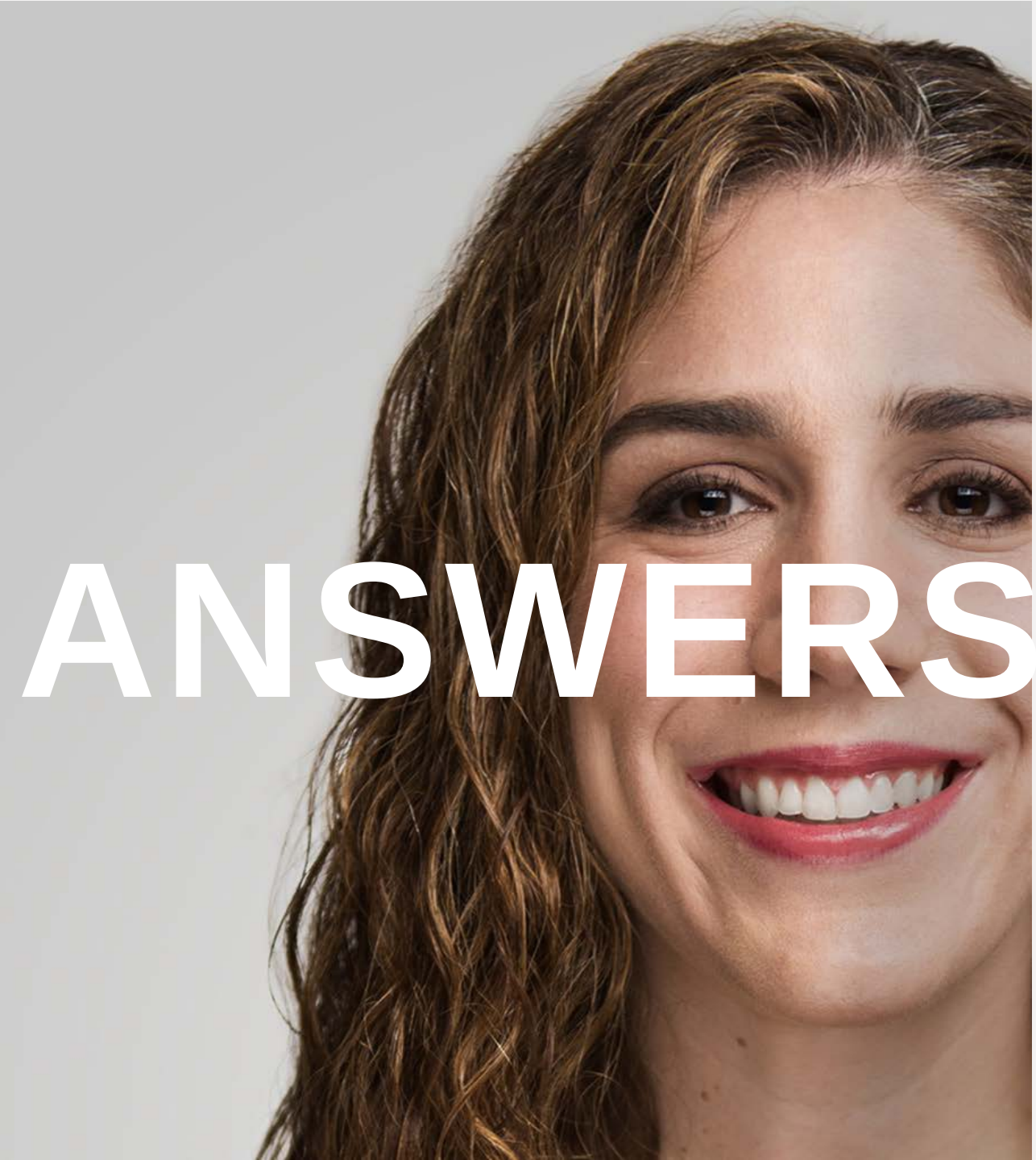


ANSWERS

veracyte

Morgan Stanley Healthcare Conference

September 10, 2019

Forward-Looking Statements

This presentation contains statements that are not historical and that are based on our beliefs and assumptions and on information currently available to us. These statements constitute forward-looking statements within the meaning of the Safe Harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are subject to known and unknown risks, uncertainties, assumptions, and other factors that could cause actual results to differ materially from our expectations.

