ANSWERS

veracyte®

Jefferies 2019 Global Healthcare Conference

Bonnie Anderson
Chairman & Chief Executive Officer

June 6, 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 March 31, 2019. These forward-looking statements speak only as of the date hereof and Veracyte specifically disclaims any obligation to update these forward-looking statements.

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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

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Execution Driving Momentum

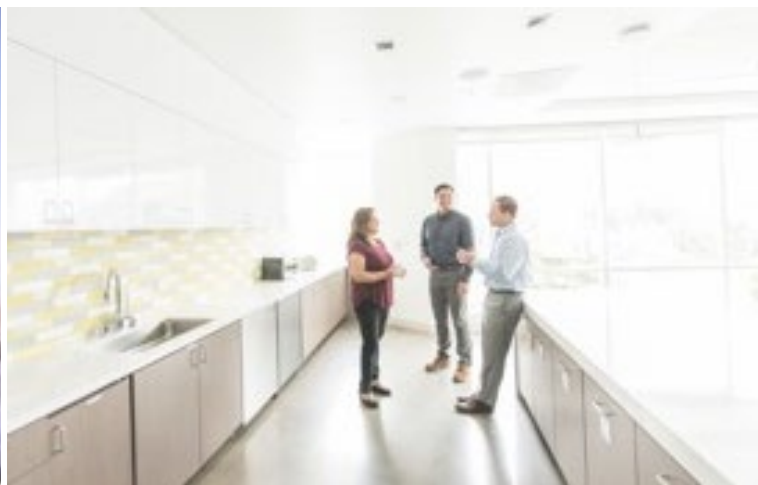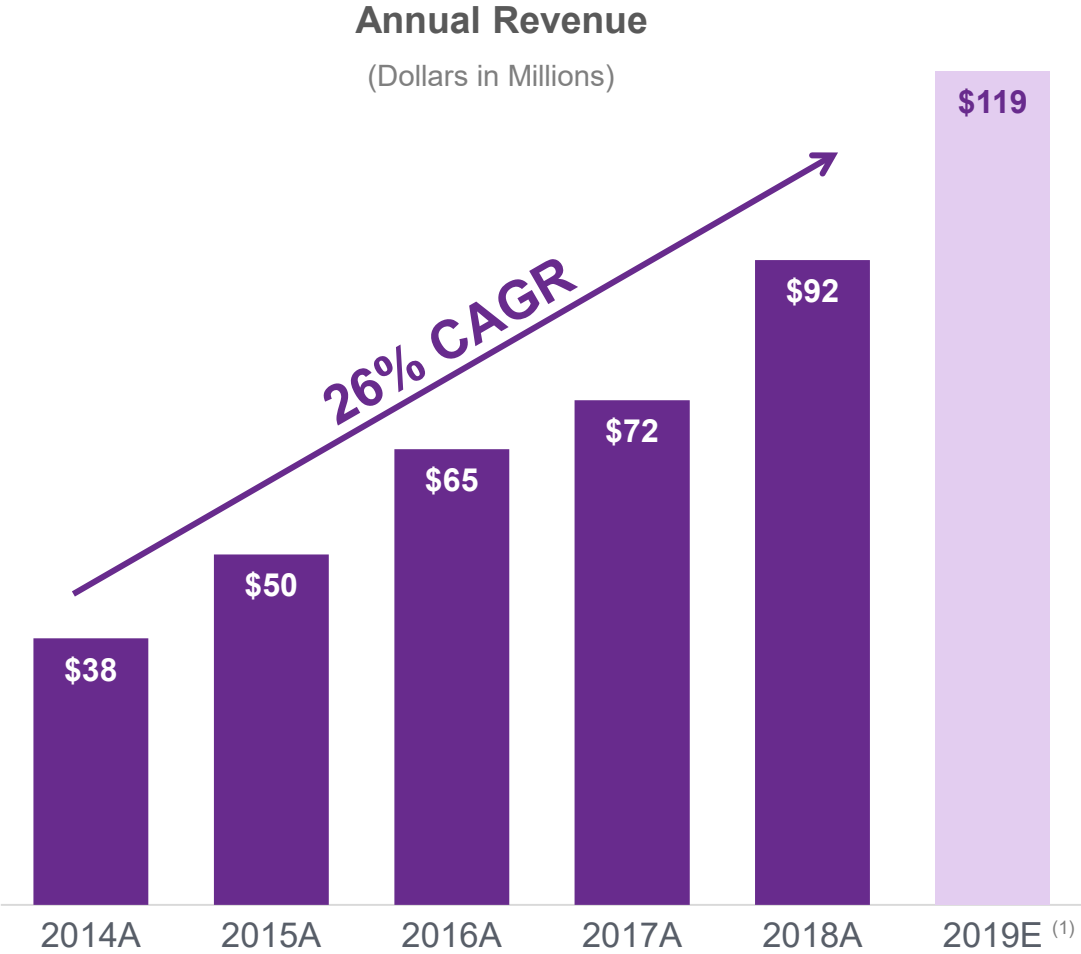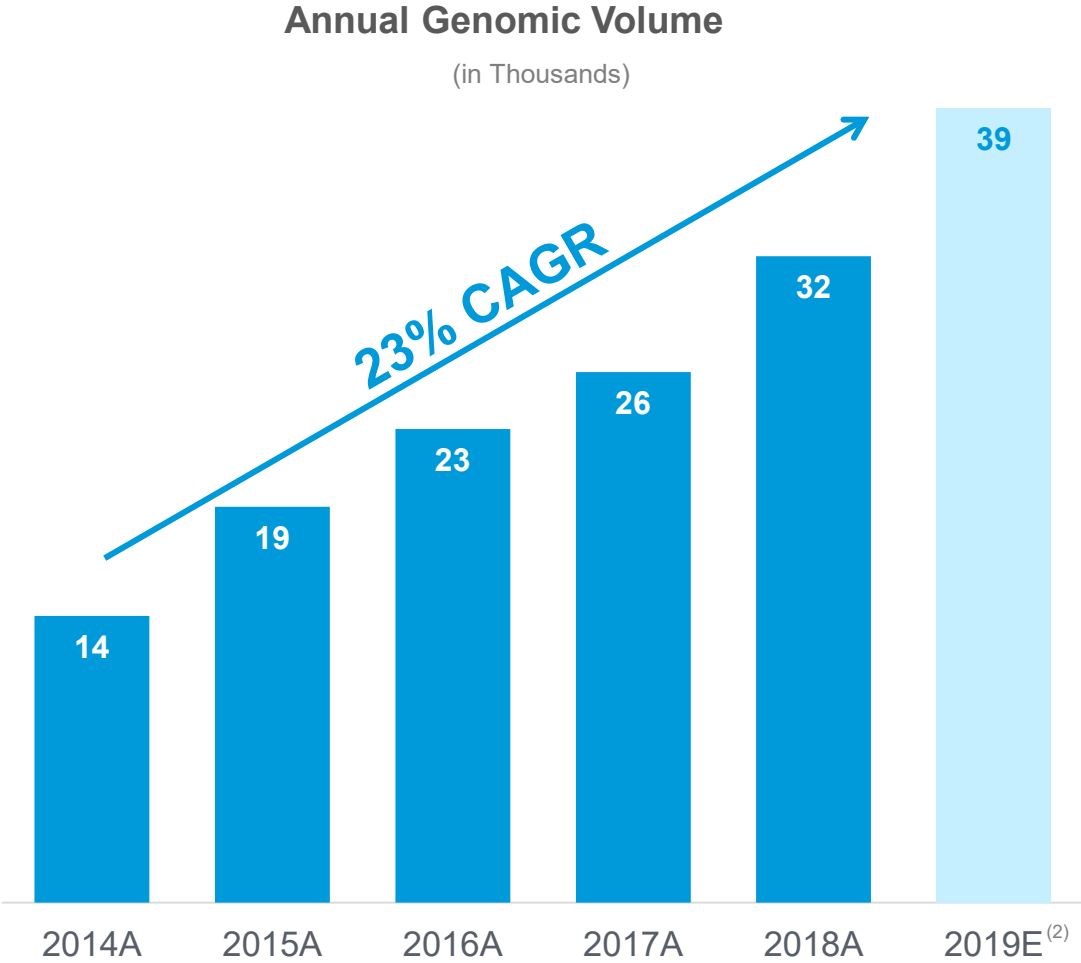| Strong Commercial Growth	Continued Reimbursement Success	Strategic Collaborations Advancing Pipeline and Driving Value Creation
Grew revenue and genomic test volume by 47% and 33%, respectively, in 1Q19 compared with 1Q18 • Afirma revenue grew by 23% in 1Q19 compared with 1Q18 • Percepta classifier volume increased 195% in 1Q19 compared with 1Q18 • Envisia had revenue for the first time in 1Q19 ***Multi-product sales strategy a key driver of growth***	Afirma, Percepta and Envisia classifiers all covered by Medicare Achieved in-network status with nearly all major U.S. health plans as a service provider	Strategic collaboration with Johnson & Johnson • Expect launch of Percepta® Genomic Sequencing Classifier (GSC) in mid-2019 • Accelerating development of first nasal swab test for early lung cancer detection • Global addressable market for lung cancer estimated at more than $30 billion

