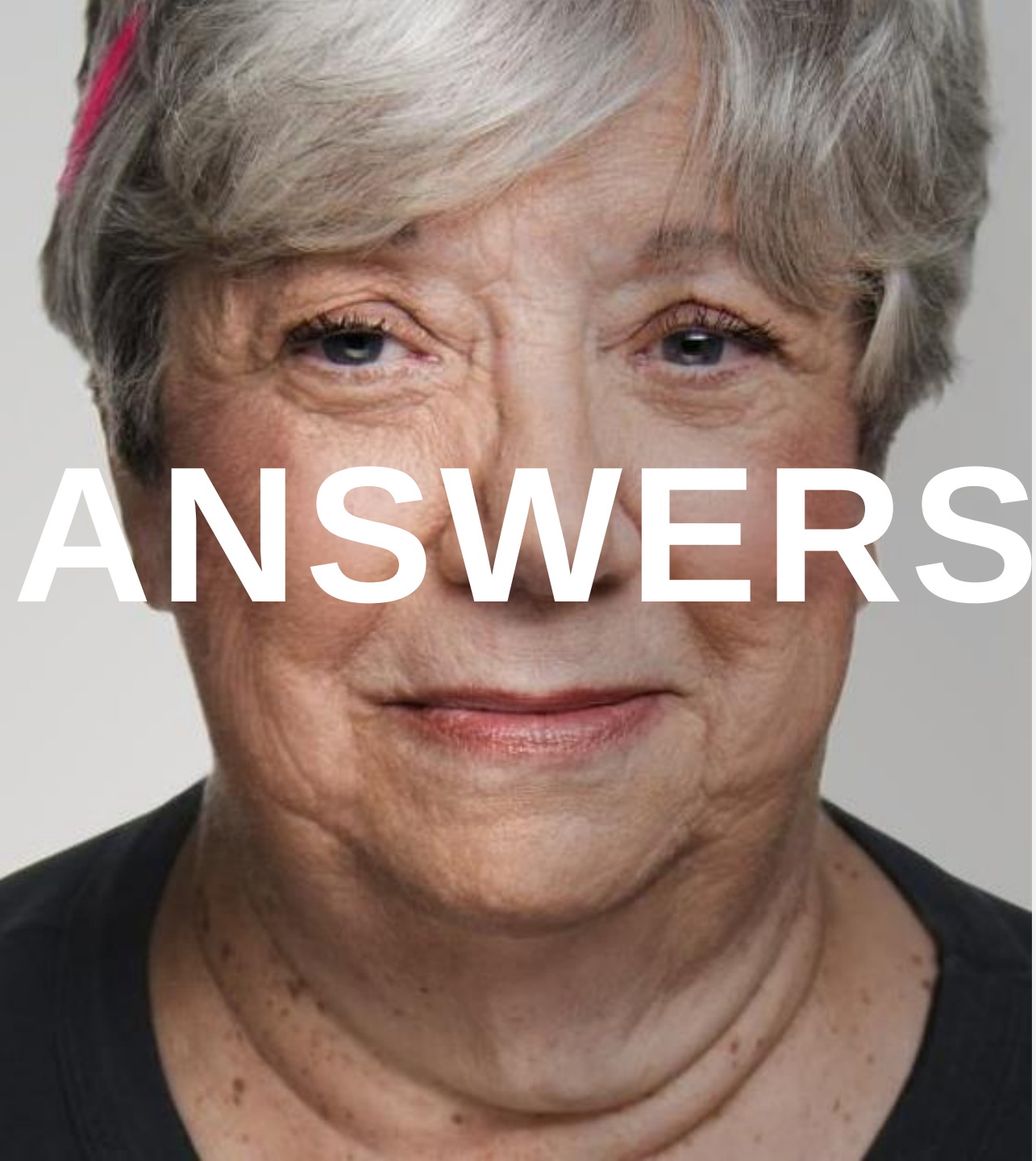

veracyte®

Veracyte R&D Day

Lung Cancer Portfolio Review and Data Update

December 16, 2020

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 regarding Veracyte's ability to develop and commercialize our nasal swab, Percepta Genomic Atlas and other tests to aid in disease diagnosis, characterization and prognosis to support disease management for patients with lung nodules and lung cancer. Forward-looking statements are neither historical facts nor assurances of future performance, but are based only on our current beliefs, expectations and assumptions. These statements involve risks and uncertainties, which could cause actual results to differ materially from our predictions, and include, but are not limited to: the impact of COVID-19 on our business and operating results, specifically, and the healthcare system and economy more generally; 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 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; and other risks set forth in our filings with the Securities and Exchange Commission. Factors that may impact these forward-looking statements can be found in Item 1A – "Risk Factors" in our Annual Report on Form 10-K filed with the SEC on February 25, 2020 and in our Quarterly Report on Form 10-Q filed with the SEC on November 2, 2020. A copy of these documents can be found at the Investors section of our website at www.veracyte.com. These forward-looking statements speak only as of the date hereof and Veracyte specifically disclaims any obligation to update these forward-looking statements or reasons why actual results might differ, whether as a result of new information, future events or otherwise.

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Today's Agenda

Welcome Remarks	**Tracy Morris** *VP Corp. Comms and IR* **Keith Kennedy** *CFO*
Veracyte's Vision for Transforming Lung Cancer Care	**Bonnie Anderson** *Chairman & CEO*
Lung Cancer Diagnosis: Unmet Needs in the Patient Journey	**Sonali Sethi, MD**
Lung Cancer Portfolio Development Update	**Giulia C. Kennedy, PhD** *CSO & CMO*
A Lung Nodule Has Been Found: Now What?	**Carla R. Lamb, MD**
Barriers to Informing Treatment Decisions	**Michael A. Bernstein, MD**
KOL Roundtable Discussion: Vision for Solutions	**Moderated by Bonnie Anderson**
Q&A Session	**All Speakers**
Closing Remarks	**Bonnie Anderson**

Veracyte's Vision for Transforming Lung Cancer Care

Bonnie Anderson

Chairman and Chief Executive Officer

Veracyte

We are a global genomic diagnostics company transforming care throughout the patient journey.

Our foundational strategy drives our business

Relevant Questions

Integrated into current care pathway to change practice and reduce surgeries

Scientific Rigor

Build robust scientific and clinical evidence; inform guidelines

Value Creation

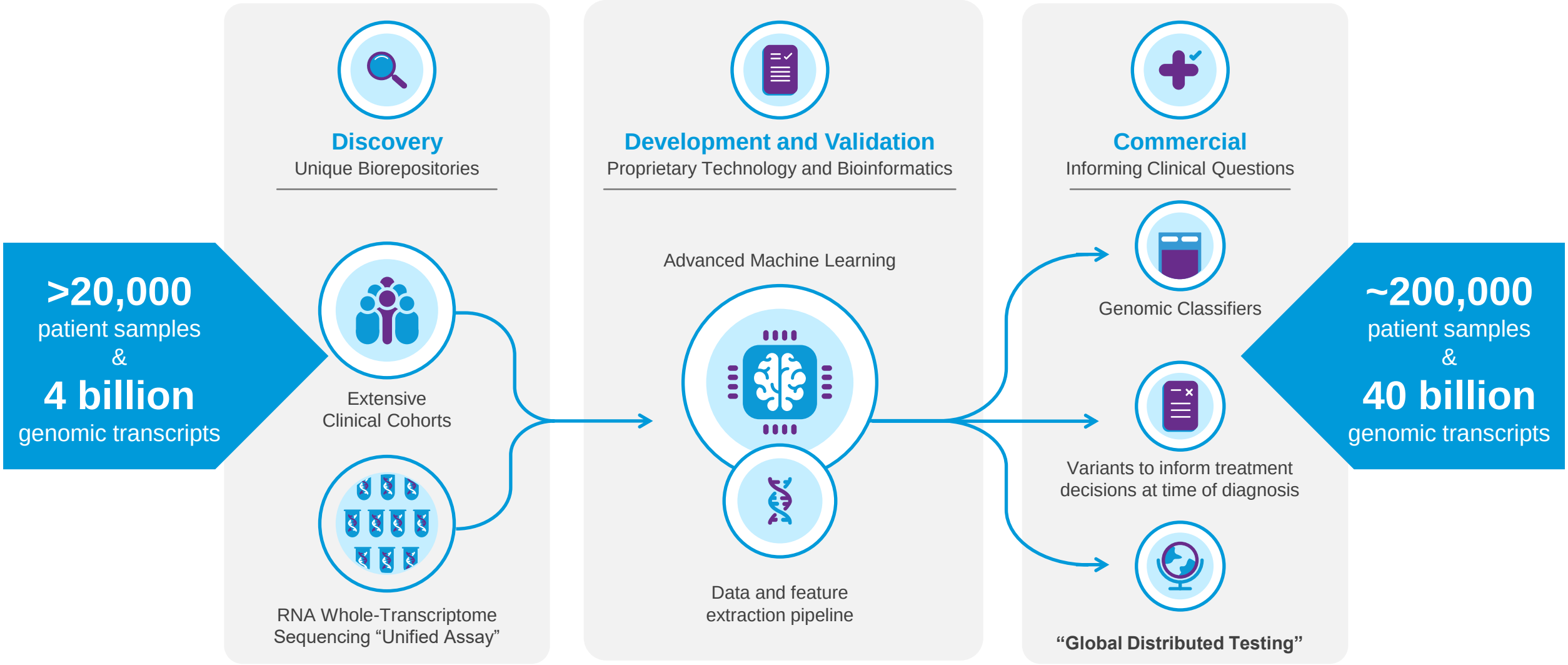
Clinical utility and economic value that change the standard of care

Successful Reimbursement

Extensive coverage policies and contracted relationships pave way for additional tests

Our powerful science and technology

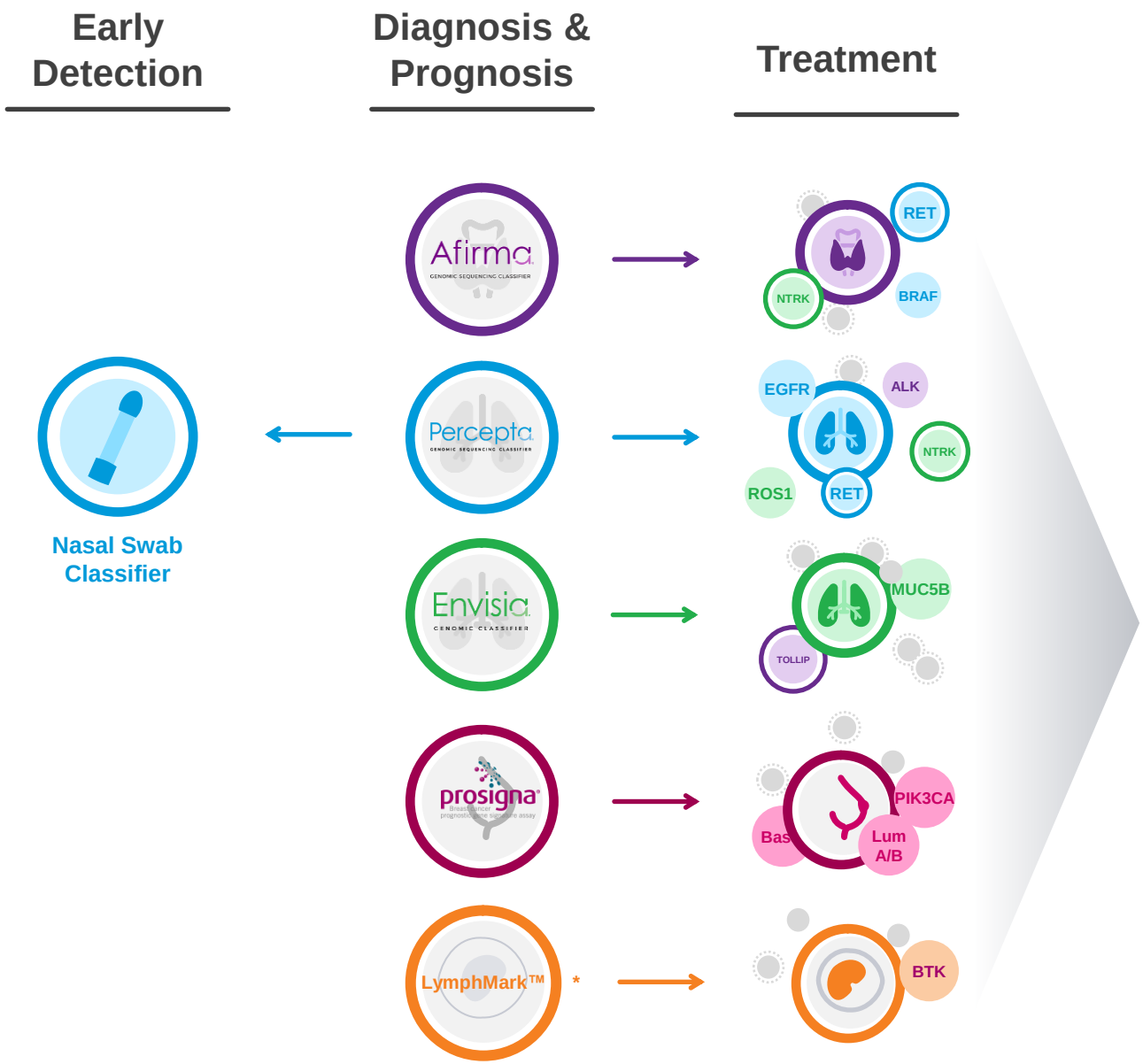
Enables innovation from large-scale clinical biorepositories



VERACYTE TODAY

Five clinical indications

Addressing unmet needs throughout the care continuum



>$40 billion TAM

Our strategic growth pathway

2013 - 2018

1 **Scientific Excellence**

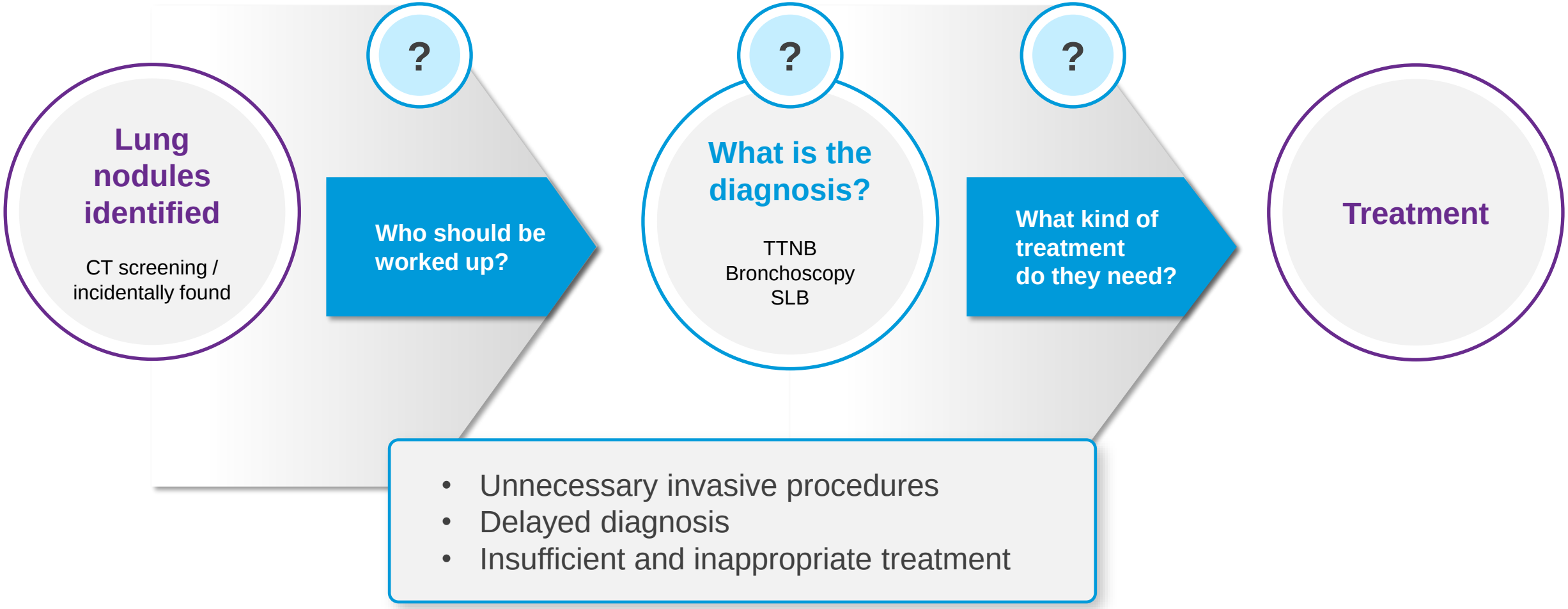
2019 - 2020

2 **Channel Expansion**

Path Forward

3 **Menu Expansion**

Unmet clinical needs throughout the care continuum



Veracyte's Lung Cancer Franchise

Genomic insights to drive care at each step of the patient's journey

FUTURE Pre-cancer Detection

Nasal Swab Classifier

~$36B

Johnson & Johnson

Early Detection

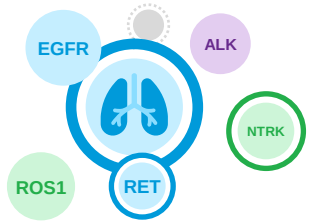
Nasal Swab Classifier

~$4B

Diagnosis

~$700M

Treatment



Percepta Genomic Atlas

~$1.4B

FUTURE Support Early-Stage Therapeutics

Biopharma Collaborations

A New Era in Lung Cancer Early Detection, Diagnosis and Treatment

- Minimally invasive
- Comprehensive genomic profiling data
- Faster, more timely answers and care decisions
- First large biorepository of early-stage lung cancers