Forward-looking statements can be identified by words such as: "anticipate," "intend," "plan," "expect," "believe," "should," "may," "will" and similar references to future periods. Examples of forward-looking statements include, among others, statements we make regarding our ability to achieve milestones under the collaboration agreement with Johnson & Johnson; our ability to achieve and maintain Medicare coverage for our tests; the benefits of our tests and the applicability of clinical results to actual outcomes; the size of our addressable market; the laws and regulations applicable to our business, including potential regulation by the Food and Drug Administration or other regulatory bodies; our ability to successfully achieve and maintain adoption of and reimbursement for our products; the amount by which use of our products are able to reduce invasive procedures and misdiagnosis, and reduce healthcare costs; the occurrence and outcomes of clinical studies; the timing and publication of study results; the applicability of clinical results to actual outcomes; the continued application of clinical guidelines to our products and their inclusion in such clinical practice guidelines; our ability to compete; our ability to obtain capital when needed; and other risks set forth in our filings with the Securities and Exchange Commission, including the risks set forth in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2019. These forward-looking statements speak only as of the date hereof and Veracyte specifically disclaims any obligation to update these forward-looking statements.

A Genomics Leader Creating Value Through Innovation

FOUNDED WITH A MISSION TO IMPROVE DIAGNOSTIC ACCURACY
Expanding to advance early detection and inform treatment decisions

Comprehensive scientific approach using whole-transcriptome sequencing coupled with machine learning to develop diagnostic tests that we believe can change clinical care

Clinical evidence published in top-tier journals to facilitate test adoption, coverage and reimbursement

Market leader with first-to-market tests in large, untapped clinical areas: thyroid cancer, lung cancer and idiopathic pulmonary fibrosis (IPF)

Robust pipeline, including **non-invasive test for lung cancer,** and **biopharma partnerships** to augment future growth

Experienced management team with **deep expertise** and **proven track record**

Afirma® GENOMIC SEQUENCING CLASSIFIER

Percepta® GENOMIC SEQUENCING CLASSIFIER

Envisia™ GENOMIC CLASSIFIER

Execution Driving Momentum

Strong Commercial Growth

Driven by multi-product sales strategy

Revenue growth*
32%

Genomic test volume*
26%

- **Afirma** revenue grew by 16%*
- **Percepta** classifier volume increased 142%*
- **Envisia** volume increased to 130 tests from 5 in prior year

*2Q19 compared with 2Q18

Continued Reimbursement Expansion

All classifiers covered by Medicare
(Afirma, Percepta and Envisia)

Achieved in-network status with nearly all major U.S. health plans as a service provider