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Robust Annual Revenue and Genomic Volume Growth

Annual Revenue

(Dollars in Millions)

26% CAGR

2014A	2015A	2016A	2017A	2018A	2019E [1]
$38	$50	$65	$72	$92	$119

Annual Genomic Volume

(in Thousands)

23% CAGR

2014A	2015A	2016A	2017A	2018A	2019E [2]
14	19	23	26	32	39

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

(2) As of April 30, 2019, the $119 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

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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

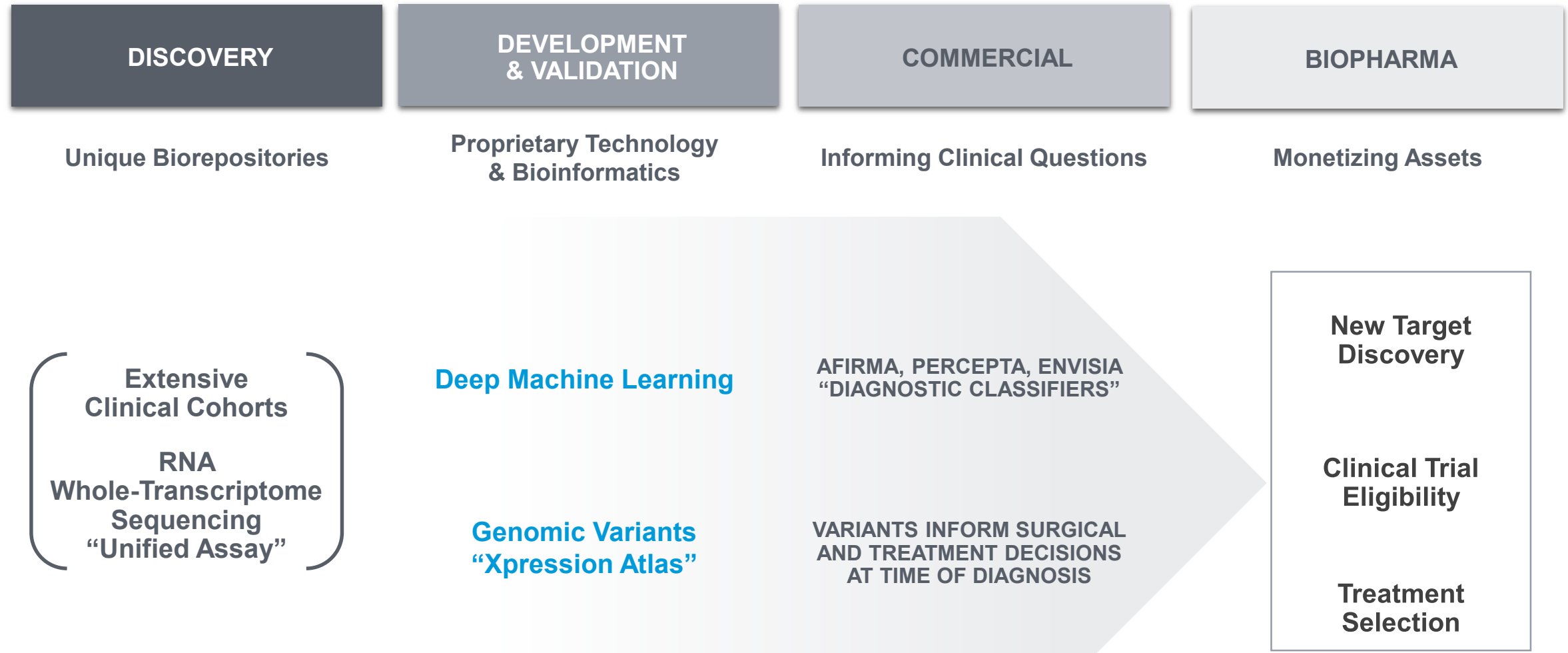BUILD ROBUST SCIENTIFIC AND CLINICAL EVIDENCE; INFORM GUIDELINES

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

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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