NOBLE trial for future lung cancer early-detection tests

9000-patient, prospective, multicenter (~50 sites) study of people with lung nodules detected on CT scans

Includes smokers and nonsmokers, and those without cancer

Collect **nasal swab/other samples, CT imaging and other data**

Distinguish **lung cancer development and progression** for three years or until a lung cancer diagnosis

Create **robust biorepository** of genomic, imaging, clinical and other data

Develop potential tests that may **help detect cancer at its earliest stages**

Potential to identify and intercept lung cancer *before* it develops

Today's Goals:

Share our vision, discuss the unmet patient-care needs and share latest data on our pipeline tests

Bonnie Anderson
Chairman and
Chief Executive Officer

Giulia C. Kennedy, PhD
Chief Scientific Officer and
Chief Medical Officer

Sonali Sethi, MD, FCCP, DAABIP
Associate Program Director for Procedural Training, Interventional Pulmonology at the Cleveland Clinic

Carla R. Lamb, MD, FACP, FCCP
Director of Interventional Pulmonology
Lahey Hospital & Medical Center
Beth Israel Lahey Health

Michael A. Bernstein, MD, FCCP
Associate Director for Pulmonary and Critical Care at Stamford Health

Lung Cancer Diagnosis: Unmet Needs in the Patient Journey

Sonali Sethi MD, FCCP, DAABIP

Interventional Pulmonology

Associate Program Director for Procedural Training

Cleveland Clinic

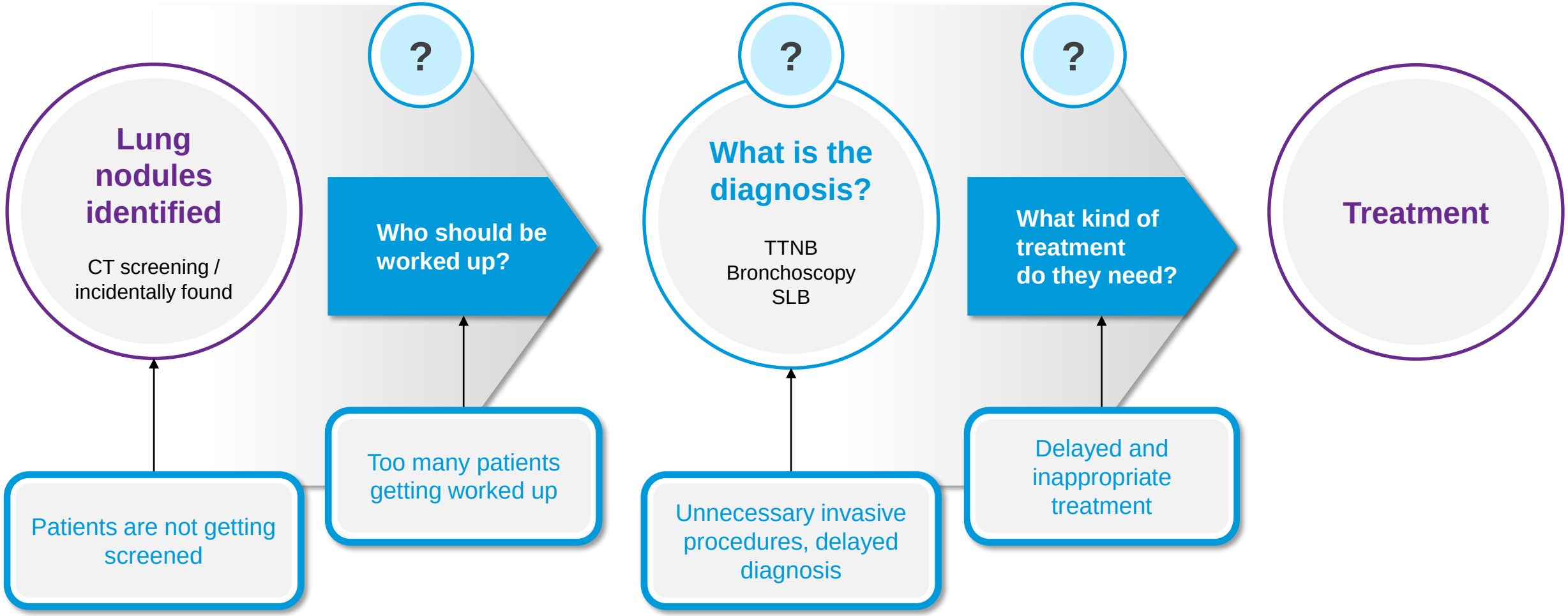
Sonali Sethi MD, FCCP, DAABIP

Background and practice overview

Cleveland Clinic
Cleveland, OH

- 14 years in practice
- Cleveland Clinic – Interventional Pulmonologist and Associate Program Director for Procedural Training
- Lung nodule and Lung cancer clinic
- 16,000 Lung nodules a year
- 4000 Bronchoscopies per year
- 1200 EBUS cases
- 500 Navigational cases

Lung cancer: Many barriers on the road to diagnosis and treatment



Bottom line: Lung cancer remains a major medical problem

Lung cancer by the numbers

~135K
deaths in U.S. alone[1]

22%
of all cancer deaths[1]

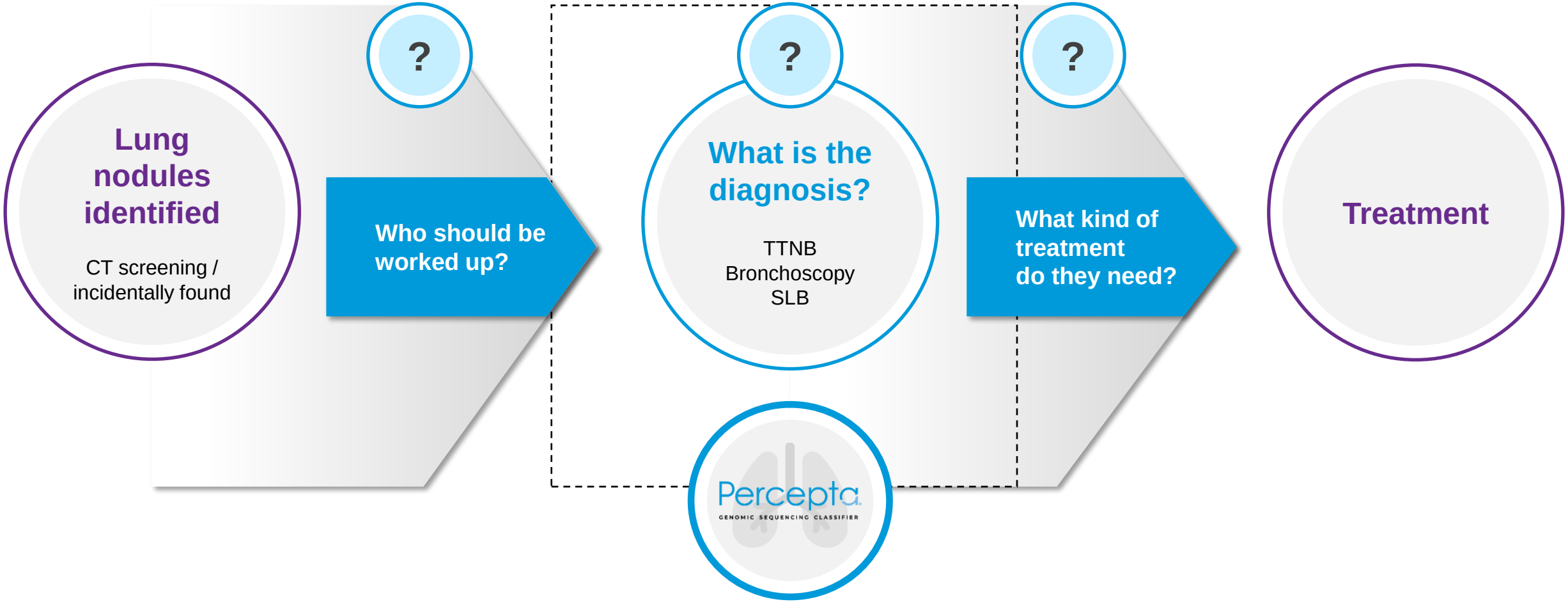
59%
5-year survival rate when detected early[2]

23%
lung cancers detected at early-stage[2]

We need to find more cancers early and ensure patients obtain the treatment they need

1 American Cancer Society, Cancer Facts & Figures 2020
2 American Lung Association, State of Lung Cancer Report 2020

Lung cancer diagnosis: Avoiding risky, costly procedures with Percepta GSC

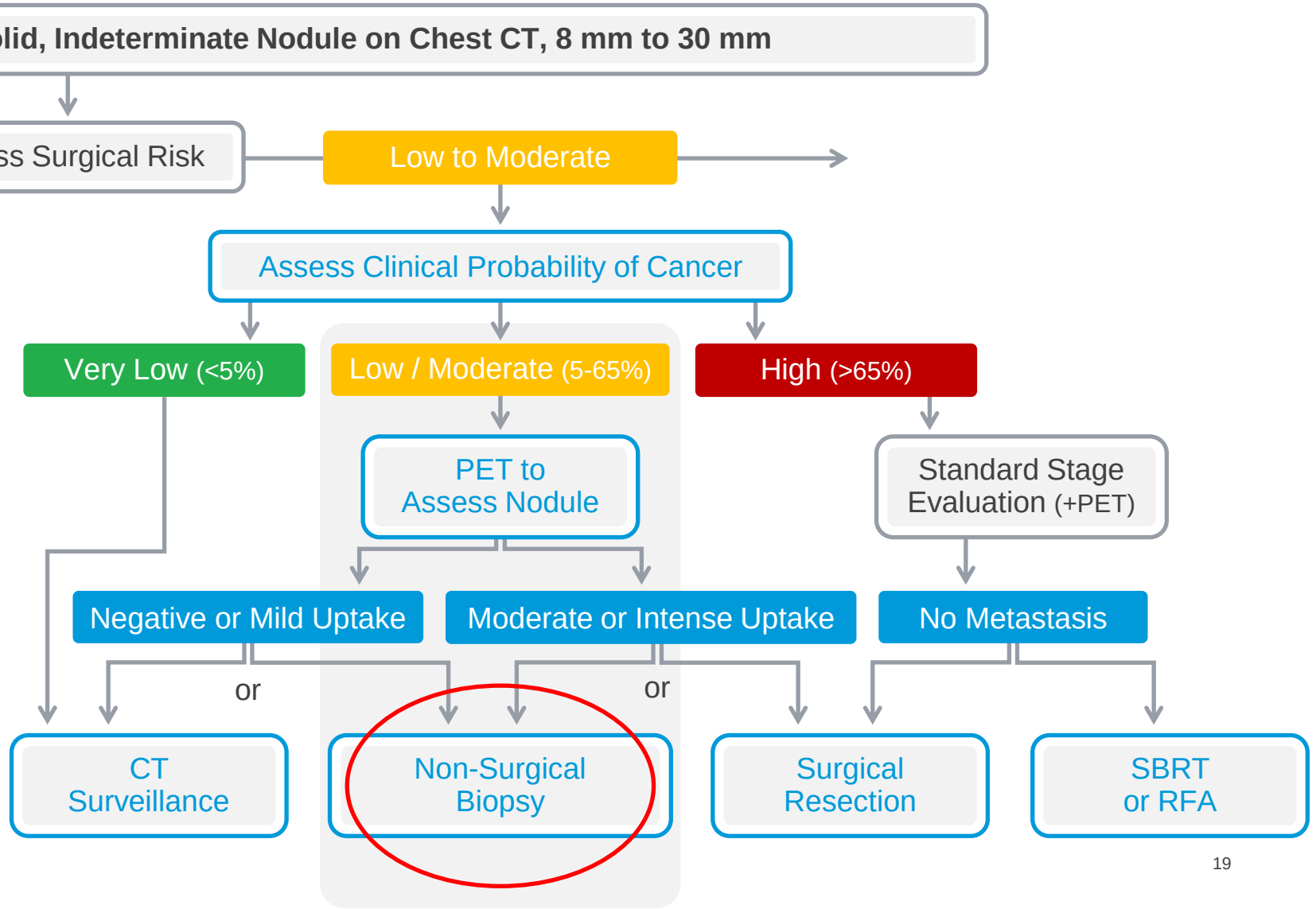


Guidelines recommend a non-surgical biopsy for low/moderate risk of malignancy cases

AS MANY AS

80%

of pulmonary nodules referred to pulmonologists are in the intermediate risk group



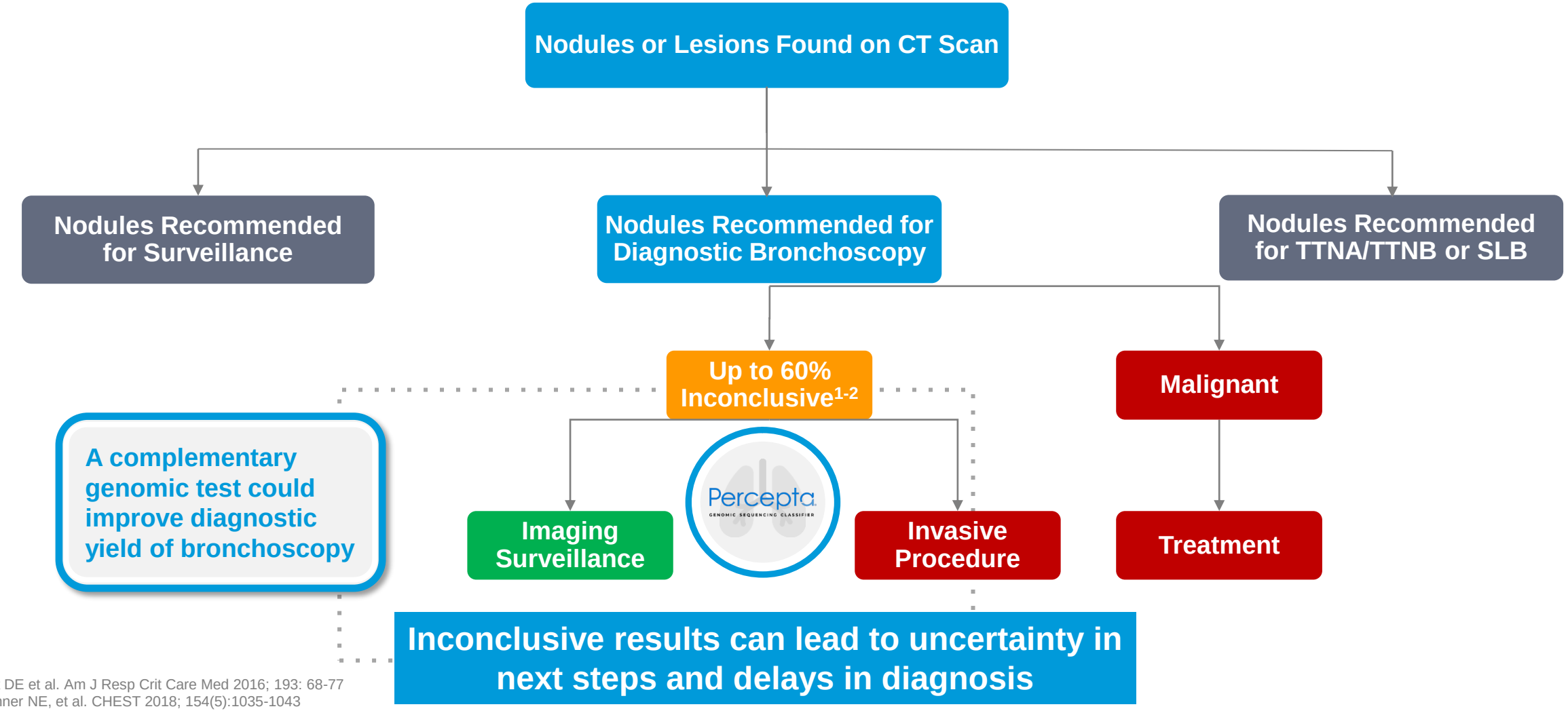
Gould, MK et al. Chest 2013,143(5 Suppl):e93S-e120S

