Growth



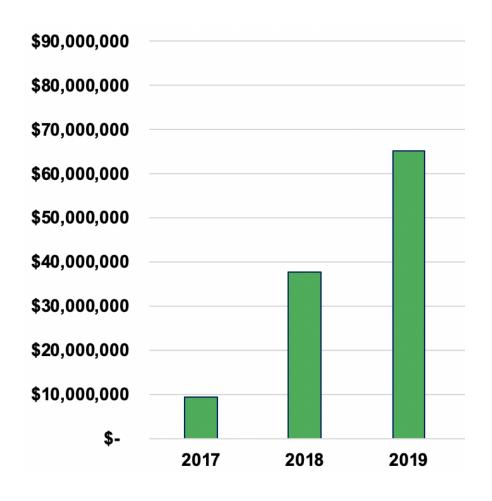
1Q '20 Balance Sheet

Total Cash¹: \$120.0M

No Debt

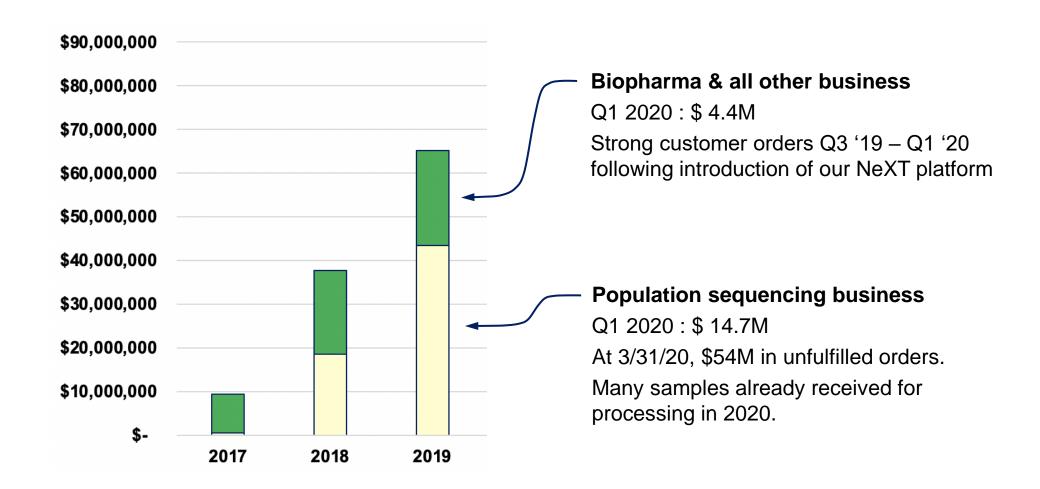
Customer Deposit Liabilities: \$34.4M²

Personalis Revenue Growth 2017 - 2019





Personalis Revenue Growth





COVID-19 Update

- On March 13th, the majority of our employees were instructed to work from home, with the exception of those needed to keep laboratory operations running
- On March 16th, health officers for several counties within the San Francisco Bay Area issued an order for individuals to "shelter at their place of residence" due to concern over COVID-19 "; on March 19th, the Governor of California and the state public health authorities ordered all individuals living in the State of California to stay at their place of residence for an indefinite period of time (subject to certain exceptions to facilitate authorized necessary activities) to mitigate the impact of the COVID-19 pandemic
- Some of our customers have been affected and others are still operating
- Given the uncertainty, we withdrew and suspended our 2020 revenue guidance during our March 25, 2020 earnings call and did not provide 2020 revenue guidance during our May 7, 2020 earnings call
- We plan to update the investment community again on our next earnings call
- In addition, an advisory committee of our Board of Directors has been formed to oversee and advise on our COVID-19 response and
 is meeting regularly



Experienced Leadership Team



John West

President, Chief Executive Officer & Director









Richard Chen, M.D., M.S. Chief Scientific Officer

Stanford Medicine









LYNX





	O	,	Wedene
MA	NAGEMENT TEAM		
Chr	istian Haudenschild	, Ph.D.	VP Operations
Ste	ohane Mouradian		VP Business Development
Car	ol Tillis		VP Finance and Administration
Ren	a McClory, Ph.D.		VP Marketing
Lloy	d Hsu		VP Software Engineering
Xav	ier Paliard, PharmD	, Ph.D.	VP Immunology and R&D





PACIFIC BIOSCIENCES®



SoleXa

Caliper

































Operational Excellence

100,000+ human samples

of anticipated current capacity annually

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

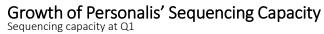
in Menlo Park, CA

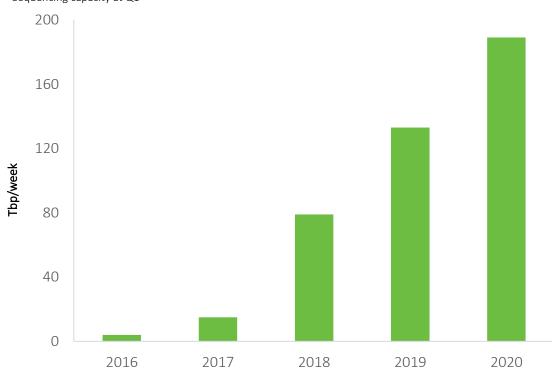
Over 185 employees

Specialized commercial team has grown 50% since IPO

Intellectual Property Protections

including 10 issued U.S. and 2 issued foreign patents





Equipment sequencing capacity as of Q1 each year



Key Upcoming Milestones

Planned new product launches

Growing proprietary content to drive further product differentiation

Customer & collaboration results to increasingly demonstrate clinical utility

- Continue to receive orders for ImmunoID NeXT in 2020 with revenue in 2nd half of 2020 and beyond
- Exome-scale cell-free DNA liquid biopsy for neoantigens to be launched in 2020

- Mass spec data for HLA-peptide binding
- Immuno-genomics database reaches scale to benefit biopharma customers
- Expect to demonstrate neoantigen and tumor escape dynamics using exomescale cell free DNA assay
- Potential for use as companion diagnostic to better understand a patient's therapeutic response to checkpoint inhibitors
- Potential for personalized therapy customers to demonstrate efficacy using adoptive cell therapies & cancer vaccines



Cancer Drug Development is Increasingly About Data...