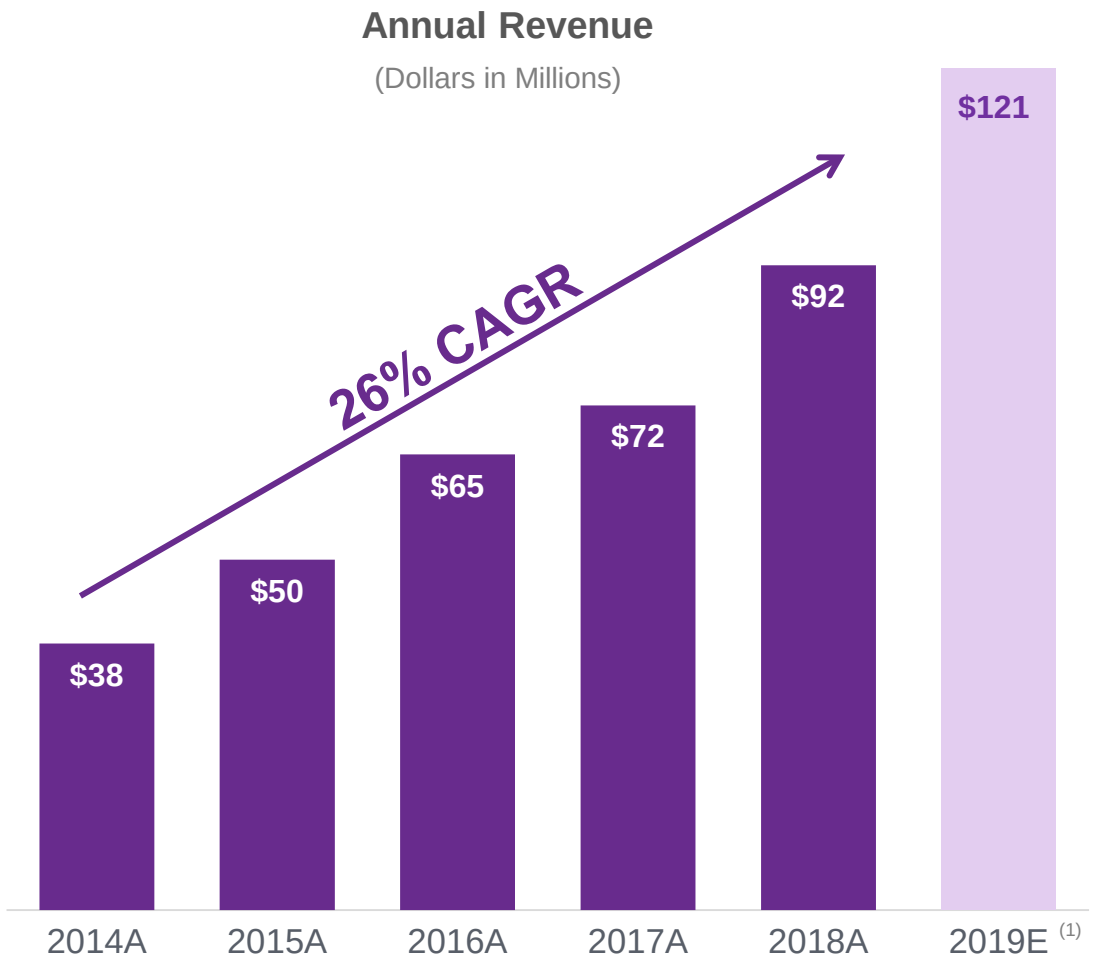
Strategic Collaborations

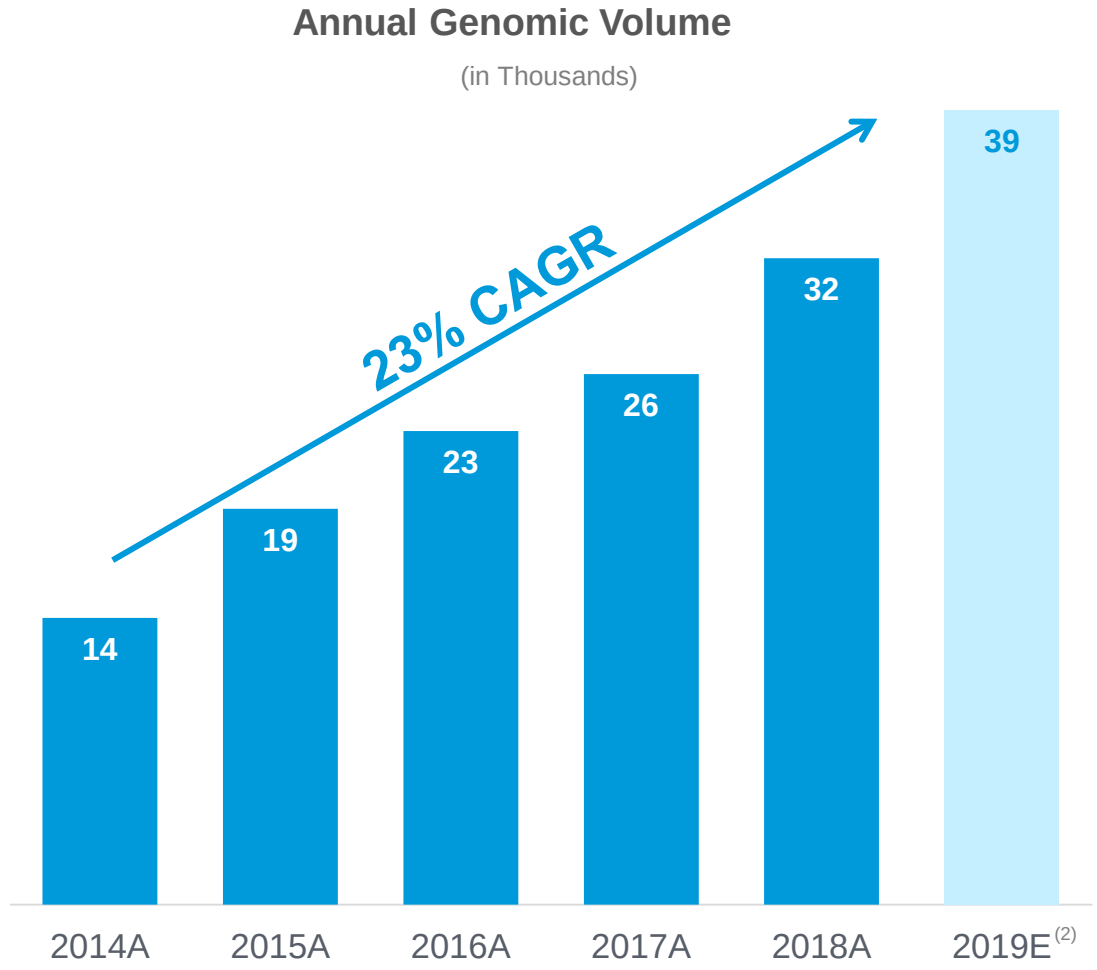
Advancing Pipeline and Driving Value Creation

Strategic collaboration with Johnson & Johnson

- **Launched** Percepta® Genomic Sequencing Classifier
- **Accelerating development** of first nasal swab test for early lung cancer detection
- Global addressable market for lung cancer estimated at more than $30 billion