Diagnostic modalities

		Diagnosis		Diagnosis + Staging	
MODALITY	TTNA	**STANDARD BRONCHOSCOPY**	ENB WITH RP-EBUS	EBUS	SURGERY
PROS	• High yield >92%	• **Safer; <3% complication rate**	• Able to reach small peripheral nodules	• Diagnosis + Staging	• Gold Standard Therapy
CONS	• 15-30% pneumotx rate	• **Low yield for small peripheral nodules**	• Variable diagnosis yield	• Only targets adjacent to large airways	• Invasive and 5% mortality

FOR SOLITARY PULMONARY NODULES, USE THESE

Bronchoscopy is the least invasive option for diagnosing suspicious lesions, but is often inconclusive

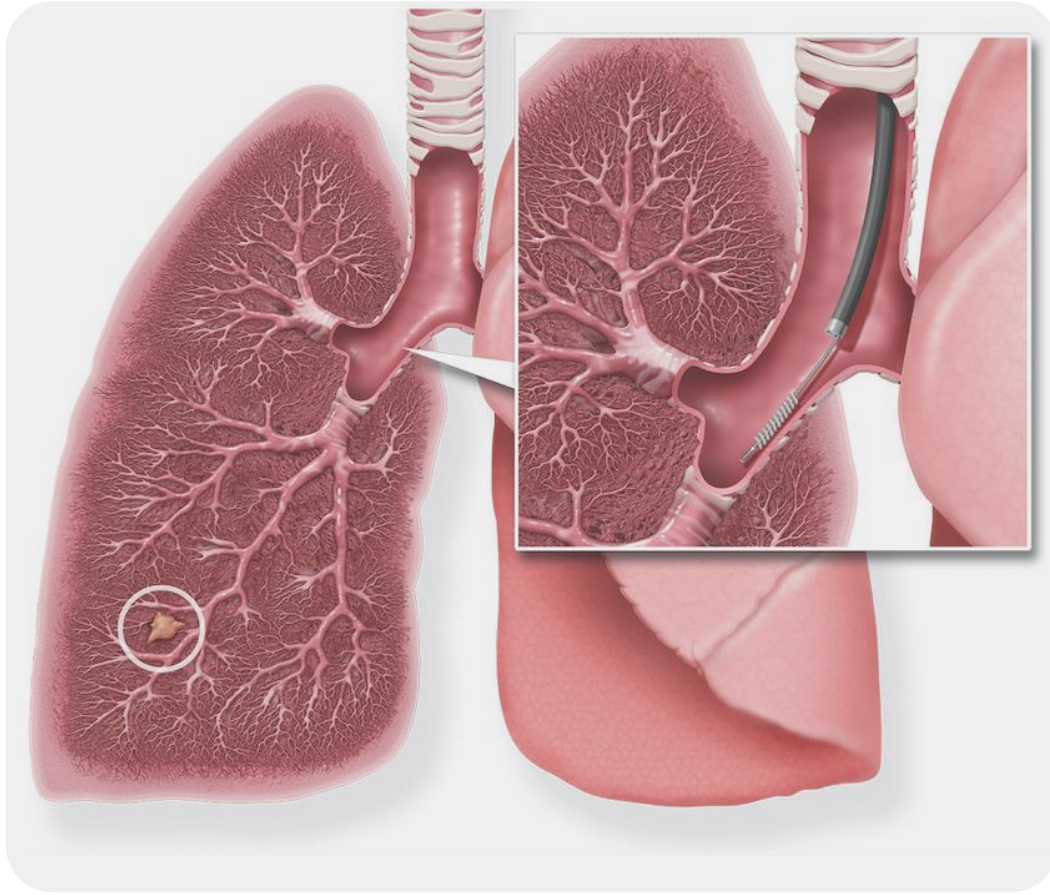


Ost DE et al. Am J Resp Crit Care Med 2016; 193: 68-77
Tanner NE, et al. CHEST 2018; 154(5):1035-1043

Percepta Genomic Sequencing Classifier

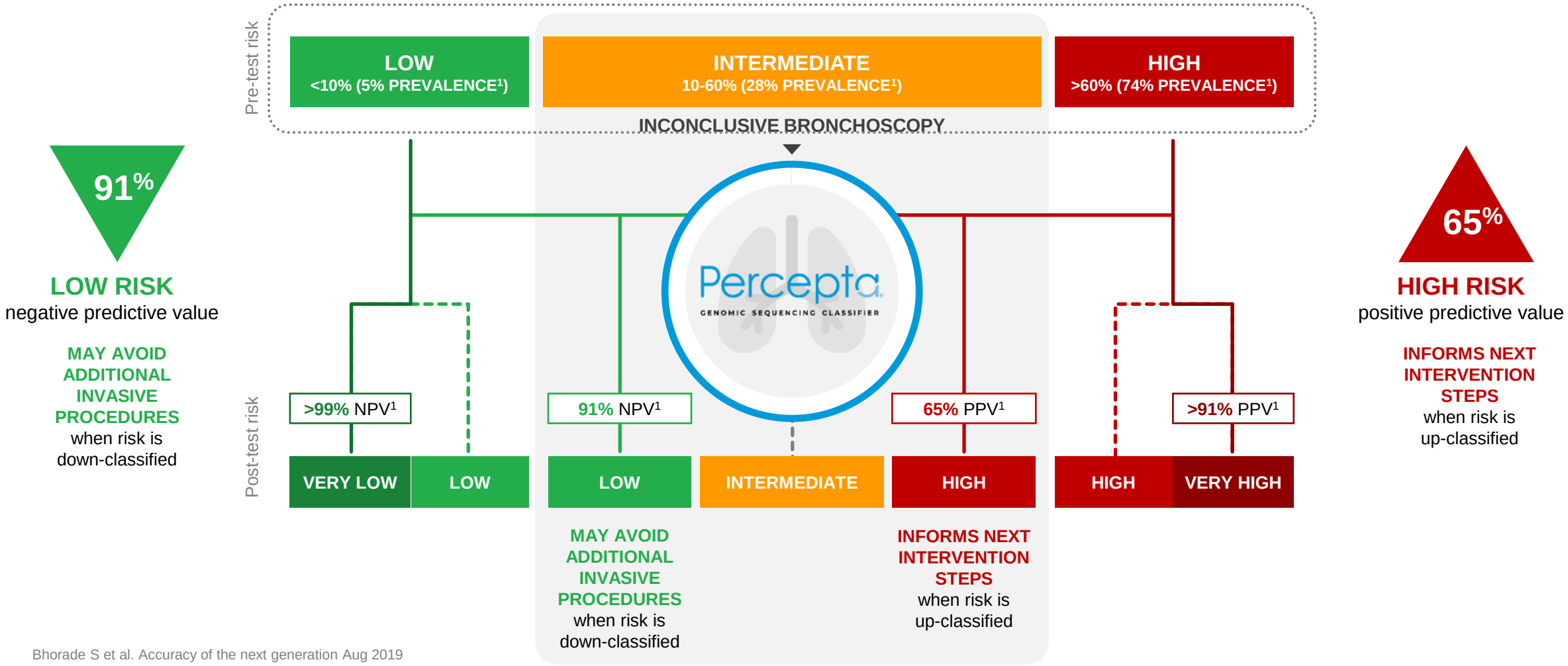
- Gene expression test that identifies genomic alterations in the epithelial lining of the respiratory airway (“field of injury”), which are associated with lung cancer in current and former smokers.
- Test relies on cells collected from the main airway during bronchoscopy
- Detects these genomic changes to determine the likelihood that a lung nodule is malignant

Test is used to help **RULE OUT** or **RULE IN** lung cancer



Spira A, et al. PNAS July 6, 2004 101 (27) 10143-10148
Billatos E, et al. Clin Cancer Res; 24(13) July 1, 2018
Silvestri GA, et al. N Engl J Med; 373:243-251, 2015

Percepta GSC stratifies the risk of primary lung cancer when bronchoscopy is inconclusive



Bhorade S et al. Accuracy of the next generation Aug 2019
Silvestri GA, et al. N Engl J Med 2015; 373:243-251
Lee, H, et al. Bronchial Genomic Classifier Prospective Registry-Interim Analysis CHEST 2018

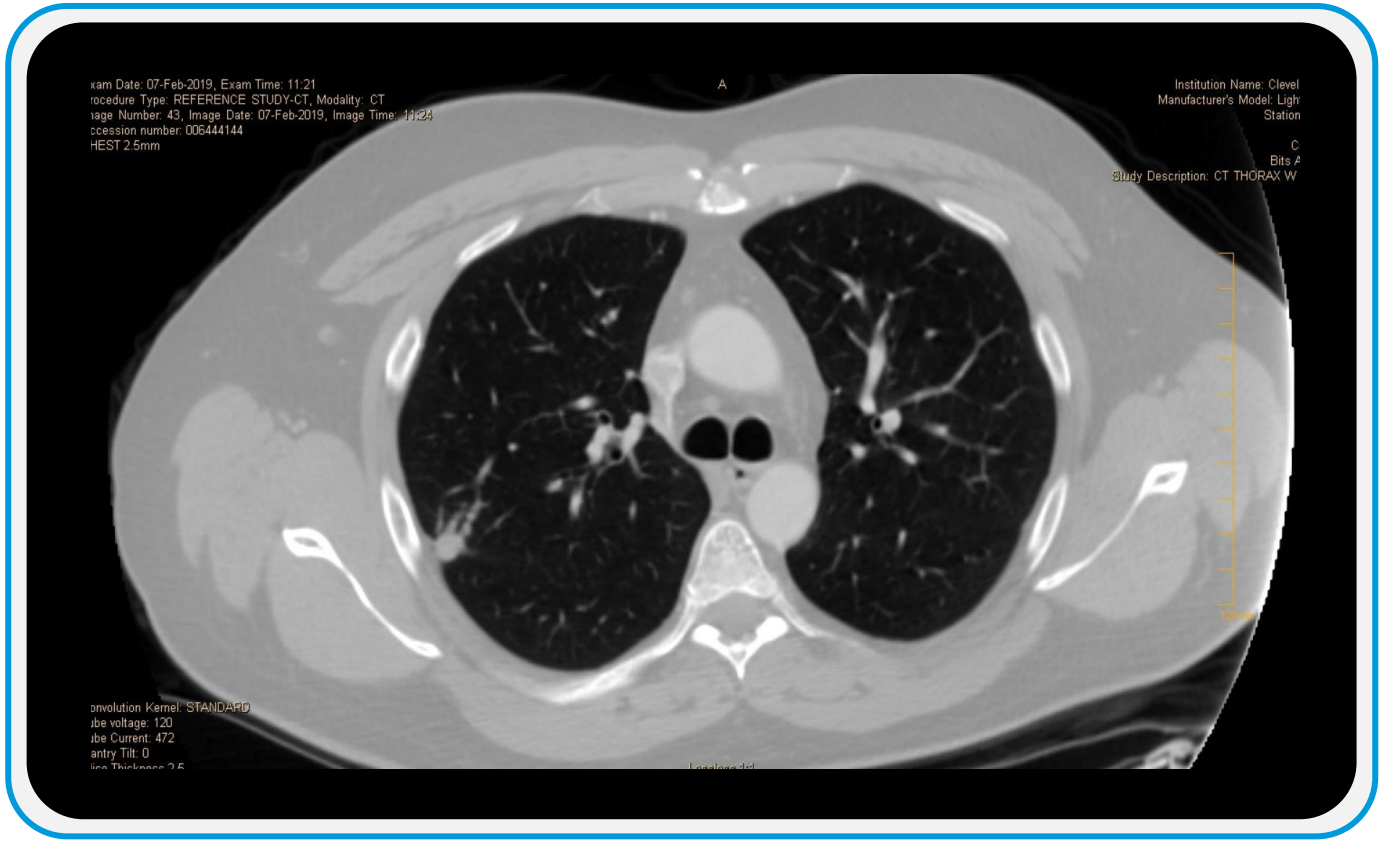
Case study

PATIENT BACKGROUND:
Age: 44
Gender: Male
Current Smoker

CT SCAN:
12 mm spiculated nodule RUL

PET:
RUL lung nodule SUV 2.0

PHYSICIAN ASSESSED PRE-TEST RISK:
Intermediate
Mayo calculator: 27.7% Risk



Case study

CBCT NAVIGATIONAL BRONCHOSCOPY W/ EBUS:

RUL lung nodule – Acute on chronic inflammatory cells, neutrophils, lymphocytes and macrophages

Case study

PATIENT BACKGROUND:
Age: 42
Gender: Male
Current Smoker: 20 pack-years
Other factors: History of Stage II COPD

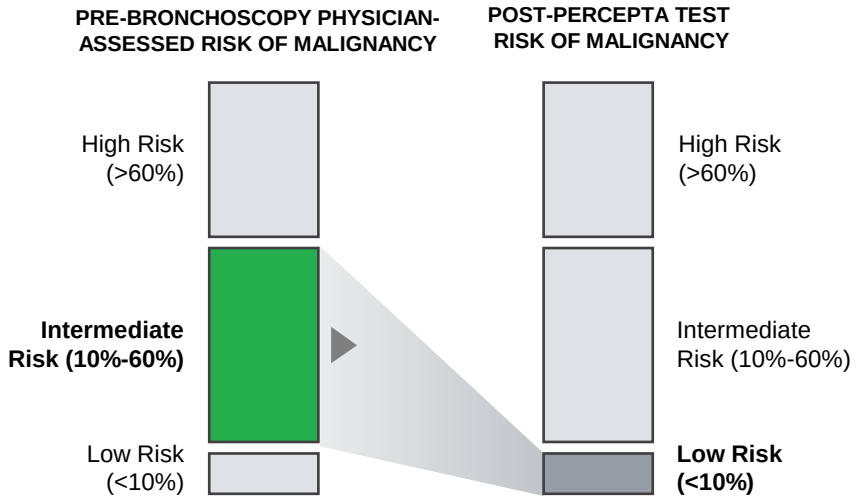
CT SCAN:
12 mm, spiculated lung nodule RUL

PRE-TEST RISK LEVEL:
Intermediate

NAVIGATIONAL BRONCHOSCOPY:
Inflammation

TEST RESULT

LOW RISK



RESULT INTERPRETATION

The result is based on a Negative Predictive Value (NPV) of 91%, which translates to a risk of malignancy of <10%.