AFIRMA, PERCEPTA, ENVISIA "DIAGNOSTIC CLASSIFIERS"

Genomic Variants "Xpression Atlas"

VARIANTS INFORM SURGICAL AND TREATMENT DECISIONS AT TIME OF DIAGNOSIS

New Target Discovery

Clinical Trial Eligibility

Treatment Selection

June 2019

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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

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Leading in the Age of Evidence

Deep library of clinical evidence published in top-tier journals

Afirma	Percepta	Envisia
THYROID FNA ANALYSIS	BRONCHIAL GENOMIC CLASSIFIER	GENOMIC CLASSIFIER

Afirma — THYROID FNA ANALYSIS

3 clinical validation studies

1 analytical verification study

23 clinical utility studies, including **3** long-term clinical outcome studies

2 cost-effectiveness and quality-of-life studies

Percepta — BRONCHIAL GENOMIC CLASSIFIER

2 clinical validation studies

1 analytical verification study

2 clinical utility studies

1 cost-effectiveness study

PERCEPTA Registry with **~ 770 enrolled patients**

Envisia — GENOMIC CLASSIFIER

1 combined clinical validation and clinical utility study

2 clinical validation studies

1 analytical verification study

1 clinical utility patient study

BRAVE ongoing clinical trial **~ 440 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

Afirma
GENOMIC SEQUENCING CLASSIFIER

Percepta
GENOMIC SEQUENCING CLASSIFIER

Envisia
GENOMIC CLASSIFIER

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

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Our Founding Strategy: Improve Diagnostic Accuracy
Hundreds of thousands of patients evaluated for suspected disease

IMAGING AND/OR BIOPSIES

Diagnosis Uncertain*

15% to 70%

*In thyroid and lung indications

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Robust Market Opportunity Across Multiple Diseases

Thyroid Cancer

Lung Cancer

Idiopathic Pulmonary Fibrosis (IPF)

$840MM

$500MM
Percepta
BRONCHIAL GENOMIC CLASSIFIER
U.S. Market Opportunity

$30BN

$560MM

Global Market Opportunity

Afirma
GENOMIC SEQUENCING CLASSIFIER

Global Lung Cancer Market Opportunity [1]

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

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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

June 2019

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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

↓

Afirma.

