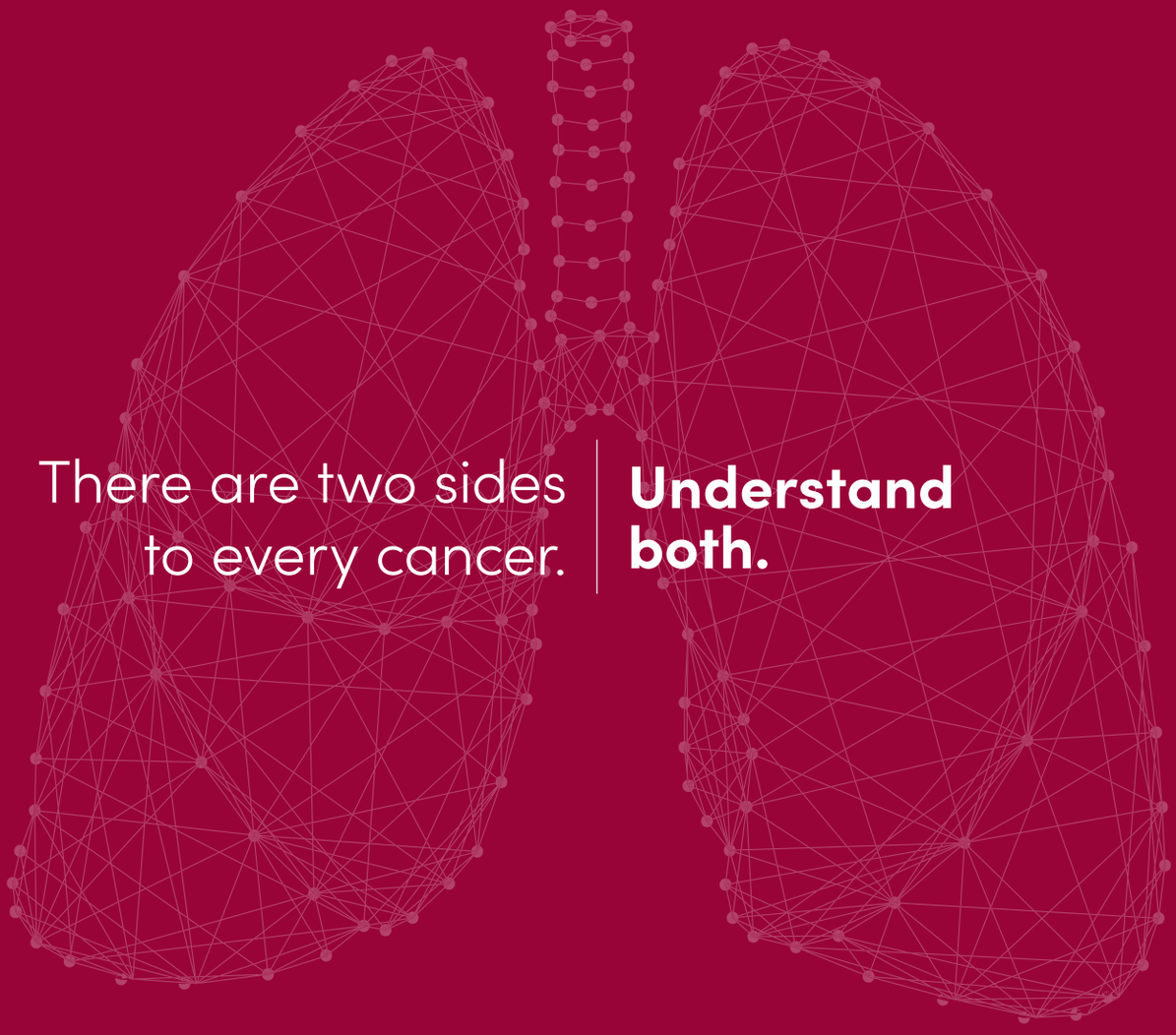
biodesix lung® REFLEX



There are two sides to every cancer. | **Understand both.**

**MORE COMPLETE**
GENOMIC & PROTEOMIC TESTING

**SWIFT**
72 HOUR TURNAROUND TIME

**ACTIONABLE**
MOLECULAR RESULTS FROM A SIMPLE BLOOD DRAW

**PERSONALIZED**
APPROACH TO LUNG CANCER CARE

biodesix®

BIODESIX LUNG REFLEX®

# Uncover Both Sides of Lung Cancer

## with integrated blood-based genomic and proteomic results

genestrat® genomic test | **Actionable Tumor Mutations**

veristrat® proteomic test | **Patient's Immune Response to Cancer**