91% **Negative Predictive Value (NPV)[1]**

The Percepta Genomic Sequencing Classifier was Validated in a pivotal prospective clinical study with 412 patients. The intermediate pre-test risk cohort had a risk of malignancy of 28% (n=188).[1]

The result does not confer a clinical diagnosis, and it must be interpreted in the context of other clinical factors and guideline recommendations

1. Data on file

Case study

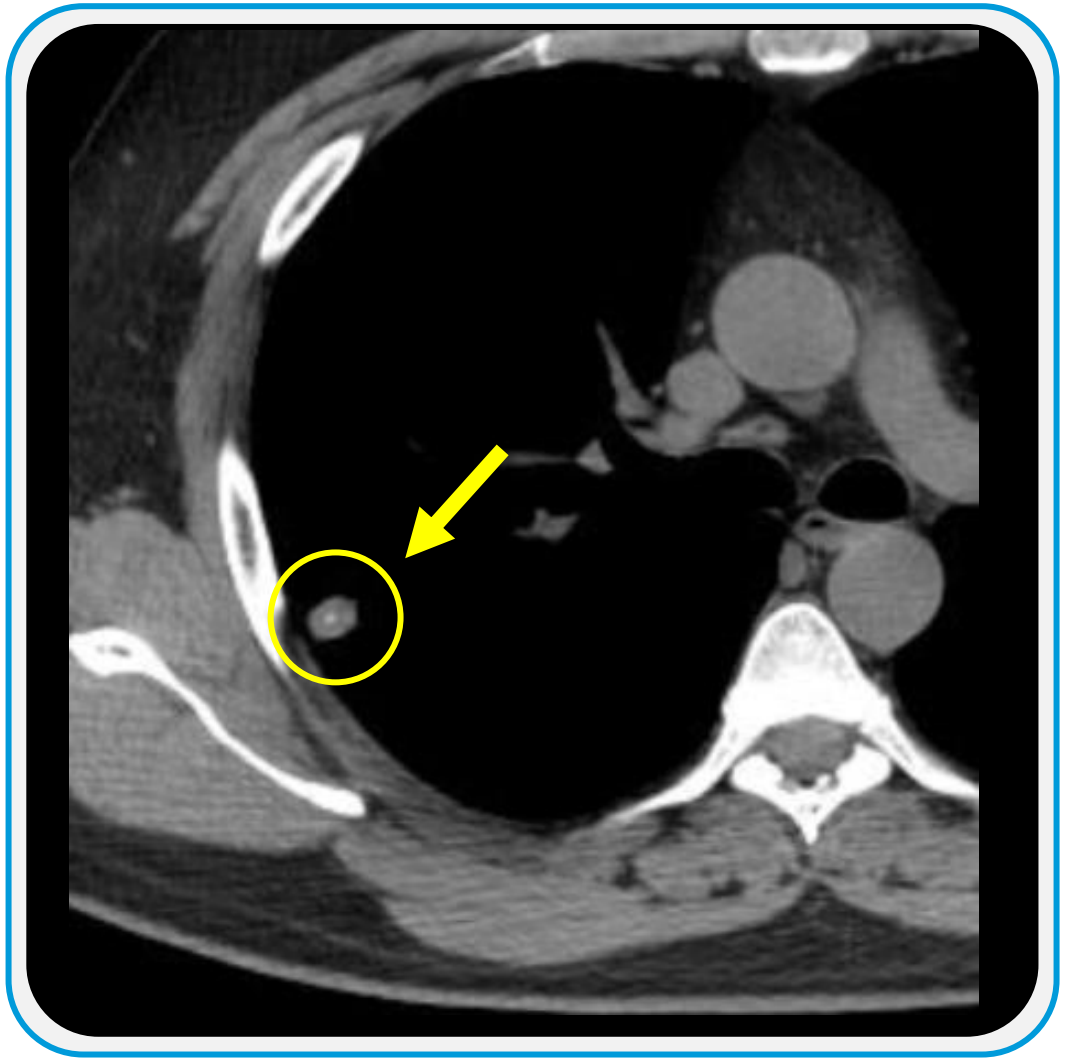
NEXT STEPS:

DECISION:

Pursue CT surveillance

- Stable for 1 year and now has a calcified center consistent with a benign granuloma

The Percepta test saved the patient from an avoidable TTNA



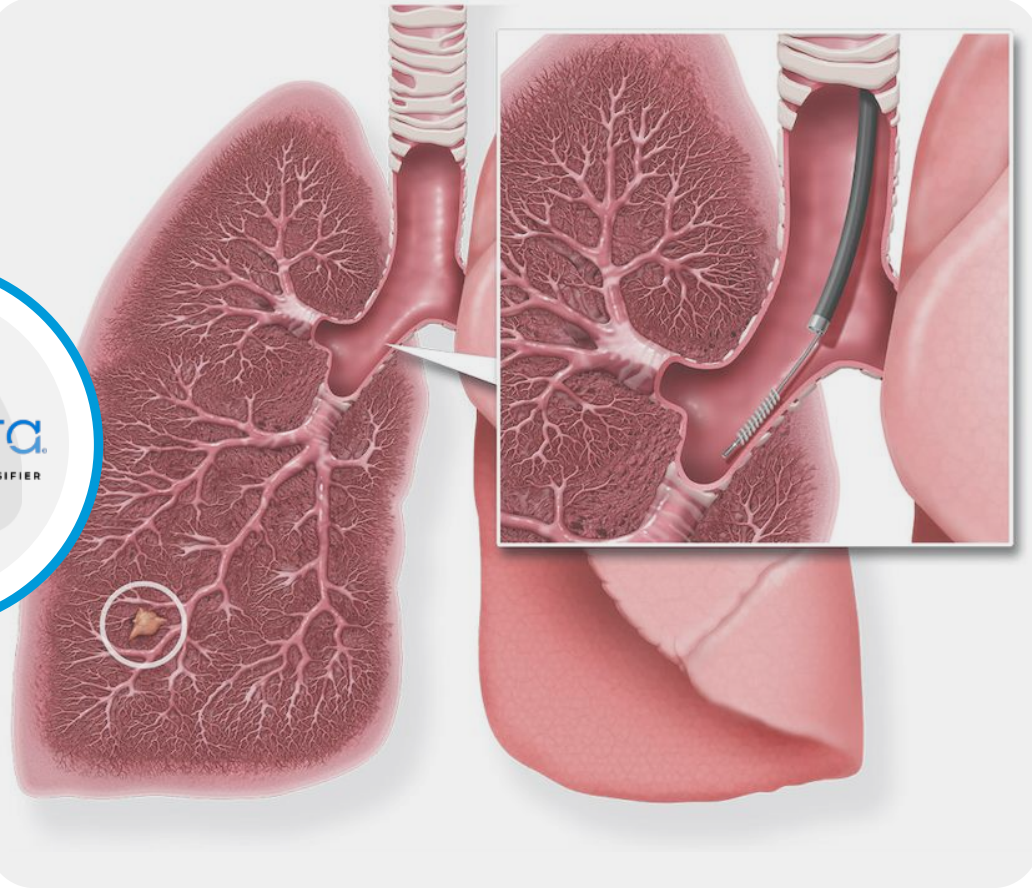
Use of Percepta GSC at Cleveland Clinic

Low-risk result helps avoid taking patients to TTNA and surgery

High-risk result helps supports decisions to proceed to next intervention steps

Facilitates conversations with patients

Percepta
GENOMIC SEQUENCING CLASSIFIER



Spira A, et al. PNAS July 6, 2004 101 (27) 10143-10148
Billatos E, et al. Clin Cancer Res; 24(13) July 1, 2018
Silvestri GA, et al. N Engl J Med; 373:243-251, 2015

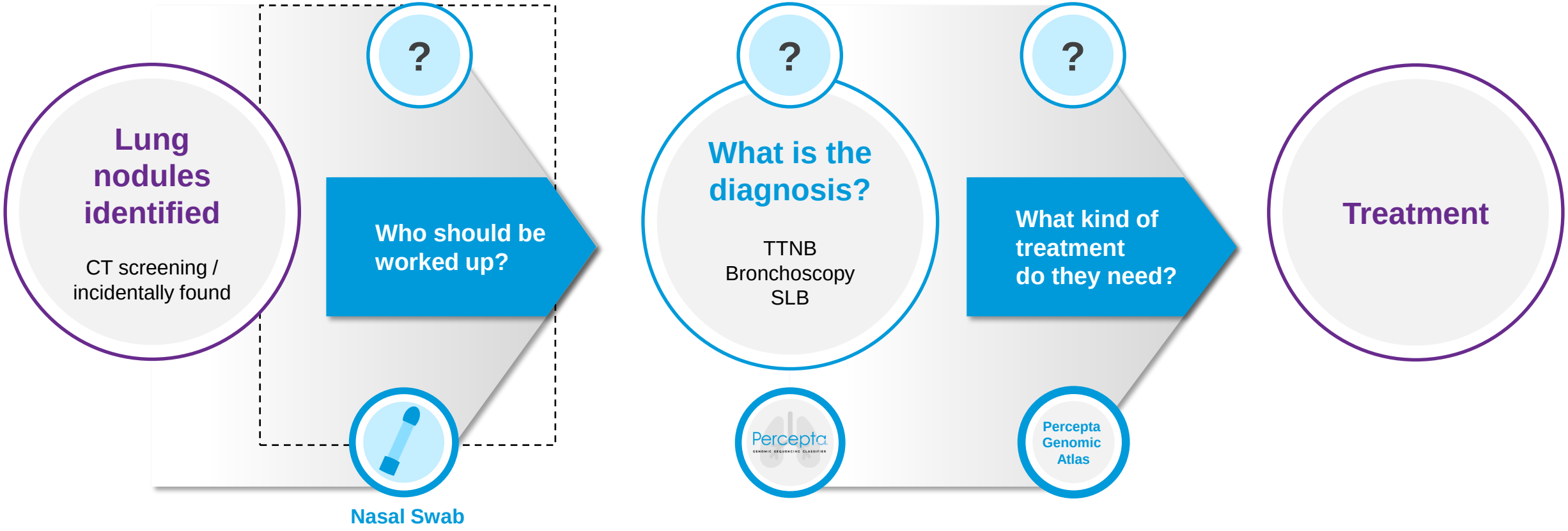
Lung Cancer Portfolio Development Update: Nasal Swab Test & Percepta Genomic Atlas

Giulia C. Kennedy, PhD

Chief Scientific Officer & Chief Medical Officer

Veracyte

Nasal Swab Test: For earlier lung cancer detection and diagnosis



Novel noninvasive genomic test to reduce unnecessary procedures and accelerate time to treatment for those with lung cancer

CHEST 2019: Preliminary data demonstrated novel test's feasibility

Data Presented at CHEST 2019

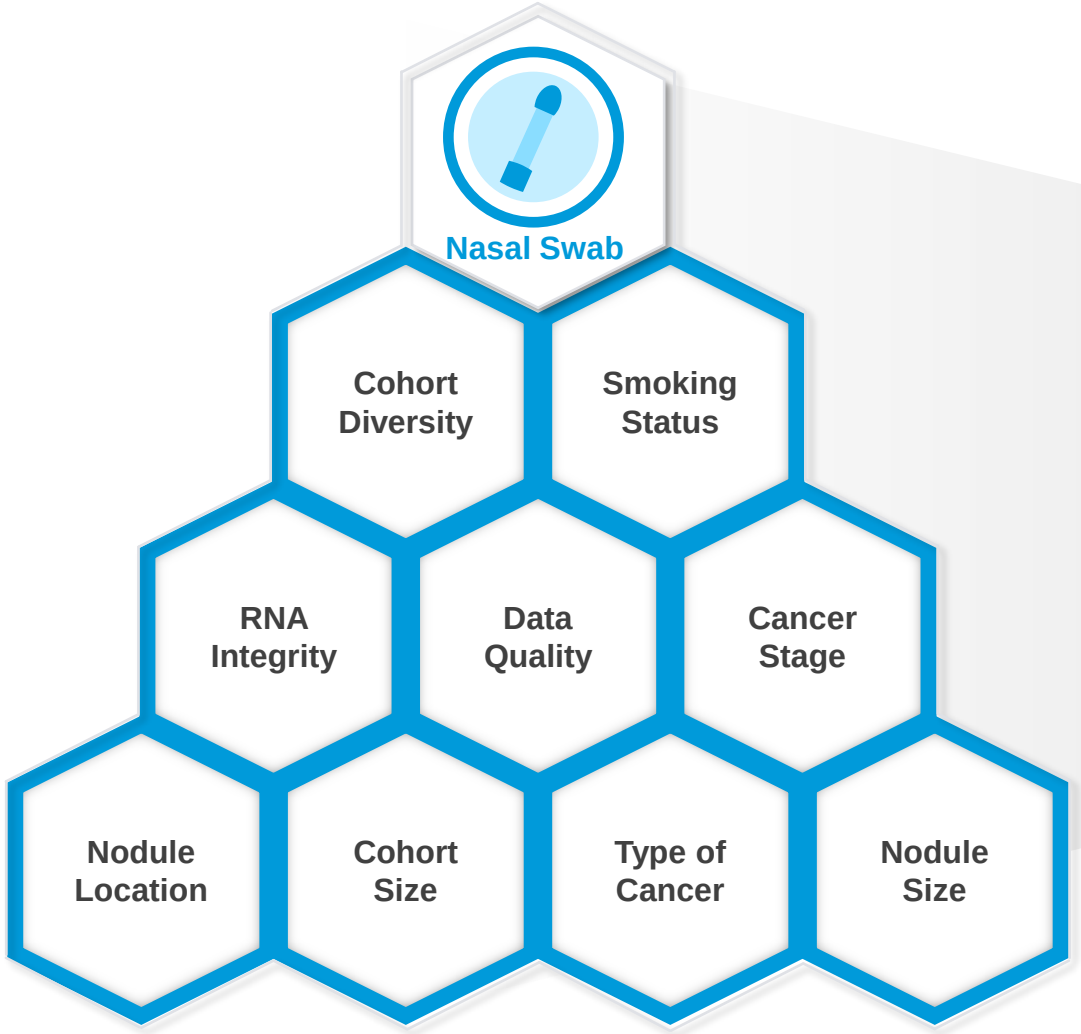
Metric	Performance
AUC	0.86
High Risk Specificity	95%
% Malignant Patients Called High Risk	50%
Low Risk Sensitivity	97%
% Benign Patients Called Low Risk	46%

Demonstrated proof-of-concept for nasal swab test

- **Conducted on single cohort, AEGIS, to investigate feasibility of the nasal swab**
  - AEGIS is a highly specific cohort consisting primarily of high-risk patients
- **AEGIS cohort data demonstrated high specificity and sensitivity of two-cutoff classifier**

NEXT: Evolve models that perform in an expanded clinical setting representing "real world"

Numerous challenges needed to be addressed



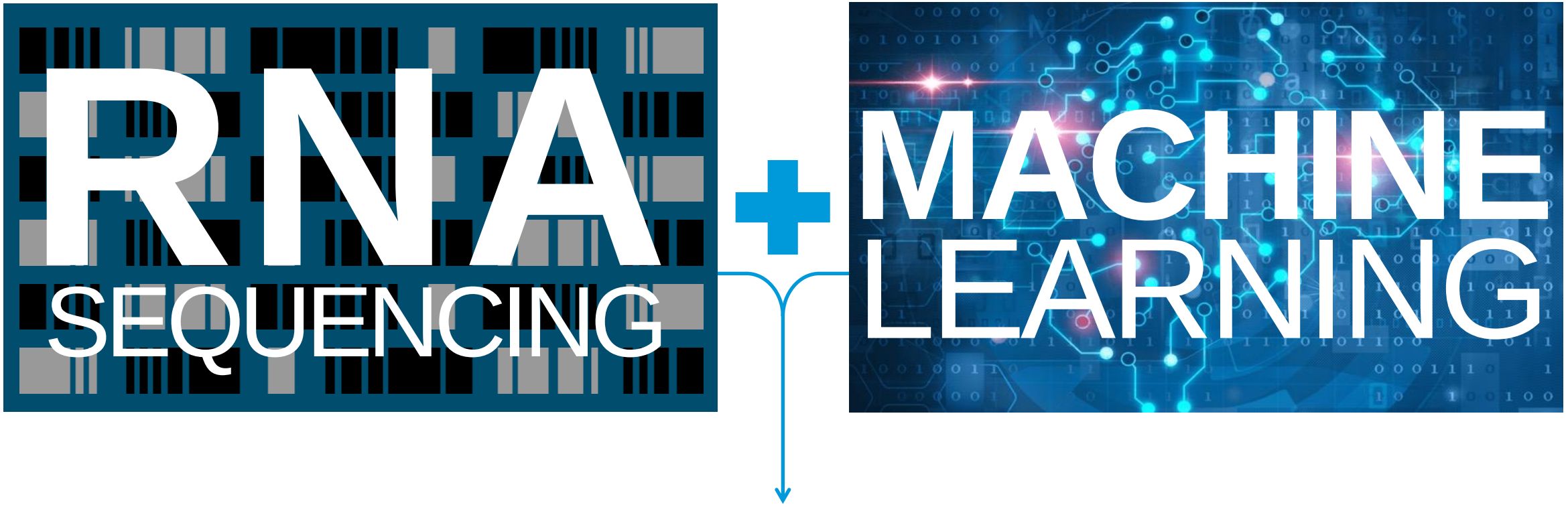
Retrained algorithms with more patient samples

- Added two new cohorts, nearly doubling the training set

Built many models using a variety of structures, feature selection techniques and interaction terms