GENOMIC SEQUENCING CLASSIFIER

Benign

Reduce
Unnecessary
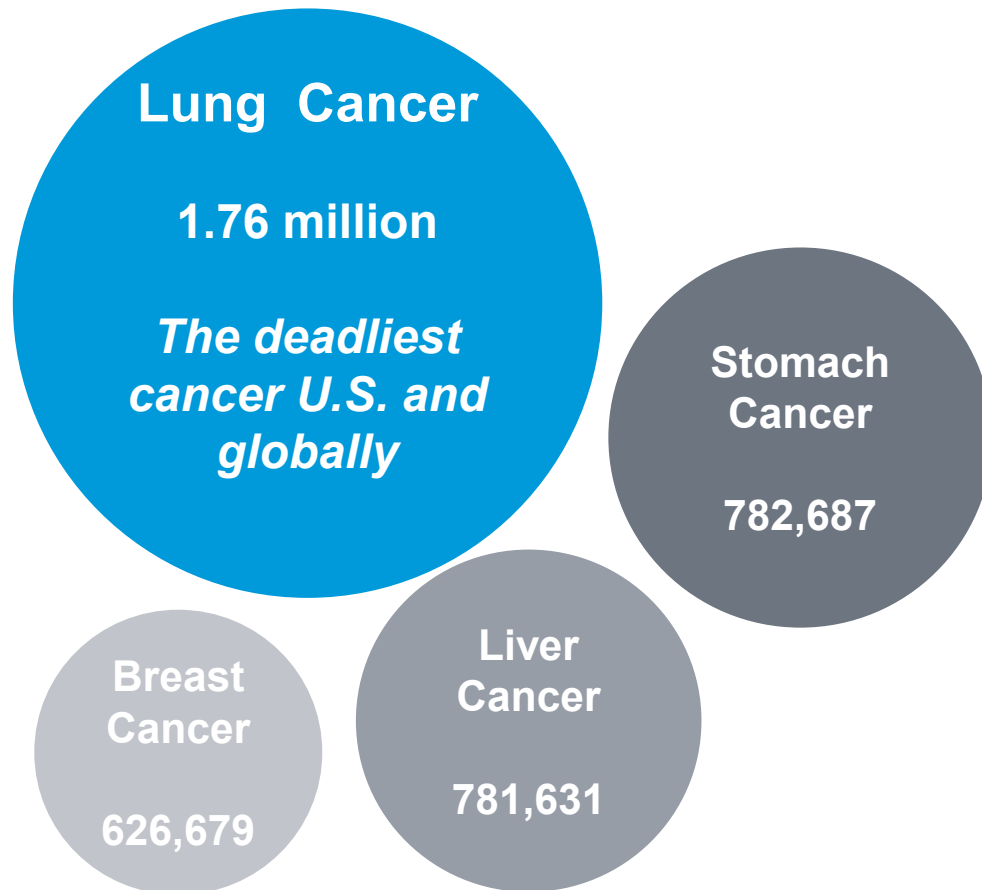surgeries by
~70%

Suspicious

Xpression Atlas
Inform treatment
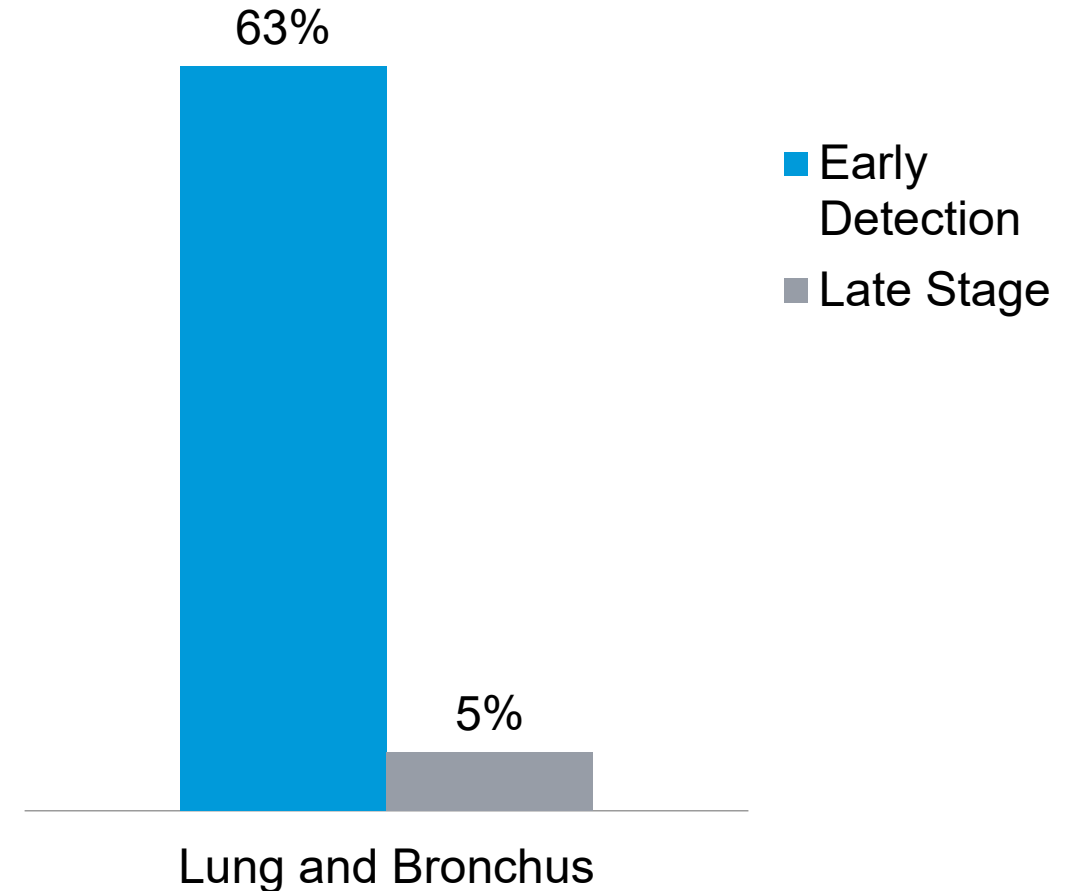decisions to improve
patient outcomes