**Delivers guideline-recommended, blood-based mutation results in 72 hours[1]**

EGFR | ALK | ROS1 | RET | BRAF | KRAS

**Identifies a chronic inflammatory disease state associated with aggressive cancer[2]**

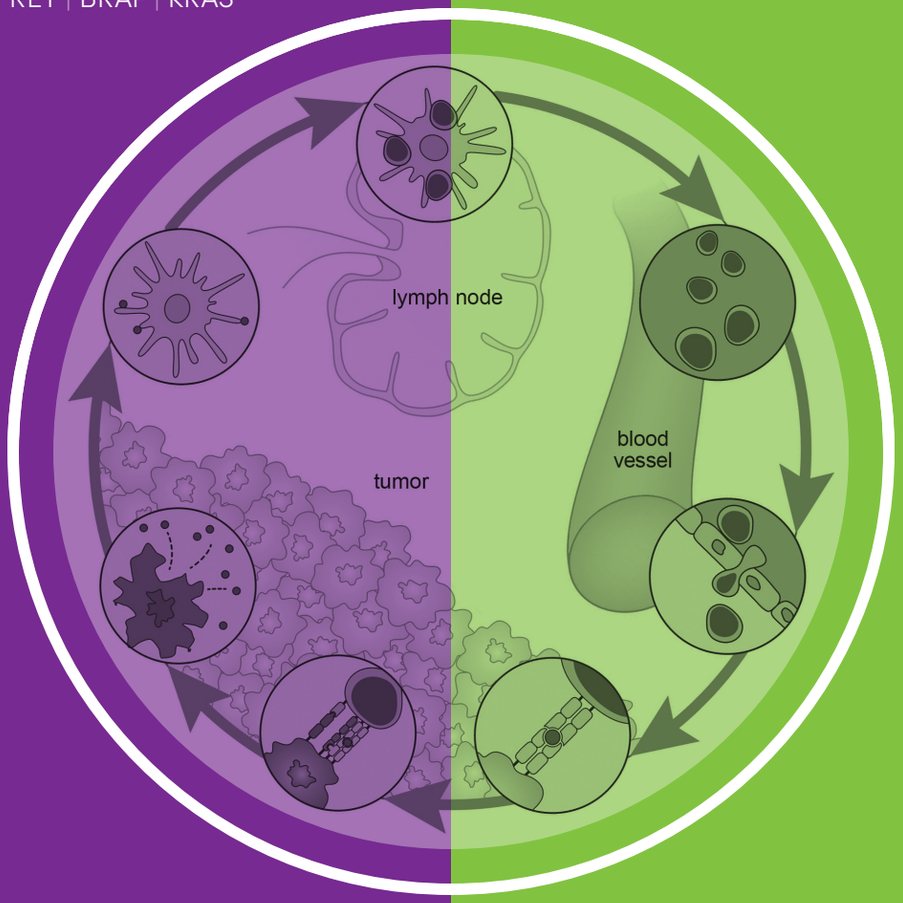



Image adapted from Chen and Mellman 2013 for educational purposes[3]

The genes in the **GeneStrat®** test and the **VeriStrat®** proteomic test are covered by Medicare and many private payers. No out-of-pocket expense for covered Medicare or Medicaid patients.