Robust Annual Revenue and Genomic Volume Growth



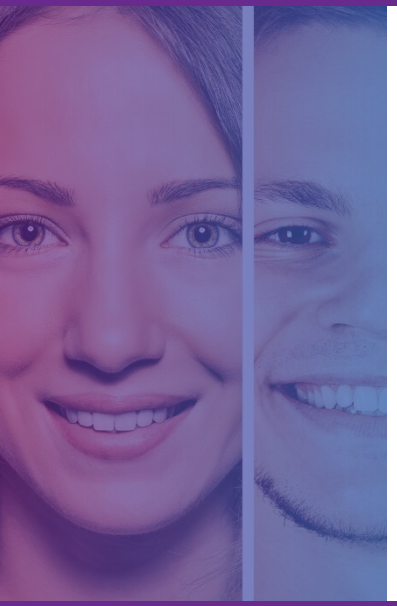


(1) Midpoint of 2019 revenue guidance as of July 30, 2019

(2) As of July 30, 2019, the $121 million midpoint of 2019 revenue guidance is supported by an estimated 20% to 25% growth in genomic test volume over 2018, or a midpoint of approximately 39,000 reported tests in 2019

Building on a Firm Foundation

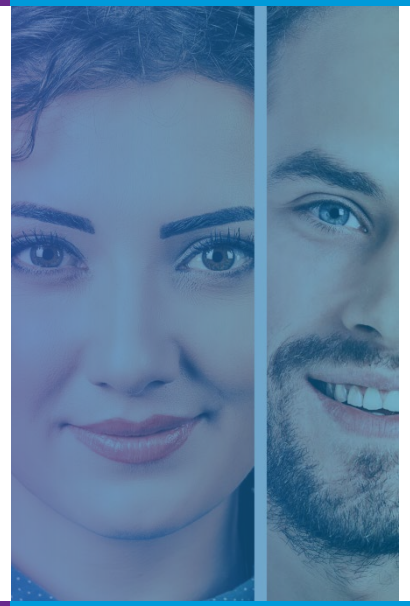
Following a Proven Formula for Success



Relevance

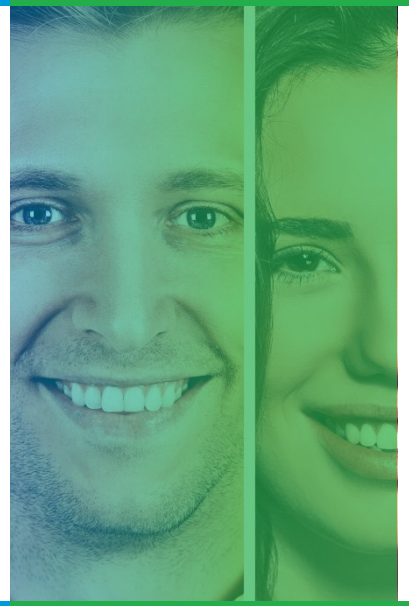
ANSWER QUESTIONS THAT MATTER!

INTEGRATE INTO CURRENT CARE PATHWAY TO CHANGE PRACTICE AND REDUCE COSTS



Rigor

BUILD ROBUST SCIENTIFIC AND CLINICAL EVIDENCE; INFORM GUIDELINES



Rationale

PROVIDE ANSWERS THAT CHANGE CARE WITH REAL CLINICAL UTILITY AND ECONOMIC VALUE

Reimbursement

Extensive experience and coverage policies with payors pave way for reimbursement expansion

A Powerful Scientific Platform: Multiple Vectors for Value Creation

DISCOVERY	DEVELOPMENT & VALIDATION	COMMERCIAL	BIOPHARMA
Unique Biorepositories	Proprietary Technology & Bioinformatics	Informing Clinical Questions	Monetizing Assets
Extensive Clinical Cohorts RNA Whole-Transcriptome Sequencing "Unified Assay"	Deep Machine Learning Genomic Variants "Xpression Atlas"	AFIRMA, PERCEPTA, ENVISIA "DIAGNOSTIC CLASSIFIERS" VARIANTS INFORM SURGICAL AND TREATMENT DECISIONS AT TIME OF DIAGNOSIS	New Target Discovery Clinical Trial Eligibility Treatment Selection

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Expanding Along the Value Chain

Screening | Early Detection | Diagnosis | Staging / Prognosis | Therapy Selection & Surgery | Monitoring