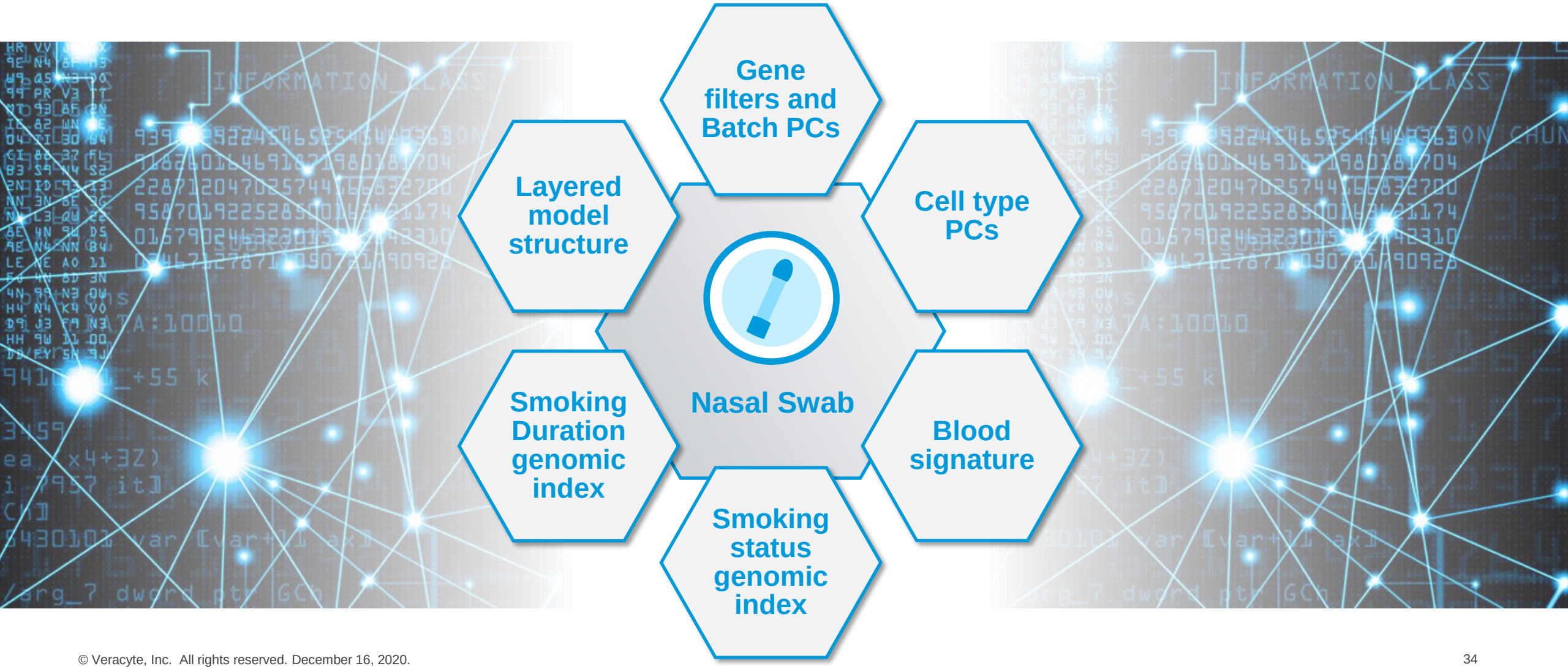
Built and refined genomic indexes to inform on technical factors and clinical features

RNA Sequencing and Machine Learning: A powerful duet



DIAGNOSTIC ALGORITHMS

An “Algorithm of Algorithms” to tackle this complex problem

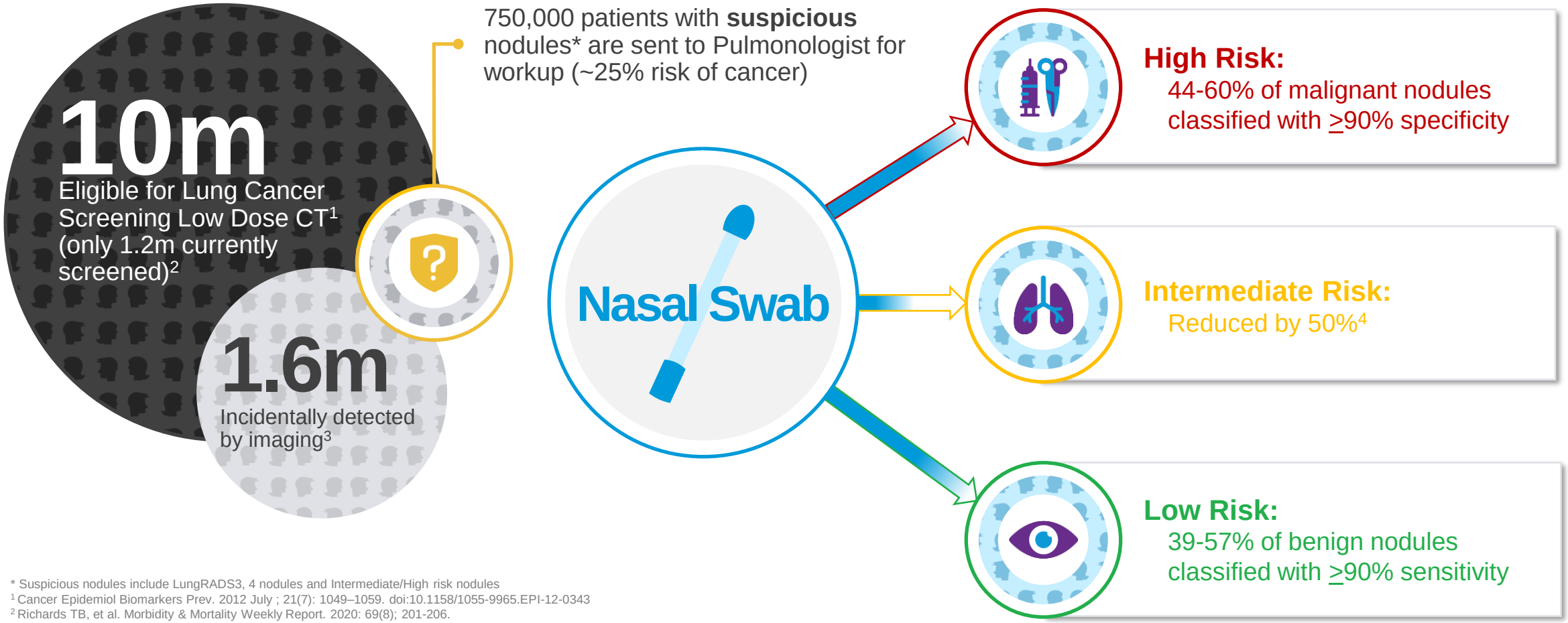


Nasal Swab Test

Evolving algorithms show consistent performance in cross-validation

Performance	CHEST 2019	Dolly	Izzy	Lacey	Layer Cake	Range
Evaluation Method	Independent Test Set N=411/261	Cross-Validation N=802	Cross-Validation N=896	Cross-Validation N=790	Cross-Validation N=802	
Comments	Single Pristine Cohort	Added 2 Cohorts	Clinical Data Cleaned	Optimized on 1 Cohort	Two-Layered Model	
AUC	0.86	0.84	0.80	0.82	0.85/0.82	0.80-0.85
High Risk Specificity (Goal: ≥90%)	95%	90%	90%	90%	91%	90-91%
% Malignant Patients Called High Risk	50%	54%	44%	52%	**60%**	44-60%
Low Risk Sensitivity (Goal: ≥90%)	97%	90%	93%	93%	94%	90-94%
% Benign Patients Called Low Risk	46%	57%	39%	56%	**57%**	39-57%

New risk assessment & diagnostic approach to improve standard-of-care



* Suspicious nodules include LungRADS3, 4 nodules and Intermediate/High risk nodules

[1] Cancer Epidemiol Biomarkers Prev. 2012 July ; 21(7): 1049–1059. doi:10.1158/1055-9965.EPI-12-0343

[2] Richards TB, et al. Morbidity & Mortality Weekly Report. 2020: 69(8); 201-206.

[3] Gould et al., ATS Journal, 2015

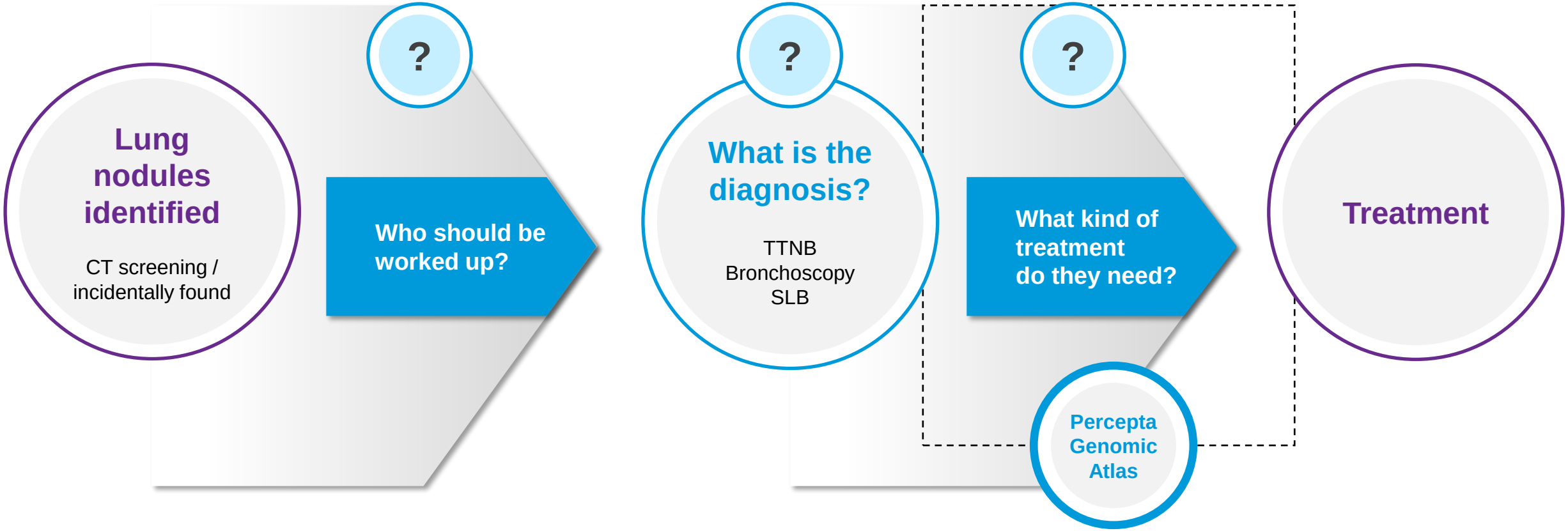
[4] Lamb C, et al. American College of Chest Physicians (CHEST) Annual Meeting, Oct. 2019.

Next steps in developing the Nasal Swab Test for early lung cancer detection

- ✓ Continue to develop models to refine and finalize nasal swab test
- ✓ Lock the classifier and perform analytical validation
- ✓ Unveil the independent validation data
- ✓ Transfer to CLIA Lab and initiate market launch

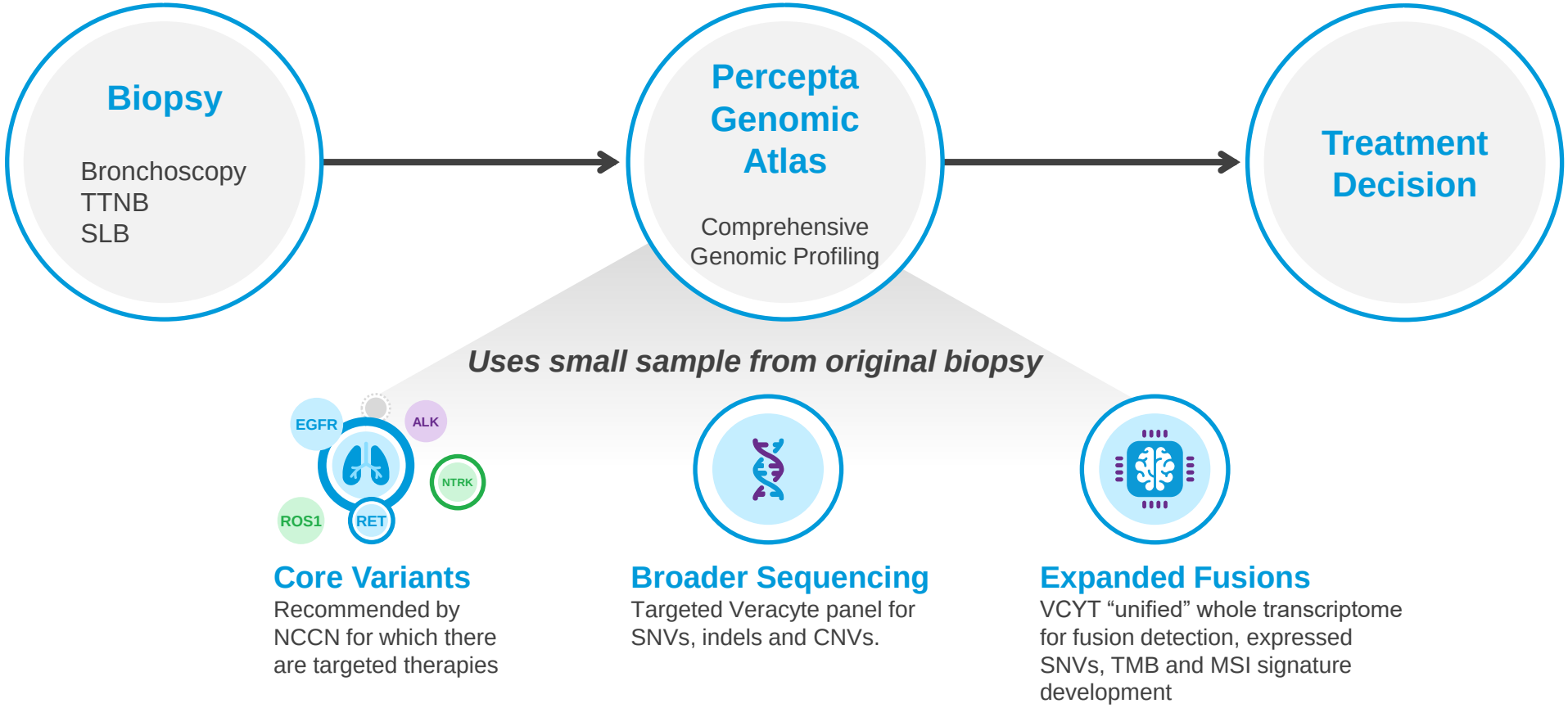
Launch in 2H 2021

Percepta Genomic Atlas



Comprehensive genomic profiling to inform treatment decisions at the time of diagnosis

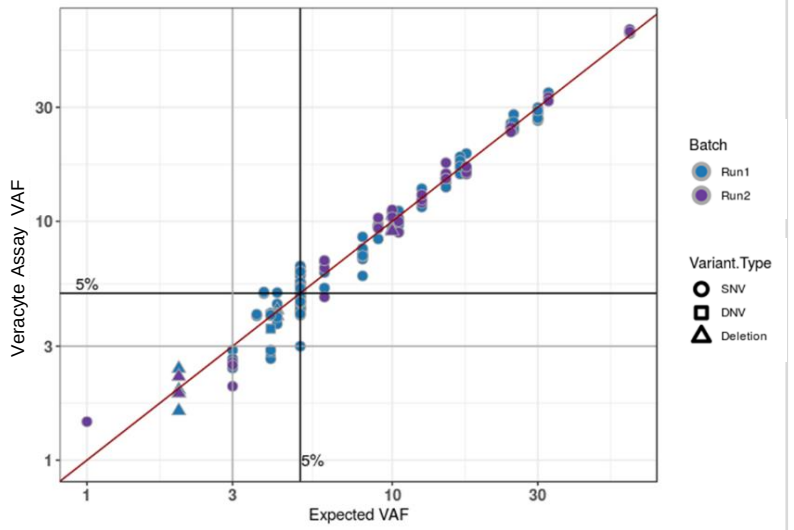
Inform treatment decision at the time of diagnosis



TTNB: transthoracic needle biopsy
SLB: surgical lung biopsy
NCCN: National Comprehensive Cancer Network

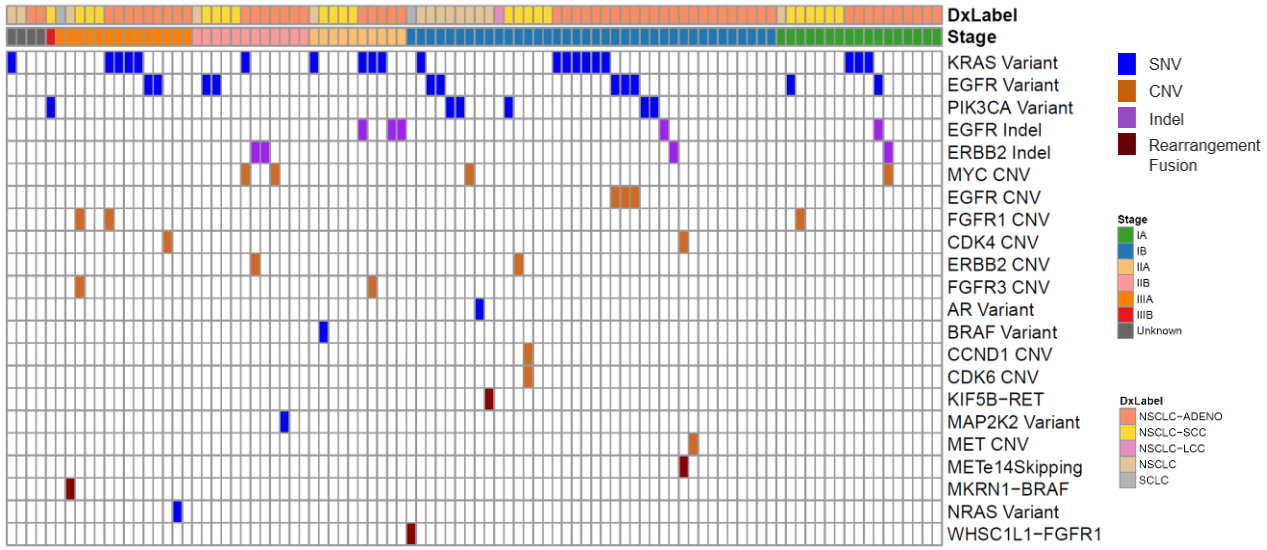
Accurately detects known variants in lung cancer and is reproducible