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In Lung Cancer

Early Detection and Improved Diagnosis are Key to Saving Lives

Estimated Cancer Deaths Worldwide, 2018

Five-Year Survival Rate [1]

Lung Cancer

1.76 million

The deadliest cancer U.S. and globally

Stomach Cancer

782,687

Breast Cancer

626,679

Liver Cancer

781,631

63%

5%

- Early Detection
- Late Stage

Lung and Bronchus

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A Complement to Diagnostic Bronchoscopy to Reduce Invasive Procedures in Lung Cancer

1.8M to 2M incidental lung nodules detected by CT scan in U.S. annually; most followed by CT

360,000 Bronchoscopy
~80% intermediate risk

Diagnosis Uncertain Up to 60%

~150,000

Percepta®

GENOMIC SEQUENCING CLASSIFIER
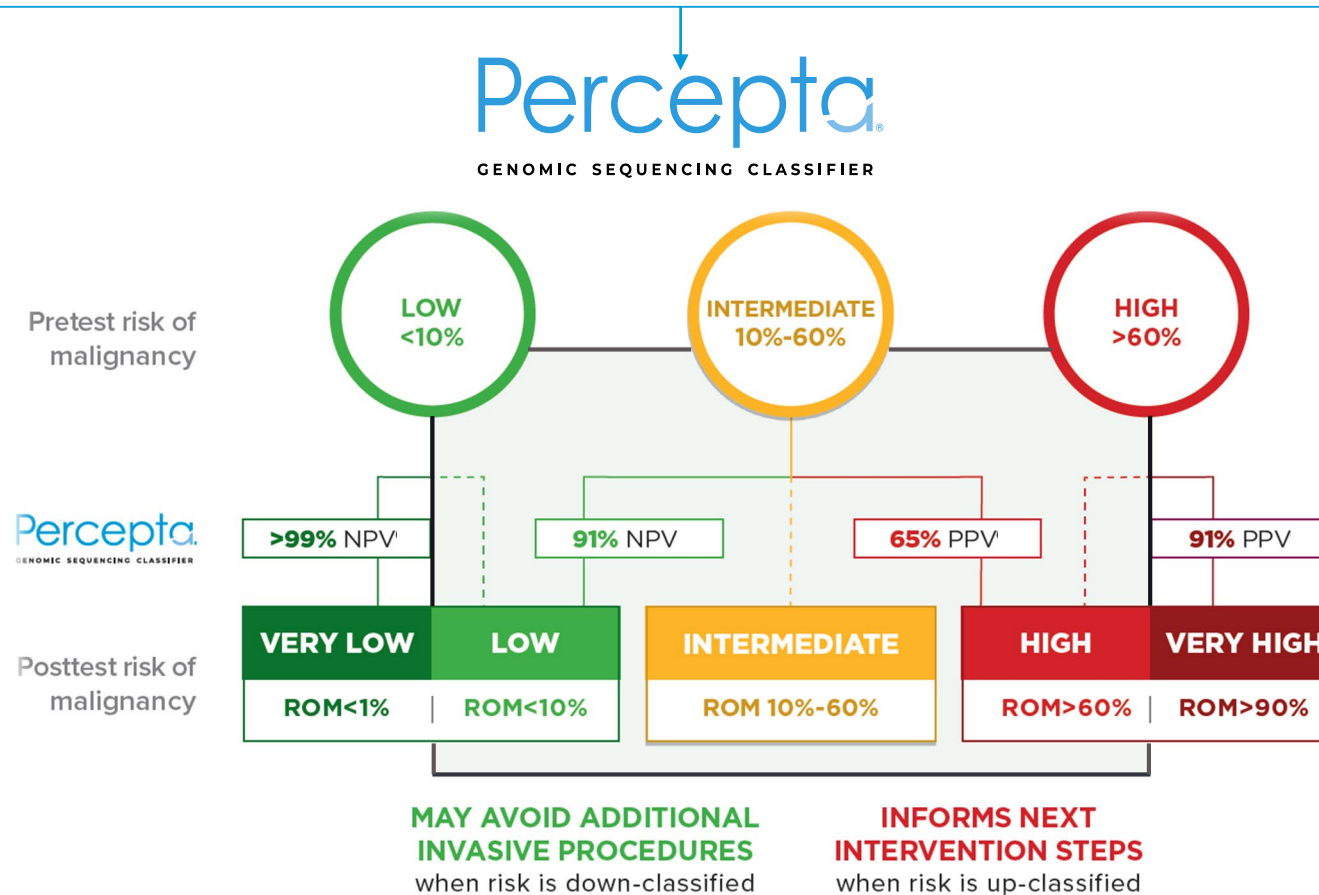
Low-Dose CT Scan
Follow with LDCT in lieu of invasive procedure