Thyroid

Afirma® GENOMIC SEQUENCING CLASSIFIER

Afirma® XPRESSION ATLAS

Lung Cancer

Percepta® GENOMIC SEQUENCING CLASSIFIER

ILD/IPF

Envisia™ GENOMIC CLASSIFIER

Pipeline Test

DELIVERING VALUE TO PATIENTS, CLINICIANS AND PAYORS ACROSS THE CLINICAL CARE CONTINUUM

veracyte®

Leading in the Age of Evidence

Deep library of clinical evidence published in top-tier journals

Afirma THYROID FNA ANALYSIS	Percepta BRONCHIAL GENOMIC CLASSIFIER	Envisia GENOMIC CLASSIFIER
3 clinical validation	**2** clinical validation	**3** clinical validation
2 analytical verification	**1** analytical verification	**1** analytical verification
24 clinical utility, including **3** long-term clinical outcome	**2** clinical utility	**1** clinical utility
2 cost-effectiveness and quality-of-life	**1** cost-effectiveness	BRAVE ongoing clinical trial **~ 450 patients**
	PERCEPTA Registry with **~ 775 enrolled patients**	
The NEW ENGLAND JOURNAL of MEDICINE	The NEW ENGLAND JOURNAL of MEDICINE	THE LANCET Respiratory Medicine

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Highly Efficient Commercial Model

Sales Structure

SALES SPECIALIST ACROSS ALL PRODUCTS,
PULMONARY CLINICAL EXPERTS,
ACCOUNT SPECIALISTS FOR TOP ACCOUNTS

Evidence

SCIENTIFIC RIGOR FOCUSED ON
GENERATING DATA, PUBLICATIONS,
GUIDELINES AND COMMERCIAL ADOPTION

Reimbursement

IN-NETWORK STATUS
WITH NEARLY ALL
MAJOR U.S. HEALTH PLANS

EXPECT TO ACHIEVE OPERATING CASH FLOW BREAKEVEN BEFORE END OF 2019

Our Founding Strategy: Improve Diagnostic Accuracy

Hundreds of thousands of patients evaluated for suspected disease

IMAGING AND/OR BIOPSIES

↓

Diagnosis Uncertain*

15% to 70%

Robust Market Opportunity Across Multiple Diseases

Thyroid Cancer

$840MM

Global Market Opportunity

Afirma GENOMIC SEQUENCING CLASSIFIER

$500MM

Percepta GENOMIC SEQUENCING CLASSIFIER

U.S. Market Opportunity

Lung Cancer

$30BN

Global Lung Cancer Market Opportunity (1)

Idiopathic Pulmonary Fibrosis (IPF)

$560MM

U.S. + EU Market Opportunity

Envisia GENOMIC CLASSIFIER

Estimated market sizes based on Company estimates
(1) Market size based on Company estimates and includes nasal swab test for early detection

In Thyroid Cancer

An Incredibly Inefficient and Avoidable Diagnostic Paradigm

525K
FINE NEEDLE ASPIRATIONS PER YEAR TO EVALUATE THYROID NODULES

~15% to 30%
YIELD INCONCLUSIVE RESULTS

Majority
OF PATIENTS WITH INDETERMINATE RESULTS UNDERGO SURGERY

~75%
DEEMED BENIGN POST-OPERATIVELY

Challenging diagnosis with

100K +
UNNECESSARY SURGERIES PERFORMED IN U.S. ANNUALLY (1)