Demonstrates that Percepta Genomic Atlas is a Sensitive and Reproducible assay



- **In reference samples we detect >95% of SNV's at > 3% VAF**
- **>95% reproducible run to run**

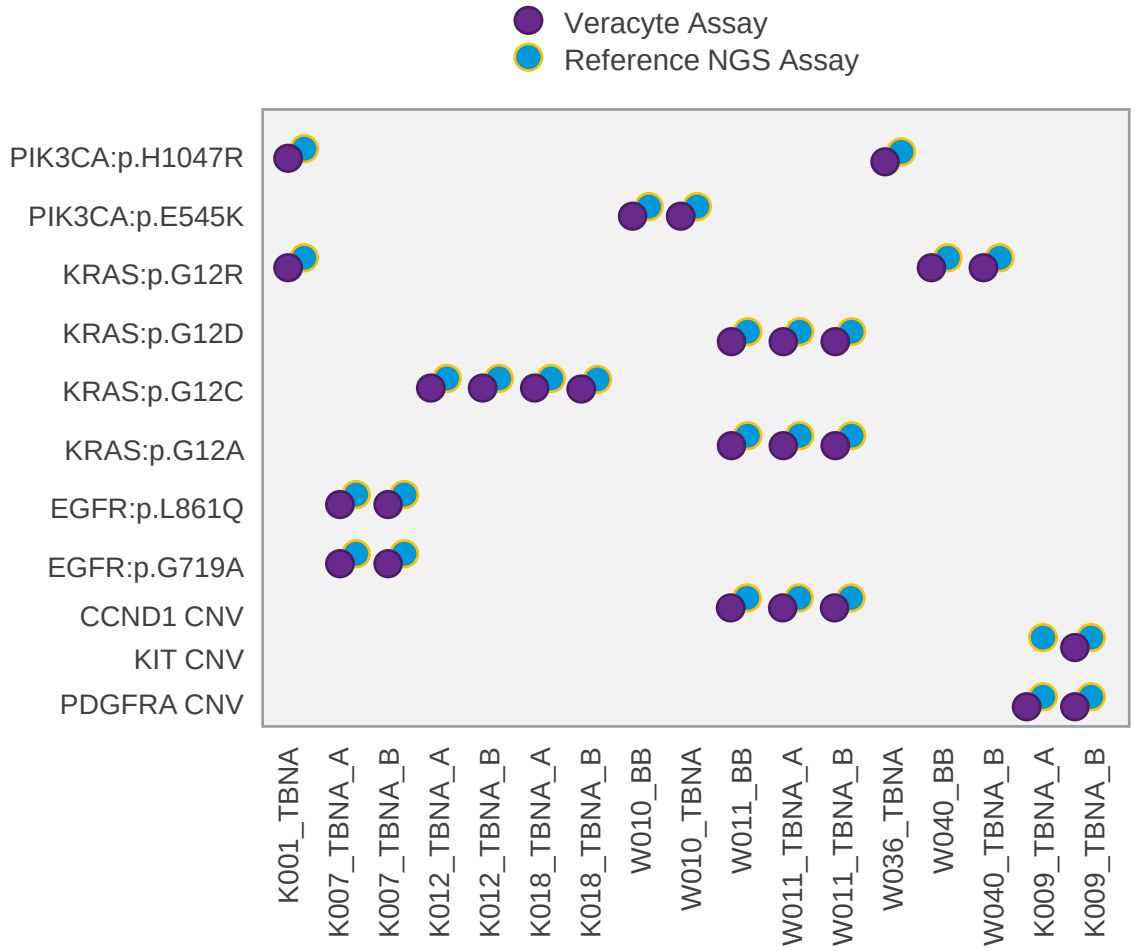
Percepta Genomic Atlas Detects all alteration types including SNV, indels, CNV, fusions and rearrangements



Lung cancer tissues

- **We detect multiple alterations in stage I-III lung cancer tissue including:**
  - EGFR SNV and indels
  - KRAS SNV
  - RET fusion
  - MET exon14 skipping

Percepta Genomic Atlas can detect variants within bronchoscopy biopsies



Performs in bronchoscopy biopsies simply collected in RNAprotect

- **Bronchoscopy biopsies collected into RNAprotect >95% pass DNA/RNA QC**
- **Concordance with reference assay >95%**
- **EGFR, KRAS, PIK3CA SNV detected**

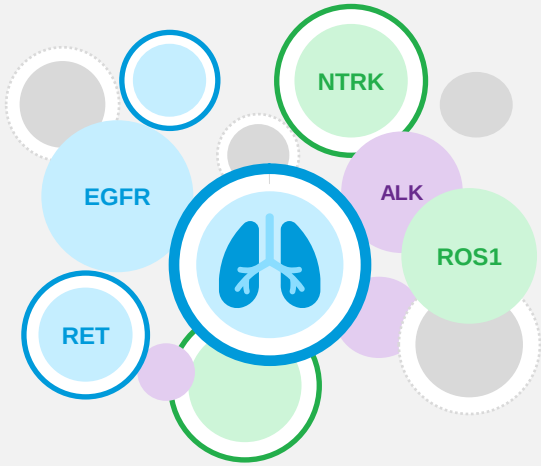
Potential impact of Percepta Genomic Atlas within lung cancer landscape

Faster, More Comprehensive Molecular Testing

Earlier, More Appropriate Treatment

More Efficient Healthcare Deliver

Improved Treatment Outcomes



Comprehensive Biorepository of ALL Stages of Lung Cancer

Biopharma Partnerships

Bringing Targeted Therapies to Earlier Stage Cancer Patients

Precision Medicine Advances

Next steps in developing Percepta Genomic Atlas

- Advance development of test
- Build consortium of investigators
- Advance market launch activities

Launch in 2H 2021

A Lung Nodule Has Been Found: Now What?

Carla R. Lamb, MD, FACP, FCCP

Director of Interventional Pulmonology

Lahey Hospital & Medical Center

Beth Israel Lahey Health

Carla R. Lamb, MD, FACP, FCCP

Background and practice overview

Lahey Hospital & Medical Center
Burlington, MA

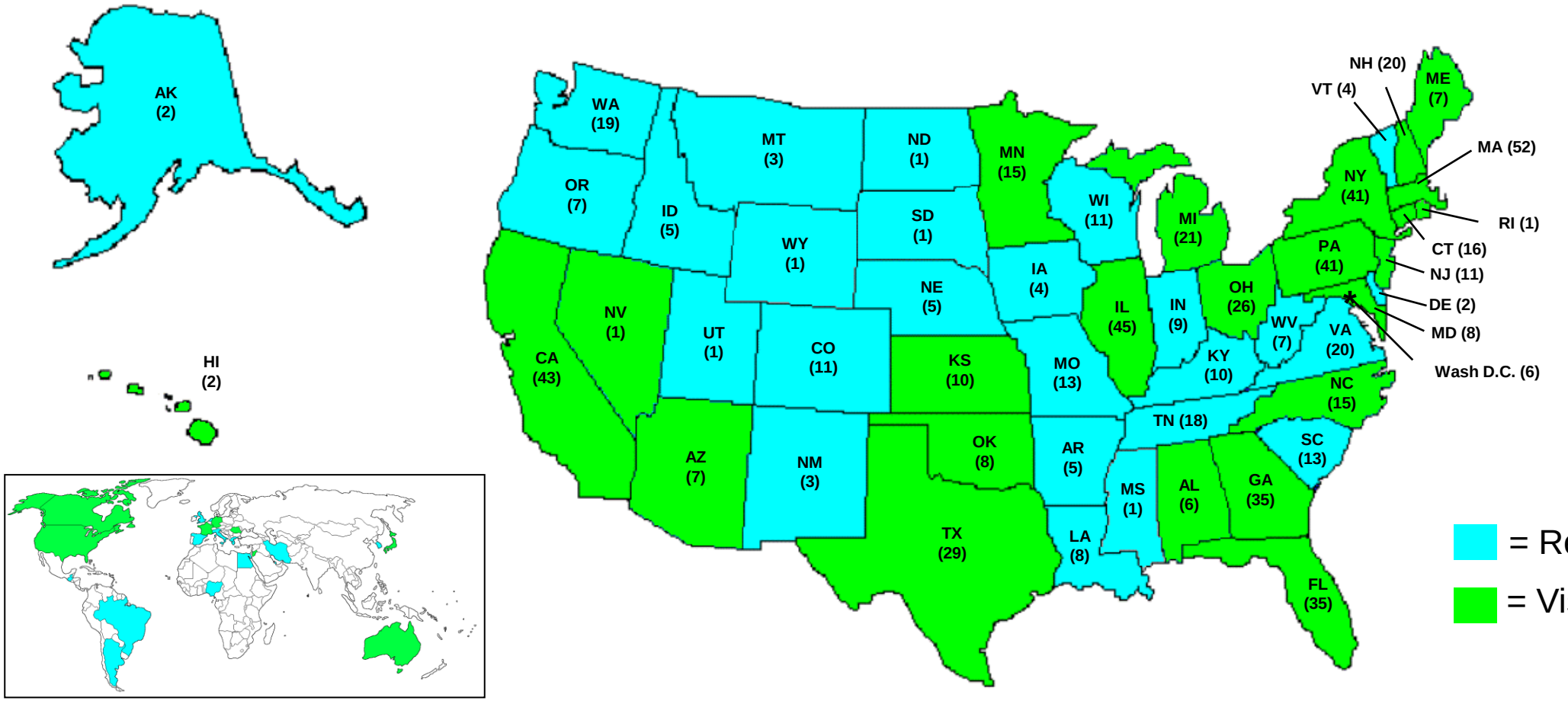
- Largest Lung Cancer Screening Program in the country outside of the NLST
- Director of Interventional Pulmonary Medicine and Interventional Pulmonary Fellowship Lahey Hospital & Medical Center
- Co-founder of the Lahey Multi-Disciplinary Thoracic Oncology Clinic
- Board Member of the Steering and Research Committee of Rescue Lung Rescue Life Society for Lung Screening
- Co-author of the American Thoracic Society/ American College of Chest Physicians policy statement on implementation of low-dose computed tomography CT lung screening programs in clinical practice
- 21 years in practice
- Mission of Lahey Screening program: implemented model throughout the country, patient advocates for CMS / third party coverage for evidence based broader range of qualified screened patients, smoking cessation, promoting lung health and responsible screening programs
- I see at least 15-20 lung nodule patients per week/ 60-80 month

CT Lung Screening Information Outreach

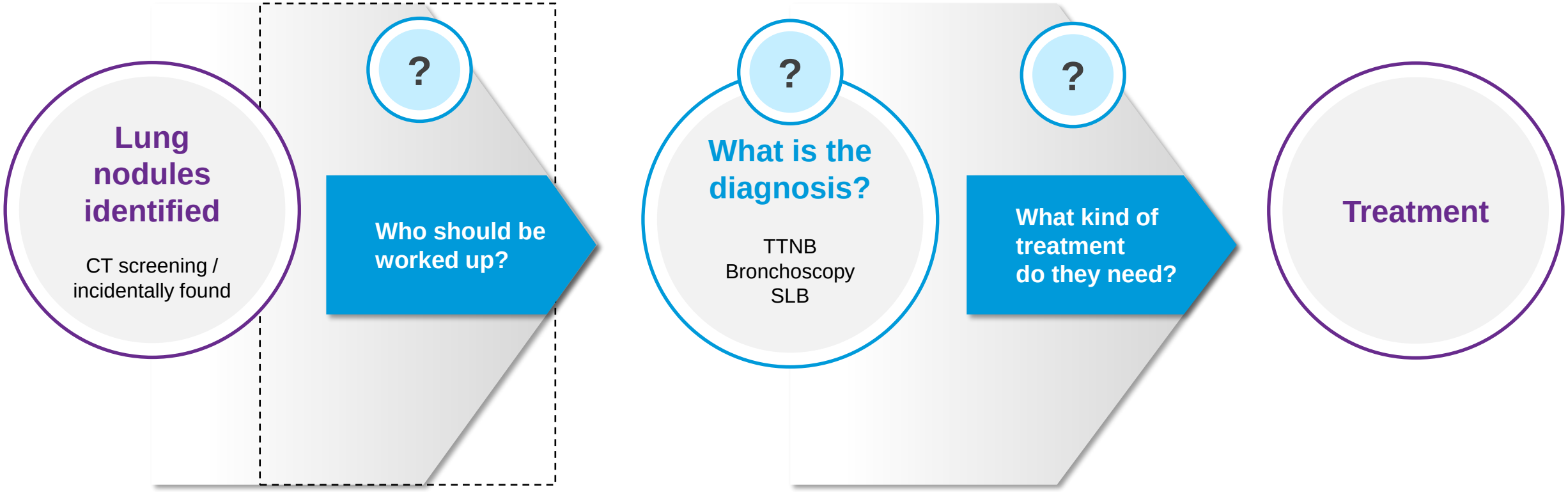
(713 Sites)

Lahey Hospital & Medical Center

Rescue Lung Rescue Life



A lung nodule has been found: Now what?



The current evaluation of lung nodules needs improvement

- **The number of nodules found on CT is growing**
  - Annual rate of incidentally found nodules increased by 95% between 2006 and 2012[1]
  - ~10M people in the U.S. are now eligible for annual LDCT screening
  - New USPSTF screening recommendations could double the number of eligible people
- **Too many patients undergo unnecessary procedures**
  - 35% of patients who underwent surgery had benign nodules[2]
  - 44% of low-risk patients underwent one or more invasive procedures for a benign nodule[2]
- **Other patients may not get the care they need – or their cancer may be missed**
  - Physicians often do not follow guidelines based on patient risk (likely due to lack of confidence in risk assessment)
  - In patients for whom surgery was recommended, physicians opted for less-aggressive management 75% of the time[2]

of **screening** lung nodules are benign

of **incidentally** detected lung nodules are benign

[1] Gould MK, et al. Am J of Resp and Critical Care Med 2015 192(10): 1208-1214.
[2] Tanner NT et al. *CHEST* 2015; 148(6):1405-1414.

Lung cancer screening saves lives AND increases the need for effective nodule management

Screening Saves Lives

- **National Lung Screening Trial (NLST)**
  - Large randomized trial of screening LDCT scan versus Chest radiograph in high-risk individuals
  - Showed a lung cancer mortality benefit of 20% and all cause mortality reduction of 6.7%
- **The NELSON Trial**
  - Large European randomized trial comparing LDCT with a control group with no screening
  - Showed a 24% reduction in lung cancer deaths (10 year follow up)

Screening Expands Number of Nodules Found

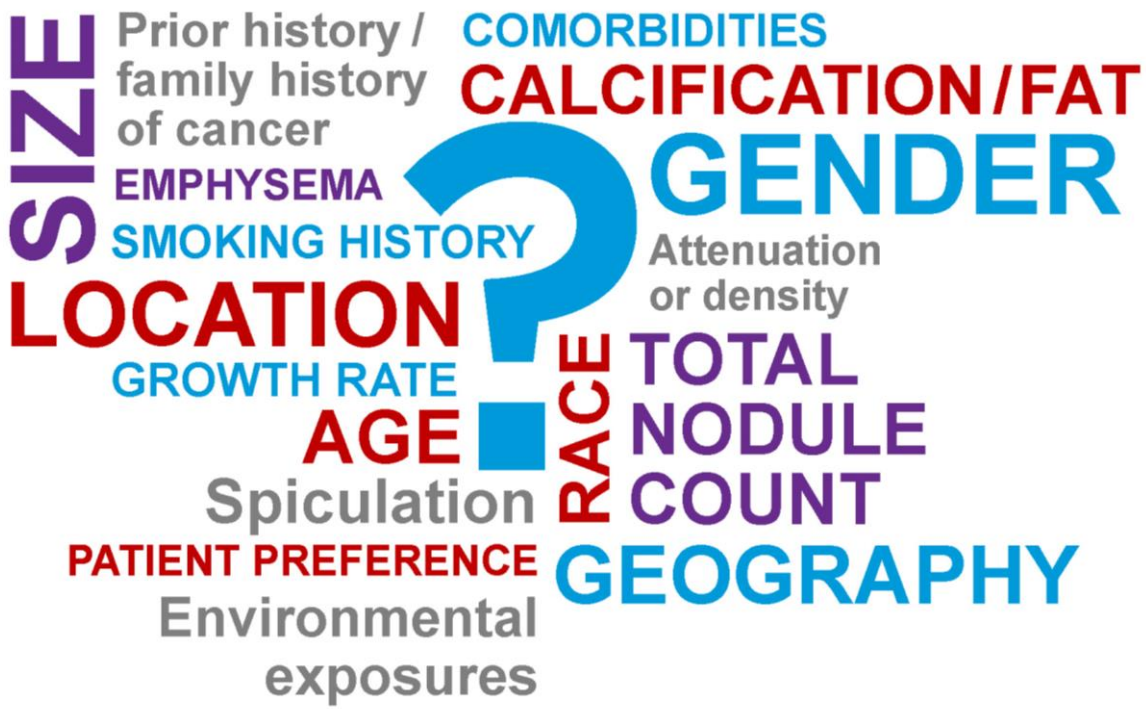
- **Current guidelines recommend annual low-dose CT screening based on age, smoking history and other risk factors.**
  - USPSTF/NCCN/IELCAP
  - ~10M people in U.S. meet criteria
- **New USPSTF recommendations proposed to save more lives and reduce disparities**
  - Lower the age limit to 50-80 years (from 55-80)
  - Decrease smoking history to 20 pack years from 30

A better way to diagnose lung nodules will make screening more effective – and potentially more appealing to physicians

National Lung Screening Trial Research Team, Aberle DR et al. N Engl J Med. 2011 Aug 4;365(5):395-409.
de Koning HJ et al. N Engl J Med. 2020 Feb 6;382(6):503-513.
Moyer VA; U.S. Preventive Services Task Force. Ann Intern Med. 2014 Mar 4;160(5):330-8. doi: 10.7326/M13-2771.