## WHEN DO I ORDER BIODESIX LUNG REFLEX?

### AT DIAGNOSIS

- At time of biopsy or surgery*
- Upon confirmed lung cancer diagnosis
- At the first oncology visit

### AT PROGRESSION

- For longitudinal monitoring of resistance mutations and changes in disease state
- At oncology visit for lung cancer progression

## WHO IS ELIGIBLE FOR TESTING?

**NSCLC**

**ALL STAGES**

**ALL HISTOLOGIES**

**ALL LINES OF THERAPY**

## WHY IT MATTERS?

"It is recommended that all physicians caring for patients with lung cancer should begin **conversations about the patient's prognosis and goals of care at the time of the diagnosis** and continue these throughout the course of the illness."

*CHEST* Grade IB Recommendation[4]

*testing is performed upon confirmed diagnosis of NSCLC

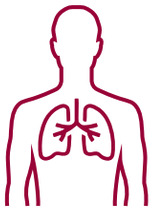
BIODESIX LUNG REFLEX®

# Expediting Time To Treatment

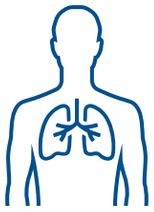
## with swift, blood-based molecular results

**72** Hour Results

**Percent of patients with molecular test results prior to start of front-line treatment[5]**



**4%** with tissue testing



**72%** with **Biodesix Lung Reflex**

## TISSUE-BASED MOLECULAR TESTING

Tissue Available for Molecular Testing — **26 days[5]** — Tissue Test Results

Pulmonologist Clinic Visit → Biopsy → Diagnosis → First Oncology Visit → Front-Line Treatment