Source: Company estimates
(1) ~180k surgeries performed to diagnose ~60K cancers

Improving Patient Outcomes in Thyroid Cancer

525,000 patients in U.S. evaluated for suspected thyroid cancer annually

↓

Ultrasound-guided FNA

↓

Diagnosis Uncertain

>100,000

↓

Reduce Unnecessary surgeries by **~70%**

← Benign

Afirma® GENOMIC SEQUENCING CLASSIFIER

→ Suspicious

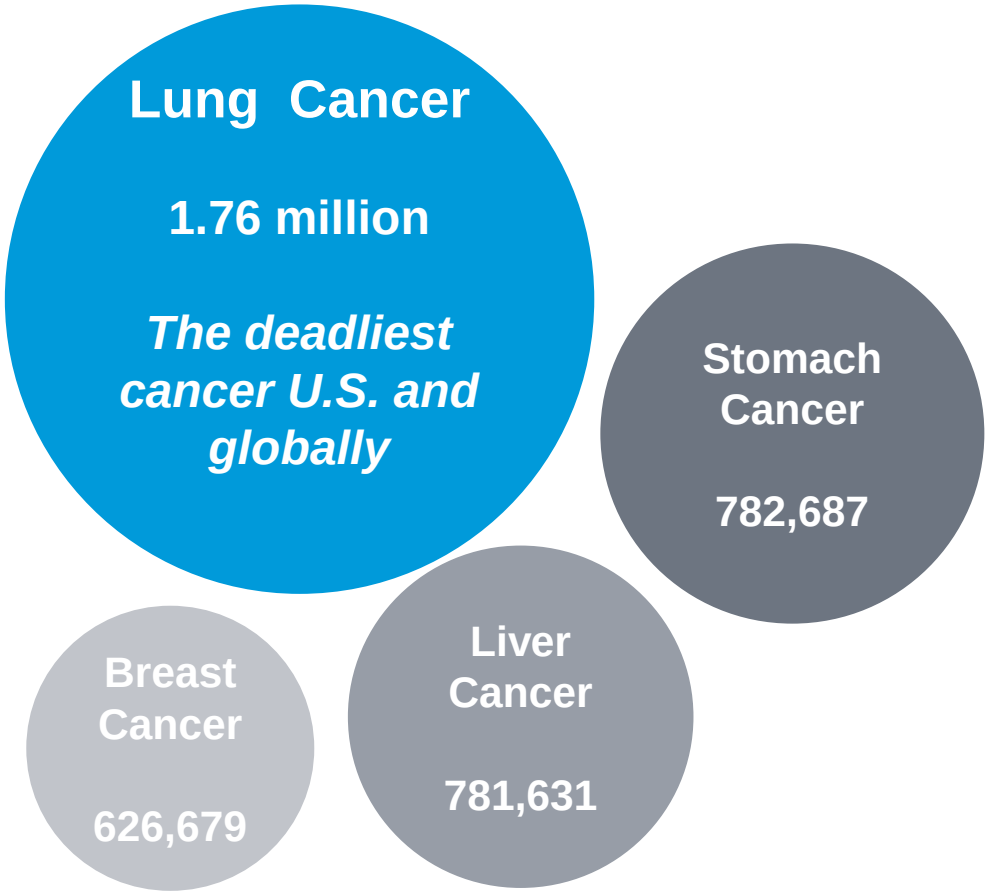
Xpression Atlas
Inform treatment decisions to improve patient outcomes

veracyte®

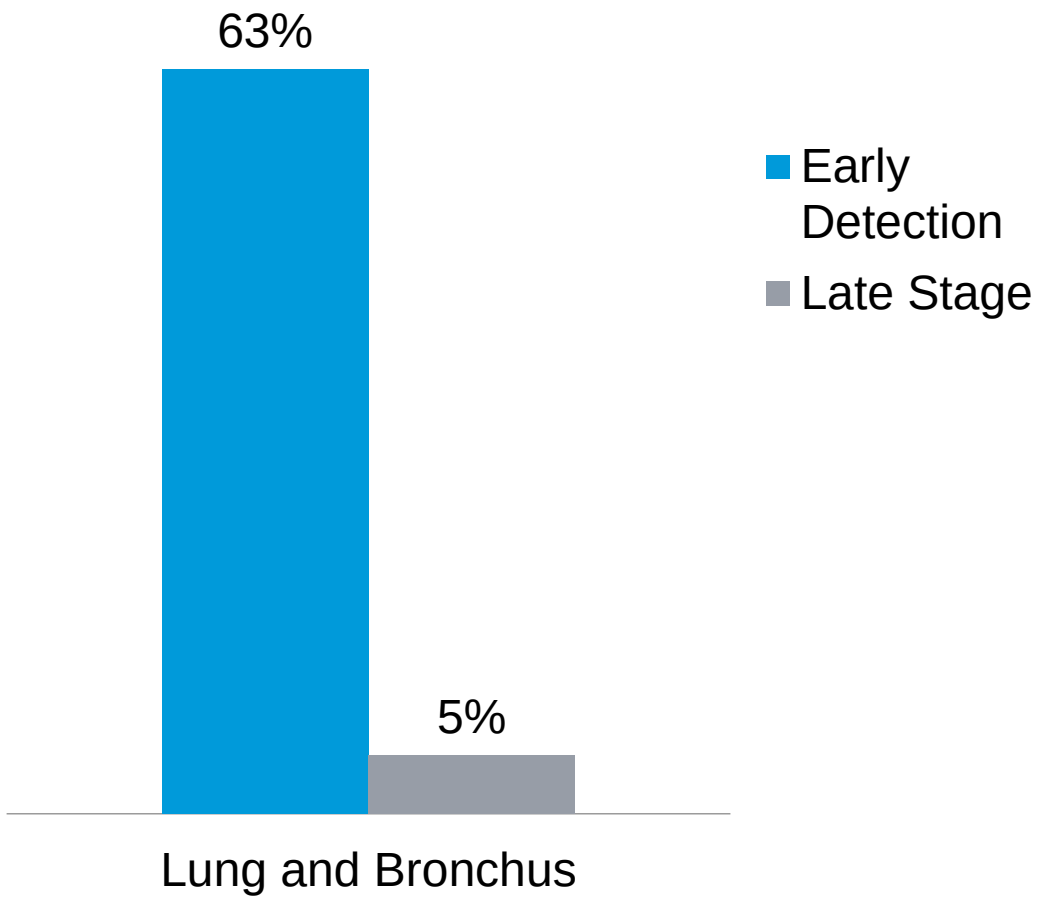
In Lung Cancer

Early Detection and Improved Diagnosis are Key to Saving Lives

Estimated Cancer Deaths Worldwide, 2018



Five-Year Survival Rate (1)



Sources: GLOBOCAN 2018, National Cancer Institute Surveillance, Epidemiology and End Results (SEER)

(1) "Early stage" includes invasive localized tumors that have not spread beyond organ of origin.
"Late stage" includes invasive cancers that have metastasized beyond the organ of origin to other parts of the body.