Determining lung cancer risk in nodules found on CT is often challenging

Many factors need to be considered



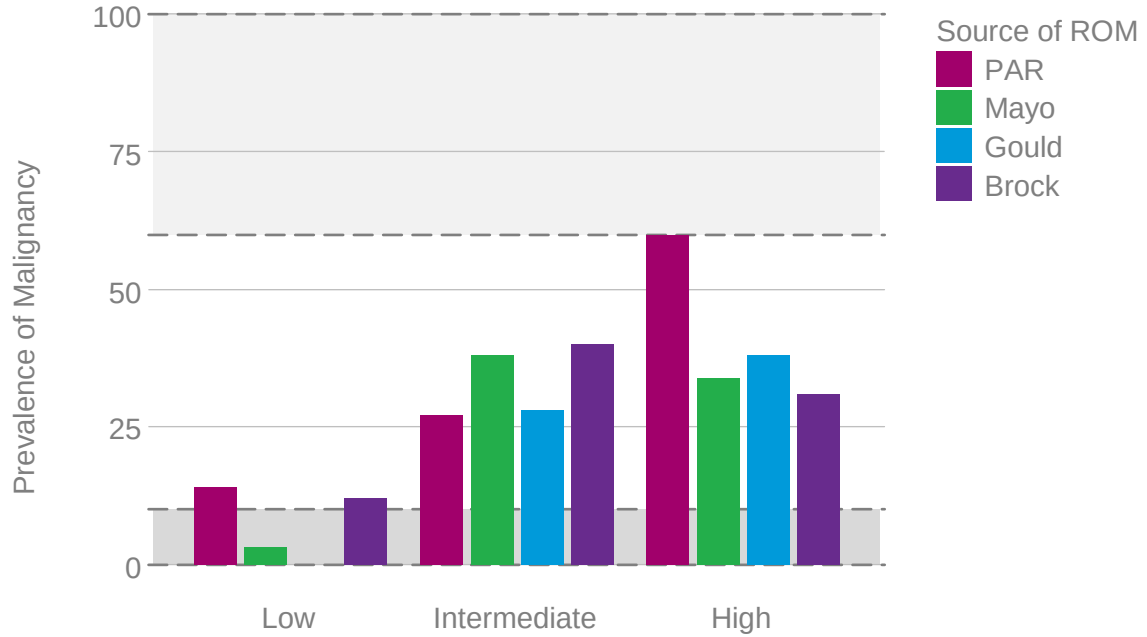
High Risk
Send Patient Directly to Surgery and/or Treatment

Intermediate Risk
Conduct Bronchoscopy

Low Risk
Monitor with Low Dose CT

Limitations of risk prediction model performance

- **Risk prediction models have fair–moderate performance as they are too dependent upon the prevalence of malignancy**
- **Relying on a single prediction model reduces their overall effectiveness across populations**
- **Physician assessed risk (PAR) has been found to perform better than the validated prediction models but are limited**
  - Subjective nature of risk assessment dependent upon experience, knowledge and intuition of the physician
  - Variability among different clinical practices



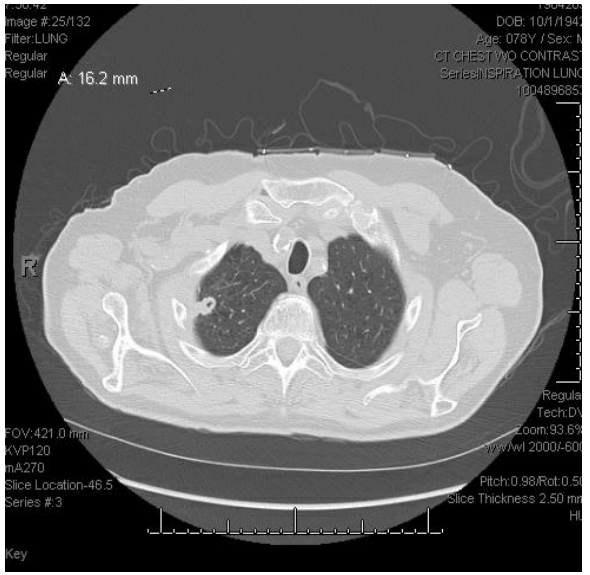
Risk Calculator Comparison

- **Poor performance in classifying patients as high risk or low risk for lung cancer**
- **Inconsistent results between models**

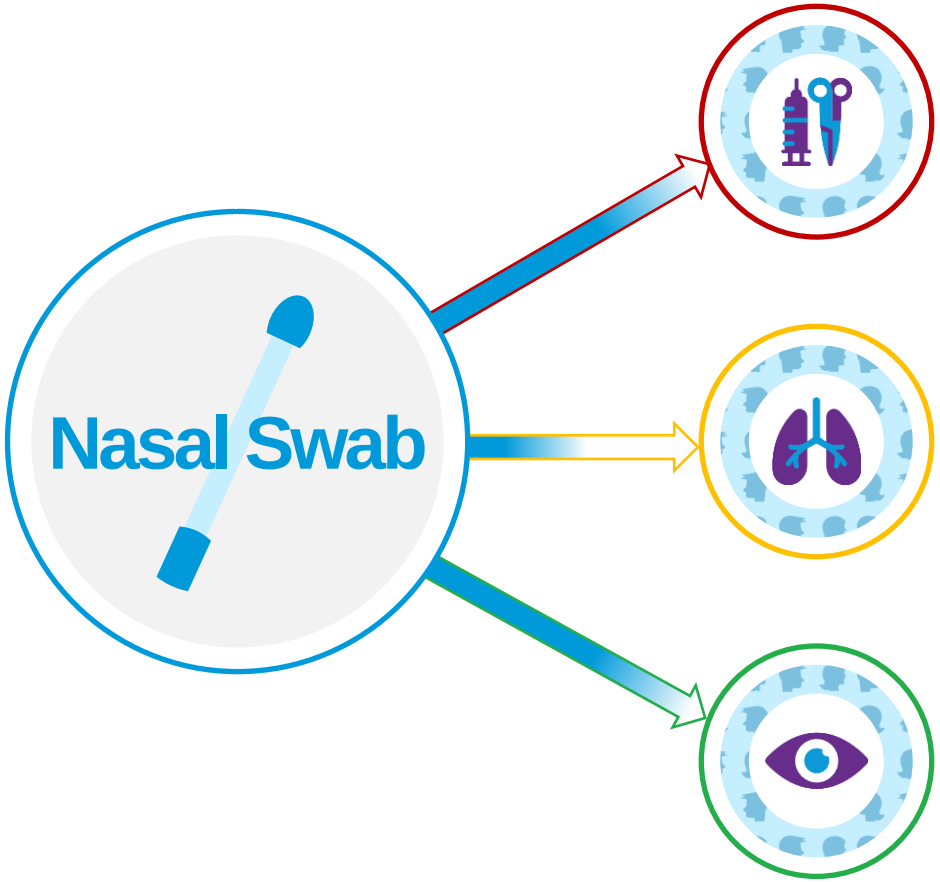
Tanner N et al. CHEST 2017
Balekian AA et al. Annals Am Thor Soc 2013
Tanner N et al. CHEST 2015
Yu D et al. A comparison of models predicting pretest probability of malignancy in patients undergoing diagnostic procedures for pulmonary nodules. Presented at CHEST 2019 New Orleans LA

Case Study

- **77-year-old Caucasian male with former 20 pack / year tobacco history**
- **Frequent travel to Arizona to hunt and camp**
- **Evaluation for shoulder pain new lung nodule identified incidentally**
- **Chest CT / PET scan**
- **Coccidioidomycosis titer positive 1: 8**
- **Sputum culture negative**



An accurate, noninvasive genomic test could be a game changer



High Risk
High Specificity

Intermediate Risk

Low Risk
High Sensitivity

- **Identify as many true cancer patients as possible so they can get complete diagnosis and treatment quickly**
- **Identify as many true benign patients as possible so they can be directed to CT surveillance**
- **Help solve the problem of unnecessary work-ups/ procedures and missed cancers that can occur today**

Supports a Patient-Focused Approach

Informing Targeted Treatment Decisions in Lung Cancer: The Unmet Need

Michael A. Bernstein, MD, FCCP

Associate Director for Pulmonology

and Critical Care at Stamford Health

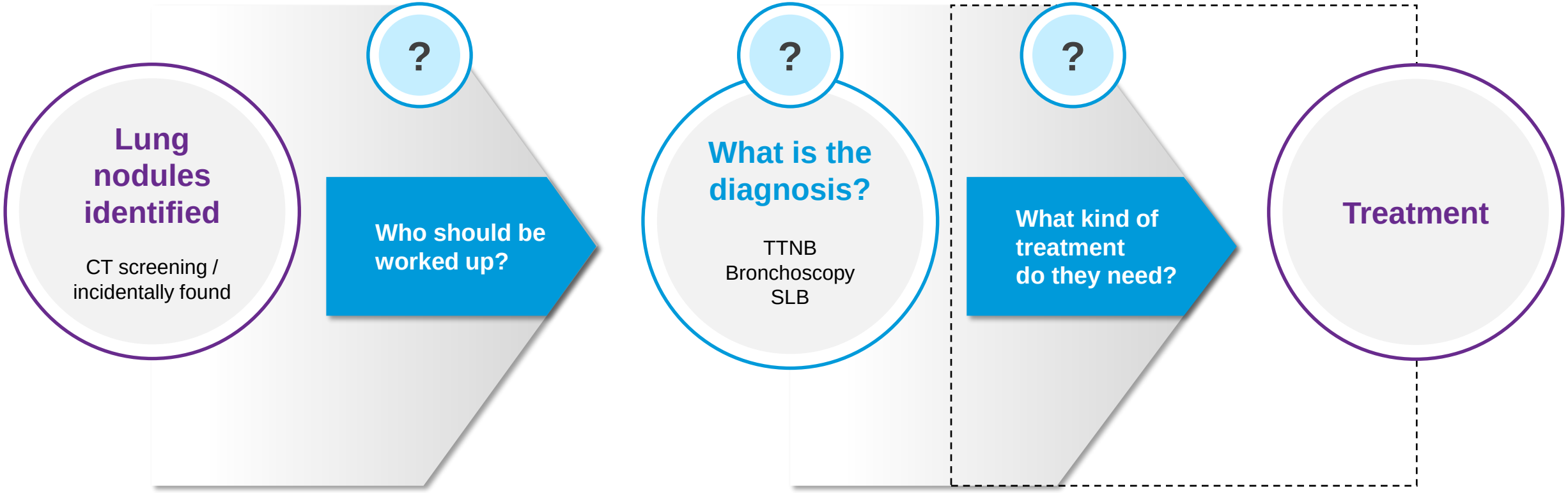
Michael A. Bernstein, MD, FCCP

Background and practice overview

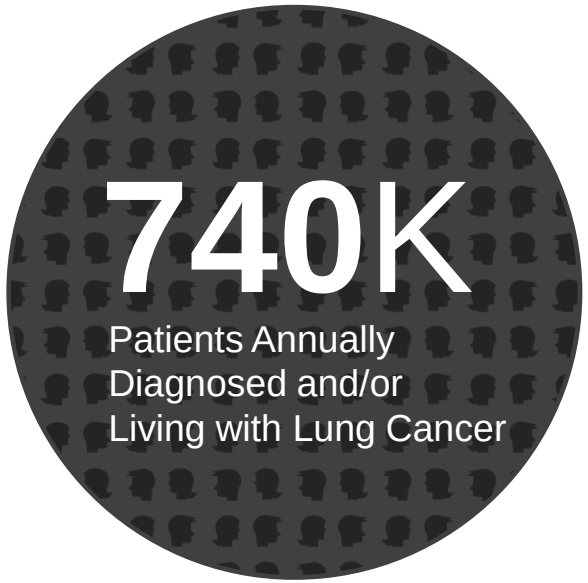
Stamford Hospital
Stamford, CT

- Undergraduate/Medical School: Duke University
- Internship/Residency/Fellowship: Mount Sinai Medical Center, NY
- Board Certified in Internal Medicine, Pediatrics, Pulmonary Diseases, Critical Care, Hospice/Palliative Care, Interventional Pulmonary, COVID-19
- Associate Director of Pulmonary and Critical Care Stamford Health/Stamford Hospital
- Head, Interventional Pulmonary; Co-Director Lung Cancer Screening Program and Lung Nodule Clinic
- Teaching Faculty, Vagelos College of Physicians and Surgeons, Columbia University
- Blended Mix of “Academic” and “Private Practice” Pulmonary Medicine
- ~500 Lung Cancer Screening CTs annually
- Evaluate approximately 250 lung nodules annually
- Perform about 200 advanced bronchoscopies annually (EBUS and Navigational Bronchos)
- Multidisciplinary Tumor Board with Affiliation with Dana Farber Cancer Collaborative

Patient is diagnosed: How do we determine the right treatment?



Molecular testing is key to optimizing targeted therapy in lung cancer



~350,000
Patients eligible for comprehensive genomic profiling[1]

- **Up to 85% of lung cancers have potentially actionable driver mutations.[2]**
- **Use of targeted therapy prolongs survival 2-3 times more than chemotherapy[3,4]**
- **Guidelines (NCCN/ASCO/IASLC) recommend testing for gene mutations to guide treatment**
- **The number of biomarkers continues to grow**

[1] Seer.cancer.gov. [2] Jordan EJ, et al. Cancer Discov. 2017;7(6):596-609.
[3] Nadler E, et al. Clin Lung Cancer. 2018;19(4):360-370. [4] Gutierrez ME, et al. Clin Lung Cancer. 2017;18(6):651- 659.