SWIFT

Blood Draw **72 hours** → Biodesix Lung Reflex® Test Results

**3 weeks faster[5]**

## BIODESIX LUNG REFLEX® BLOOD-BASED TESTING SOLUTION

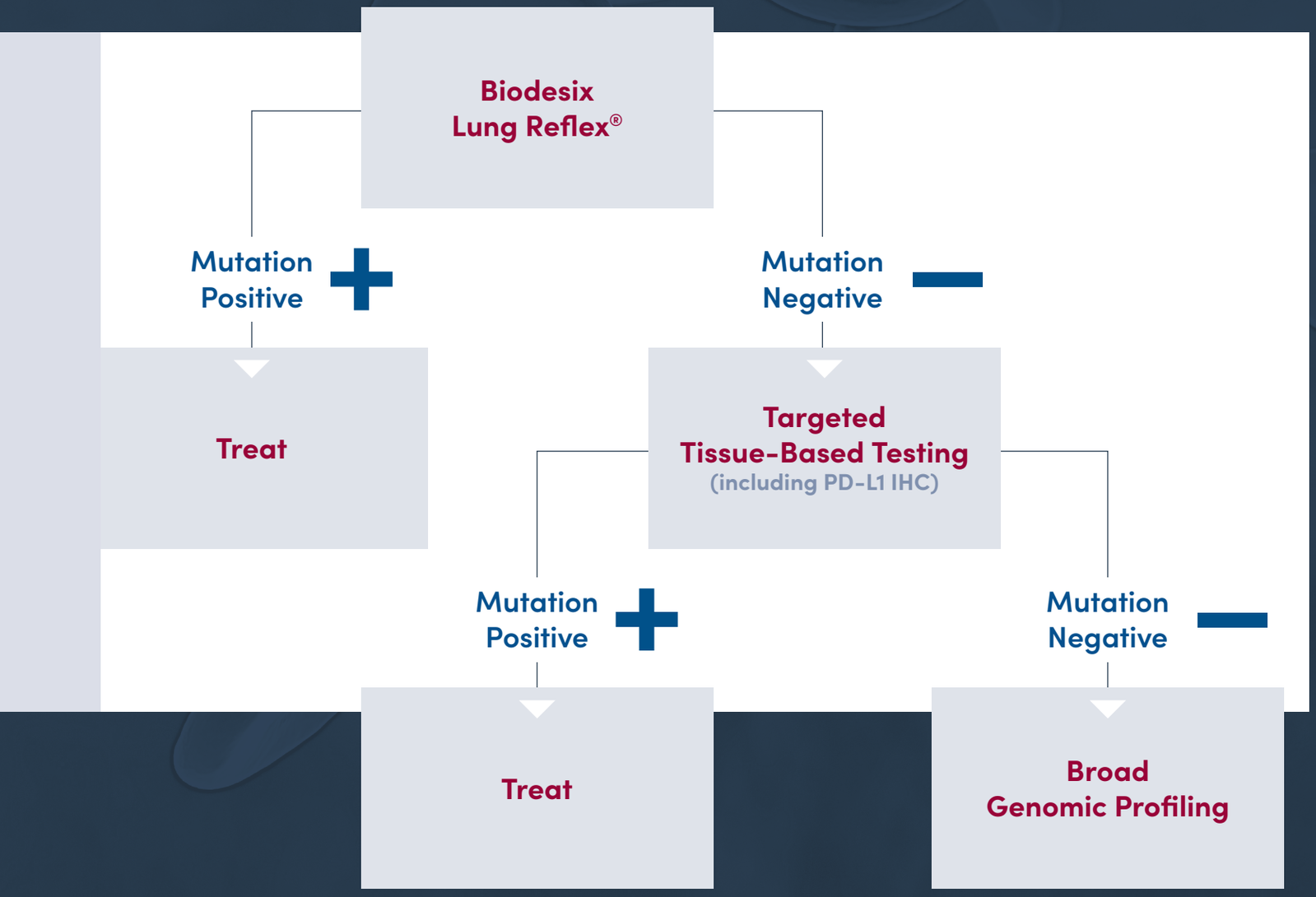
**EXPEDITING TIME TO TREATMENT WITH SWIFT AND ACTIONABLE RESULTS**

# Complementing Tissue Testing

**51%** of NSCLC patients have insufficient tissue for molecular testing[6]

Capture tumor heterogeneity with blood-based testing

**SAVE TISSUE FOR DIAGNOSTIC EVALUATION, PD-L1 TESTING AND BROAD GENOMIC PROFILING[7]**



# Identify Your Patient's Lung Cancer Mutations
## with guideline-recommended mutation results

| Available Mutations | Clinical Sensitivity | Clinical Specificity | Concordance | Treatment Implications[8-19] |
|---|---|---|---|---|
| **EGFR Sensitizing**<br>Exon 19 ΔE746-A750 \| Exon 21 L858R | 96% | 100% | 99% | May benefit from treatment with osimertinib, afatinib, erlotinib, gefitinib, or dacomitinib |
| Exon 18 G719A, G719C, G719S<br>Exon 20 S768I \| Exon 21 L861Q | | | | May benefit from treatment with afatinib |
| **EGFR Resistance**<br>T790M | 87% | 100% | 96% | May benefit from treatment with osimertinib if previously treated with 1st or 2nd generation EGFR-TKIs |
| **ALK Fusions**<br>EML4 | 85% | 100% | 92% | May benefit from treatment with alectinib, brigatinib, ceritinib, crizotinib or lorlatinib |
| **KRAS**<br>G12C \| G12D \| G12V | 88% | 100% | 96% | KRAS mutations are associated with poorer prognosis |
| **ROS1***<br>CD74 \| SDC4 \| SLC34A2 \| EZR \| TPM3 | -- | 100% | -- | May benefit from treatment with crizotinib, ceritinib or lorlatinib |
| **RET***<br>KIF5B \| CCDC6 \| TRIM33 | -- | 100% | -- | May benefit from treatment with cabozantinib or vandetinib |
| **BRAF***<br>V600E | -- | 100% | -- | May benefit from dabrafenib + trametinib, vemurafenib, or dabrafenib |
| **GeneStrat**<br>Combined variants results | 91% | 100% | 97% | See implications listed above for each variant |

* Clinical sensitivity and specificity were not calculated for ROS1, RET, and BRAF due to availability of samples with rare mutations (ROS1, RET) and treatment-naive samples (BRAF).