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Improving the Efficiency of Lung Cancer Diagnosis

1.8M to 2M lung lesions or nodules detected by CT scan in U.S. annually to find **~230,000** cancers

Low Clinical Risk

Low-dose CT Monitoring

Intermediate Clinical Risk
~80% of nodules biopsied

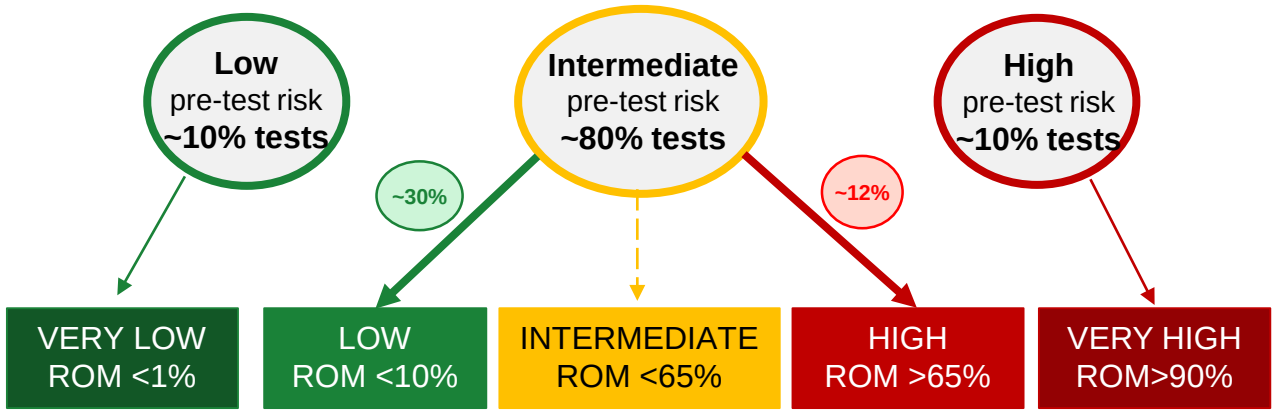
150,000 inconclusive bronchoscopy patients

Percepta
GENOMIC SEQUENCING CLASSIFIER

High Clinical Risk

Surgery (SLB) or Radiation

DOWN-CLASSIFYING RISK TO **SAFELY AVOID INVASIVE DIAGNOSTIC PROCEDURES**



UP-CLASSIFYING RISK TO CONFIDENTLY **DETERMINE APPROPRIATE NEXT STEPS TO DIAGNOSIS**

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In Idiopathic Pulmonary Fibrosis (IPF)

A Progressive, Life-Threatening, Interstitial Lung Disease

48,000

DEATHS GLOBALLY
EACH YEAR

Notoriously difficult to diagnose

LEADING TO TREATMENT DELAYS, PROLONGED MISDIAGNOSIS,
PATIENT DISTRESS AND ADDED HEALTHCARE EXPENSE

Median survival time 2.5 years

LIFE EXPECTANCY WITH IPF IS WORSE THAN THAT OF MANY CANCERS

IMPROVING DIAGNOSIS TO INFORM TREATMENT THAT COULD SAVE LIVES

Sources: American Lung Association; Ley B, et al. Clinical Course and Prediction of Survival in Idiopathic Pulmonary Fibrosis. *AJRCCM* 2011; Hutchison J, et al. Increasing Global Mortality from Idiopathic Pulmonary Fibrosis in the Twenty-First Century. *Annals ATS* 2014

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IPF: Accelerate Diagnosis to Get Patients Life-Extending Treatment Faster