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



"Genomics Engine" for Next-Generation Cancer Therapies

Covers all ~20,000 human genes and the immune system from a single tumor tissue sample

Purpose-built for biopharma to help better understand cancer

Complementary liquid biopsy assay with broad 20,000-gene coverage in development



Positioned to Capitalize on Major Trends in Oncology R&D

Molecular data from cancer patients is increasingly used to develop therapeutics

Current molecular profiling panels only cover ~50-500 genes and miss critical tumor and immune biology

Immunotherapies, targeted therapies and personalized cancer medicines require more comprehensive genomic profiling



Potential to Unlock Value in Massive Markets

\$5Bn estimated initial addressable market for biopharmaceutical customer R&D

\$14Bn estimated addressable future market for diagnostic opportunity

\$40Bn estimated addressable future market based on commercialization of personalized therapeutics



Strong Financial Profile and Historical Growth

Strong historical revenue growth

Initial commercial model not subject to any reimbursement from payors

More than 50 biopharmaceutical customers since inception

VA MVP is a significant customer offering scale and stability

Highly targeted enterprise sales model



Endnotes

Page 5:

1. Number of patients and clinical trials are based on data from the U.S. National Library of Medicine, ClinicalTrials.gov, January 2019; assumes that patients in such clinical trials will receive one tumor biopsy test and three liquid biopsy tests over the course of a clinical trial, and the cost of tumor and liquid biopsy tests will be \$5,000 and \$7,000 on average, respectively

Page 6:

- IQVIA MIDAS; IQVIA Institute, Dec 2017
- 2. Tufts CSDD "Personalized Medicine is Gaining Traction, but Faces Multiple Challenges" (14-May-2015)
- 3. Biotechnology Innovation Organization (BIO), Biomedtracker, and Amplion "Clinical Development Success Rates 2006-2015" (Jun-2016)

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1. Biotechnology Innovation Organization (BIO), Biomedtracker, and Amplion "Clinical Development Success Rates 2006-2015" (Jun-2016)

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1. Patwardhan et al. Genome Med. 2015

Page 16:

1. Biopharmaceutical Industry-Sponsored Clinical Trials: Impact on State Economies, 2013

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1.. Based upon information from FedHealthIT.com article dated May 5, 2020 https://www.fedhealthit.com/2020/05/va-to-award-million-veteran-program-mvp-support-contract/

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1. As of March 31, 2020, the remaining performance obligations under contracts for which revenues are expected to be recognized over approximately the next four quarters was \$54.0 million.

Page 22:

- 1. Number of patients and clinical trials are based on data from the U.S. National Library of Medicine, ClinicalTrials.gov, January 2019; assumes that patients in such clinical trials will receive one tumor biopsy tests over the course of a clinical trial, and the cost of tumor and liquid biopsy tests will be \$5,000 and \$7,000 on average, respectively
- 2. Based on a combination of data derived from the American Cancer Society, Cancer Facts and Figures 2018, 2018, American Cancer Society, Cancer Facts and Figures 2019, 2019, and a review article from the European Journal of Cancer, Cancer incidence and mortality patterns in Europe: Estimates for 40 countries and 25 major cancers in 2018, August 9, 2018. We assume that pre-diagnosis cancer patients will receive one oncology clinical diagnostic test to inform their treatment strategy or to identify clinical trial enrollment opportunities, and the cost per test will be \$3,000 on average, which we believe is in line with current cancer panels.
- 3. Based on a combination of data derived from Public Health Faculty Publications, SEER Cancer Statistics Review, 1975-2015 (only data relating to cancer cases diagnosed— and the respective stage of disease upon diagnosis—from 2008 to 2014 was used for our purposes), American Cancer Society, Cancer Facts and Figures 2018, 2018, American Cancer Society, Cancer Facts and Figures 2019, 2019, and a review article from the European Journal of Cancer, Cancer incidence and mortality patterns in Europe: Estimates for 40 countries and 25 major cancers in 2018, August 9, 2018. We assume that personalized cancer therapy patients will receive one tumor biopsy test and three liquid biopsy tests over the course of a clinical trial or treatment, with the average cost per test being the same as is outlined above in the United States and \$3,000 and \$4,200 on average per test, respectively, in the European Union.

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1. For prospectively collected FFPE samples with our personalized therapy partners, we achieve a greater than 95% success rate for obtaining high-quality data from tumor samples received from personalized cancer therapy customers due to our optimized nucleic acid extraction protocols

Page 25:

- Abbreviated for "Cash, Cash Equivalents, and ST Investments"
- 2. Represents customer deposits for the prepayment of a portion of services that the customer expects to order from us. If a customer that has prepaid us for future services cancels its contract with us or reduces the level of services that it expects to receive, we would generally be required to repay that customer's deposit

Page 30:

1. We maintain a current license with the New York State Department of Health for our laboratory



e have filed appeyice Master File with the FDA