Patients are not getting the molecular testing they need

Example (study of 300 patients)[1]:

- Only 21% of patients with biomarker testing had results available at their initial oncology consultation
- Those with biomarker testing results had shorter times to treatment decision (0 vs. 22 days) and time to treatment initiation (16 vs. 29 days)
- 13% underwent repeat biopsy for molecular testing after the initial consultation
- Of those with EGFR+ or ALK+ results, 19% had already started chemotherapy

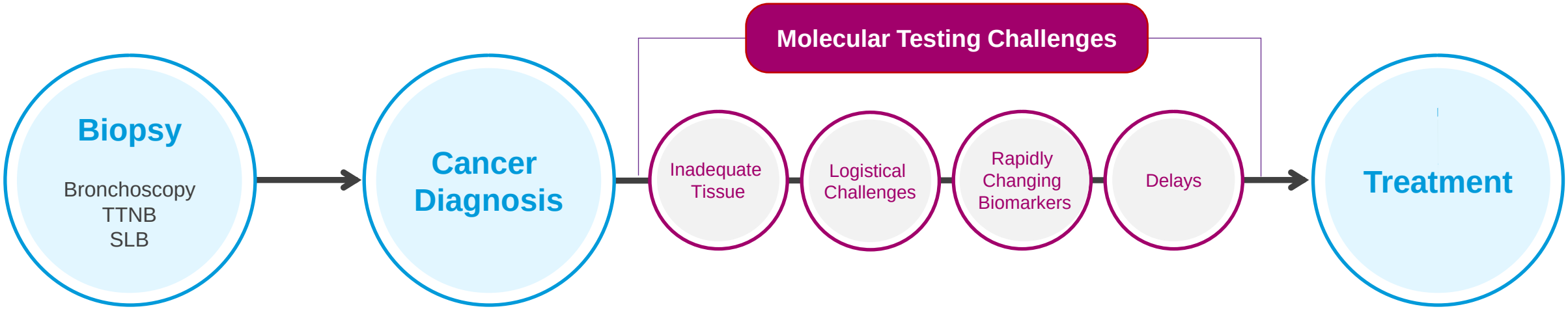
Example 2 (15-site study of >800 patients)[2]:

- Only 59% were tested for EGFR and ALK; only 8% were tested for all NCCN-recommended genes
- For patients tested for EGFR and ALK, time to results was 23 days
- 52% of those not tested for EGFR or ALK received chemotherapy
- Median overall survival was lower (12.7 months vs. 31.8 months for those with chemo vs. targeted therapy)

Leads to inappropriate or delayed therapy

[1] Lim C, et al. Ann Oncol 2015;26 (7):1415-1421.
[2] Gutierrez, ME, et al. Clin Lung Cancer. 2017;18(6):651-659.

Molecular testing: The key barriers



Inadequate tissue

- Requires another biopsy (pulmonologist never knows if he/she has enough tissue)
- Pathologists hesitant to send out tissue (no standardization)
- Patient anxiety/distress/compliance may preclude getting more tissue sample

Rapidly Changing Biomarkers

- Difficult for pulmonologists to know which tests to order
- Need testing company to include current and future biomarkers

Logistical Challenges

- Too many different types of samples, collection tubes, biomarkers, etc.
- Lack of infrastructure for obtaining and sending samples

Delays

- Reflex single-gene testing (e.g., EGFR 3-5 days, ALK 3-5 days, etc.)
- Additional procedures to get more tissue
- Oncologist may start chemo if does not have molecular results

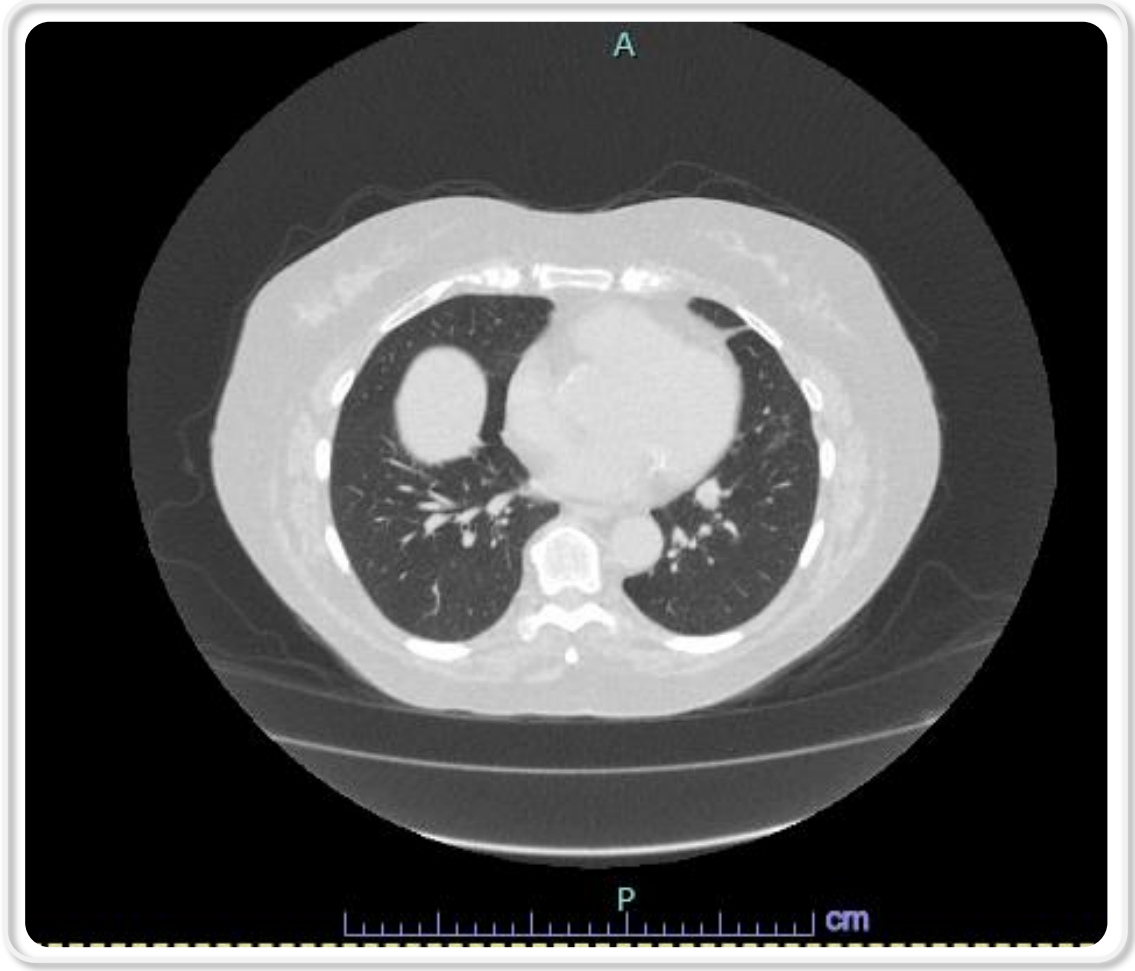
Case Study

Lung cancer patient case study

78 year-old retired eighth grade teacher:

- 30 pack year smoker who quit 2 years ago
- presented with 2 weeks of shortness of breath

Evaluation revealed a 1.6 cm left lower lobe solitary lesion with mediastinal and hilar adenopathy

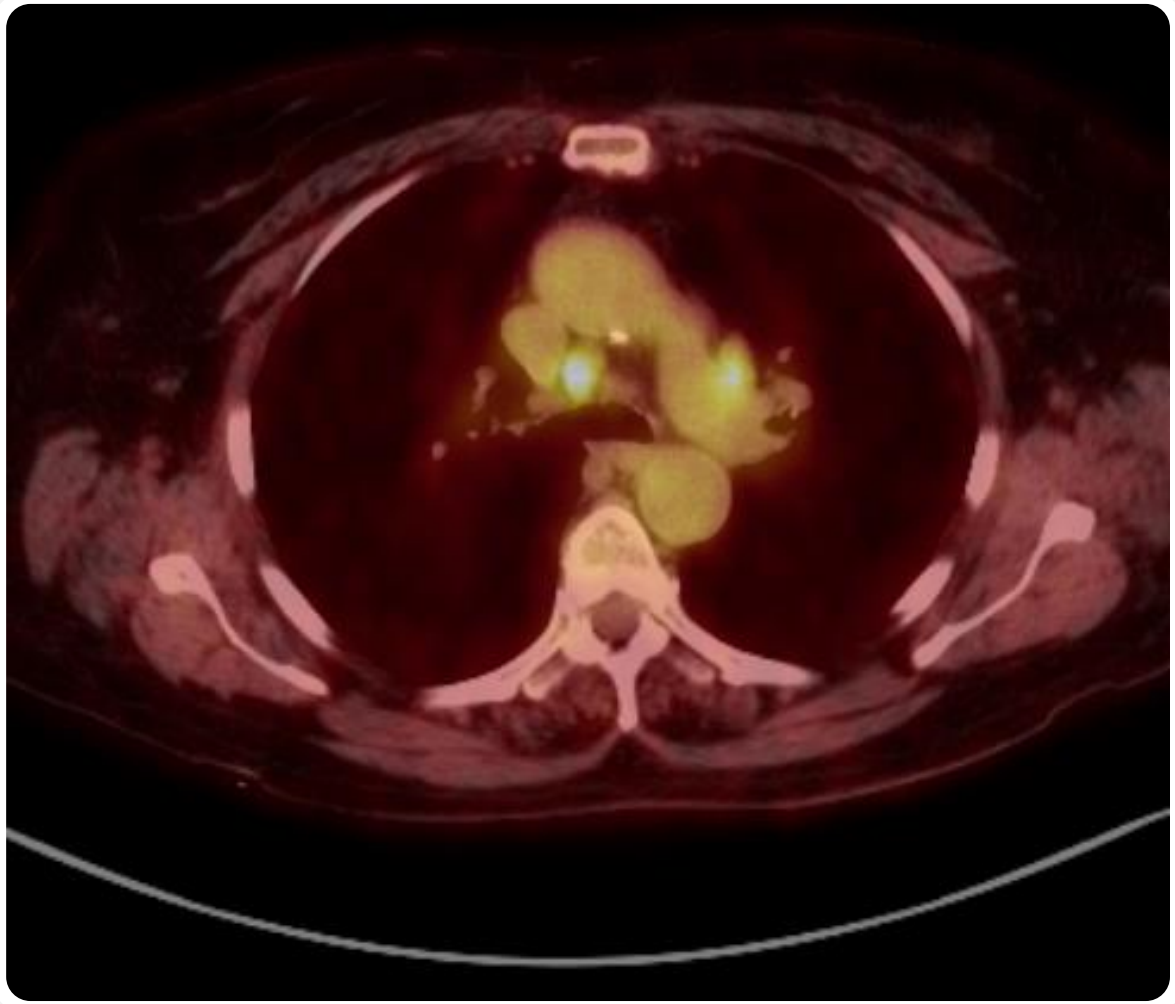


Case Study

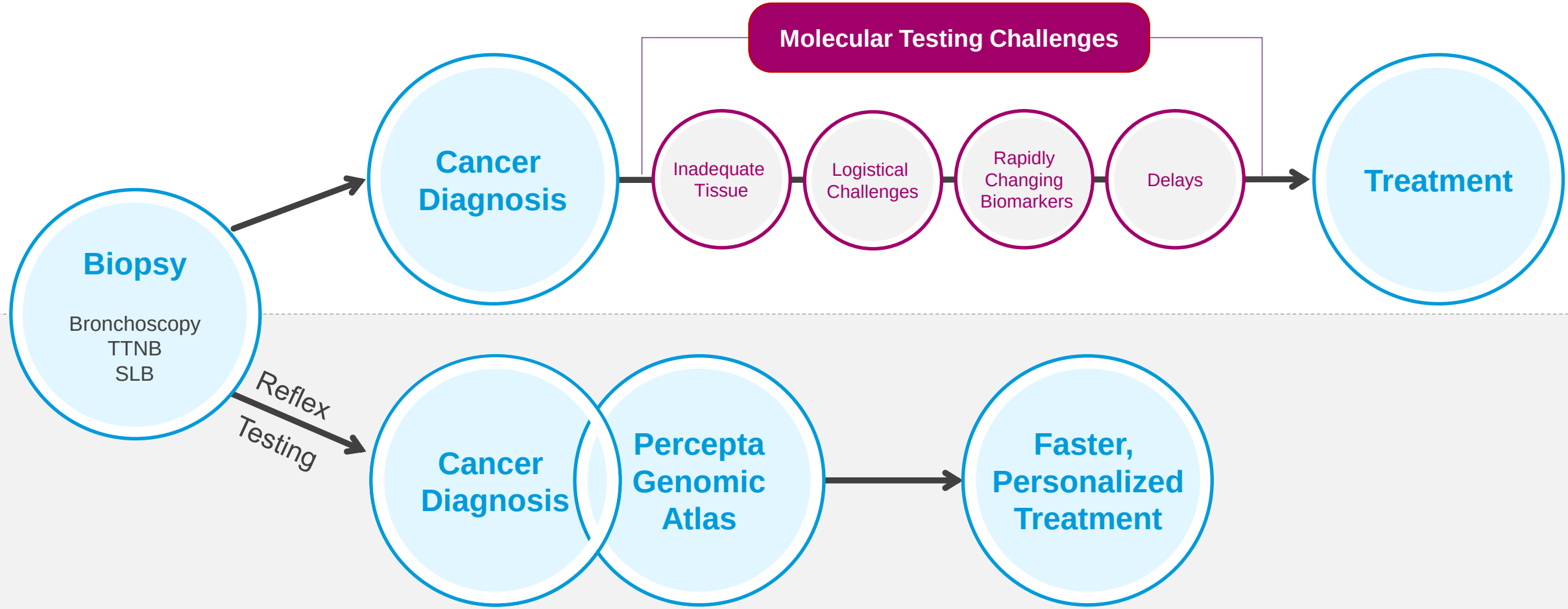
Lung cancer patient case study *(Continued)*

- Outpatient PET scan showed multiple hilar and mediastinal lymph nodes with an elevated SUV
- Navigational bronchoscopy with endobronchial ultrasound performed of the lymph nodes and to the mass
- Pathology report showed adenocarcinoma in the lung nodule and the lymph node
- Stage: T1b, N3, M0 IIIB Lung Cancer (incomplete molecular markers)

- **INSUFFICIENT MATERIAL FOR MOLECULAR TESTING**
- **NEXT STEPS NEEDED:**
  - Re-biopsy to get adequate tissue for molecular testing



Percepta Genomic Atlas could overcome many of today's challenges



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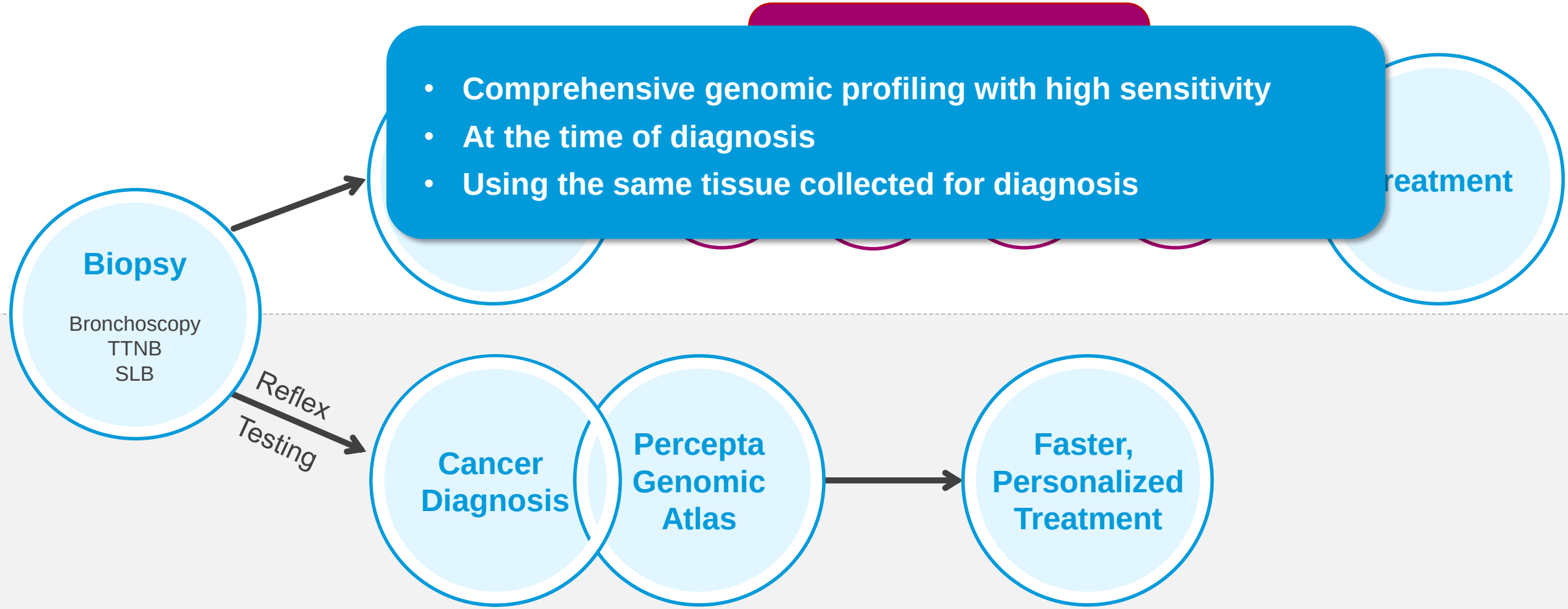

KOL Vision for Solutions: A Round Table Talk

Michael Bernstein, MD, FCCP
Stamford Health

Sonali Sethi MD, FCCP, DAABIP
Cleveland Clinic

Moderator
Bonnie Anderson
Chairman & CEO

Carla Lamb, MD, FACP, FCCP
Beth Israel Lahey Health

Giulia Kennedy, PhD
Chief Scientific & Medical Officer

Investor Q&A

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