~200,000 patients in U.S. and Europe evaluated for suspected ILD

↓

High Resolution CT

↓

Lack highly confident Dx

~150,000 up to 75%*

↓

Envisia™

GENOMIC CLASSIFIER

↓

Classic UIP pattern
improves confidence in
IPF diagnosis without surgery

* Based on Company estimates

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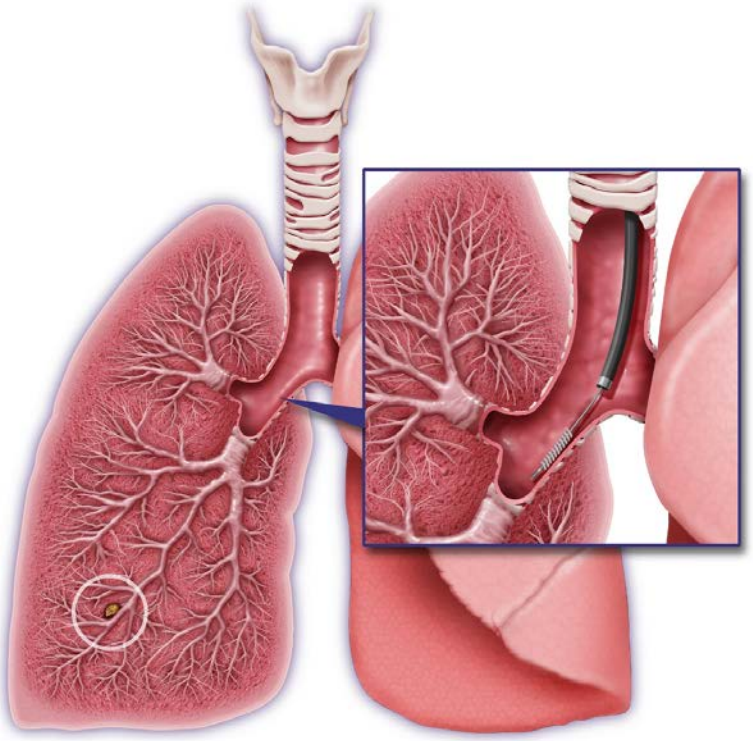
Pipeline Highlight: Nasal swab test for early lung cancer detection

Using novel, proprietary field of injury science that powers Percepta GENOMIC SEQUENCING CLASSIFIER



Peripheral lung nodules **difficult to biopsy** leading to **late-stage diagnosis**

Exposures such as smoking leads to genomic alterations in airway **detected from a simple brushing or swab**

Percepta classifier is based on bronchial airway brushing

New nasal swab test is designed to **detect lung cancer** from **genomic alterations in the nose**

JNCI

Shared Gene Expression Alterations in Nasal and Bronchial Epithelium for Lung Cancer Detection
- Perez-Rogers J, et al. *JNCI J Natl Inst. 2017*

NON-INVASIVE NASAL SWAB TEST DESIGNED FOR EARLY DETECTION TO SAVE LIVES

Strategic Collaboration Accelerates Pipeline and Expands Market Opportunity

veracyte™ + Johnson & Johnson

Accelerates two key programs for Veracyte:

- Nasal swab test designed for early lung cancer detection (expect preliminary data by end of 2019)

✓ Commercialization of second-generation Percepta classifier, deploying RNA whole-transcriptome sequencing platform

+$50M in monetary and non-monetary value*

*$20MM cash and estimated $30M value on cohorts

FURTHER STRENGTHENS OUR LEADING POSITION IN LUNG CANCER DIAGNOSIS

Experienced Team with Track Record of Success

Bonnie Anderson *Chairman and Chief Executive Officer*	Beckman Coulter
Keith Kennedy *Chief Financial Officer and Chief Operating Officer*	MCG, ACP, GE Capital
Giulia Kennedy, Ph.D. *Chief Scientific and Medical Officer*	Chiron, Millennium (The Takeda Oncology Company), affymetrix
John Hanna *Chief Commercial Officer*	IBM, Humana
Freddie Bowie, Ph.D. *Vice President, Corporate and Business Development*	Foundation Medicine, Danaher, BCG (The Boston Consulting Group)

Catalysts to Drive Continued Momentum in 2019

	Afirma® GENOMIC SEQUENCING CLASSIFIER	Percepta® BRONCHIAL GENOMIC CLASSIFIER	Envisia™ GENOMIC CLASSIFIER
Revenue Growth	✓ Afirma GSC and Xpression Atlas	✓ Launch of next-generation Percepta classifier in mid-2019	✓ Final Medicare coverage decision; commercial expansion
Evidence Development	✓ Ongoing real-world studies	✓ Spotlight clinical utility data	✓ Publication of clinical validation and utility data THE LANCET Respiratory Medicine
Pipeline Advancement		Field of injury advances; early data on nasal swab test	

✓ Achieved

 September 2019

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VCYT: A Compelling Value Proposition

Proven Model of Success

Answering clinical questions that matter

Novel RNA whole-transcriptome sequencing and machine learning scientific platform

Clinical evidence published in top-tier journals

First-to-market, first-to-coverage

Clinically impactful tests

Address large, underserved thyroid cancer, lung cancer and idiopathic pulmonary fibrosis markets

Significant growth opportunity

Current and pipeline products address market opportunity of more than $30 billion

Experienced management team

with deep expertise and proven track record

Continued strong momentum

positions VCYT for near- and long-term success