Improved Treatment Decisions

veracyte®

"Next-Generation" Percepta® Genomic Sequencing Classifier

~150,000 PULMONARY NODULE BRONCHOSCOPIES ARE INCONCLUSIVE

Percepta
GENOMIC SEQUENCING CLASSIFIER

Pretest risk of malignancy

| LOW <10% | INTERMEDIATE 10%-60% | HIGH >60% |

Percepta
GENOMIC SEQUENCING CLASSIFIER

| >99% NPV | 91% NPV | 65% PPV | 91% PPV |

Posttest risk of malignancy

| VERY LOW | LOW | INTERMEDIATE | HIGH | VERY HIGH |
| ROM<1% | ROM<10% | ROM 10%-60% | ROM>60% | ROM>90% |

MAY AVOID ADDITIONAL INVASIVE PROCEDURES
when risk is down-classified

INFORMS NEXT INTERVENTION STEPS
when risk is up-classified

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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

↓

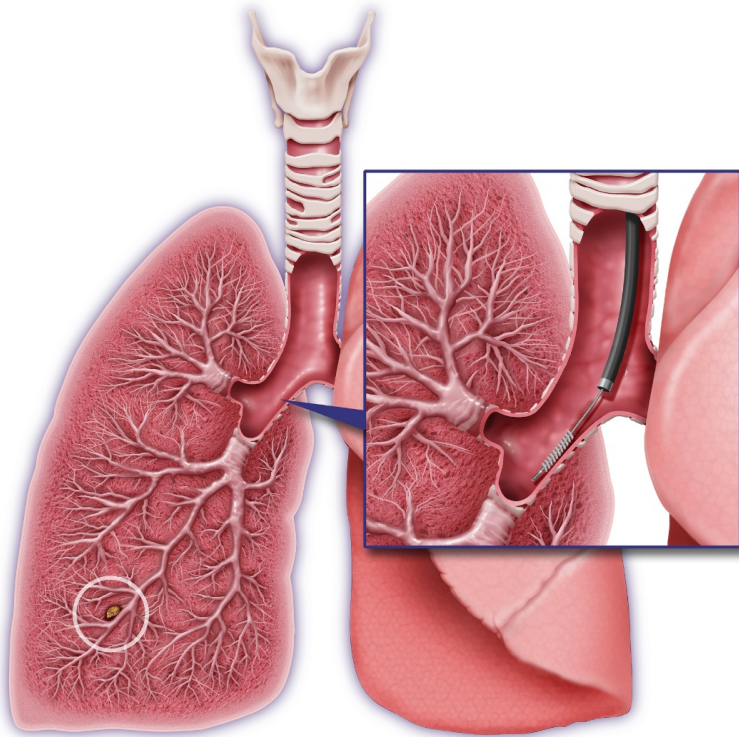**Lack highly confident Dx**
~150,000 up to 75%*

↓

Envisia™
GENOMIC CLASSIFIER

↓

Classic UIP pattern
improves confidence in IPF diagnosis without surgery

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Pipeline Highlight: Nasal swab test for early lung cancer detection

Using novel, proprietary field of injury science that powers **Percepta**
BRONCHIAL GENOMIC 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 (expected in mid-2019)

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

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

FURTHER STRENGTHENS OUR LEADING POSITION IN LUNG CANCER DIAGNOSIS

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Experienced Team with Track Record of Success

Bonnie Anderson
Chairman and
Chief Executive Officer

Keith Kennedy
Chief Financial Officer

Chris Hall
President and
Chief Operating Officer

Giulia Kennedy, Ph.D.
Chief Scientific and Medical Officer

John Hanna
Chief Commercial Officer

Freddie Bowie, Ph.D.
Vice President, Corporate and
Business Development

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Catalysts to Drive Continued Momentum in 2019

Afirma
THYROID FNA ANALYSIS

Percepta
BRONCHIAL GENOMIC CLASSIFIER

Envisia
GENOMIC CLASSIFIER

	Afirma	Percepta	Envisia
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

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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

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