**THE GENES IN THE GENESTRAT TEST ARE COVERED BY MEDICARE AND MANY PRIVATE PAYERS.**

- Not restricted by stage of NSCLC or recurrence
- Multiple tests per patient per cancer when medically necessary

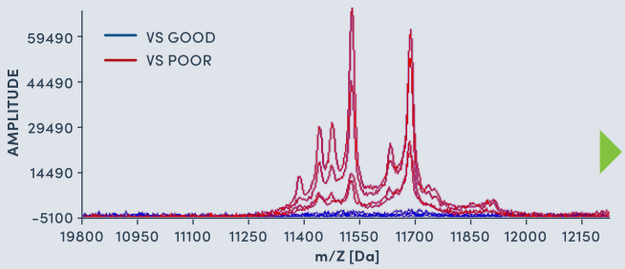
ACTIONABLE

# Measure Your Patient's Immune Response

## to provide a personalized view of their disease state

**VeriStrat® testing measures acute phase proteins and the acute phase response which indicates chronic inflammation and a more aggressive cancer.[20]**

PATIENT BLOOD DRAW FOR BIODESIX LUNG REFLEX




MALDI-TOF MASS SPECTROMETRY MEASURES A PATIENT'S CIRCULATING PROTEOME

ALGORITHM INTERPRETS MULTIVARIATE PROTEOMIC SIGNATURE

PERSONALIZED VERISTRAT TEST RESULT

### VeriStrat is predictive of outcomes, independent of ECOG performance status, mutation status, PD-L1 expression, and treatment choice[21,22,23,24]

#### VERISTRAT GOOD

Results indicate a disease state that is more likely to respond to standard of care treatment.

#### VERISTRAT POOR

Results indicate a chronic inflammatory disease state. These patients may benefit from an alternative treatment strategy,[21,25] including:

- Clinical trials and novel combination therapies
- Broad genomic profiling for rare mutations
- Faster time to treatment, if active therapy is being considered
- Palliative care

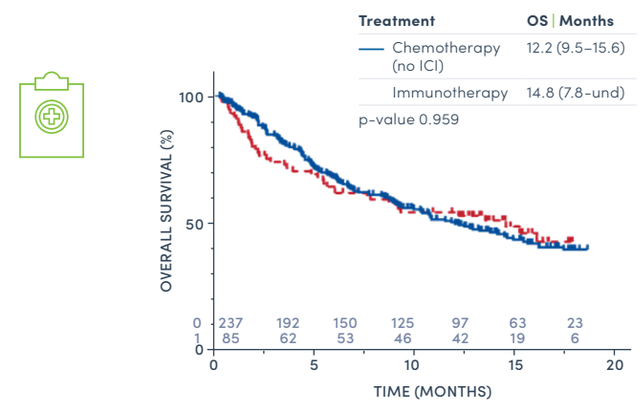
# Predictive of Outcomes
## independent of PD-L1 expression

**Interim analysis from the INSIGHT observational study[24]**

## WITHOUT
### VERISTRAT TESTING

**Real-world data** demonstrate advanced NSCLC patients treated with front-line immunotherapy (ICI) do not have significant overall survival benefit compared with platinum-based chemotherapy that does not include ICI.

### ALL FRONT-LINE IMMUNOTHERAPY VS. CHEMOTHERAPY

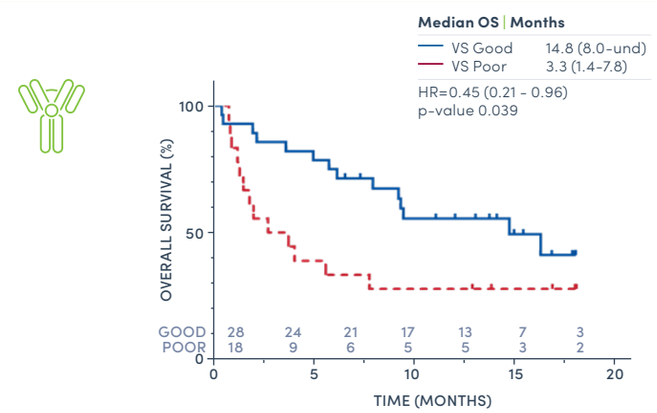



## WITH
### VERISTRAT TESTING

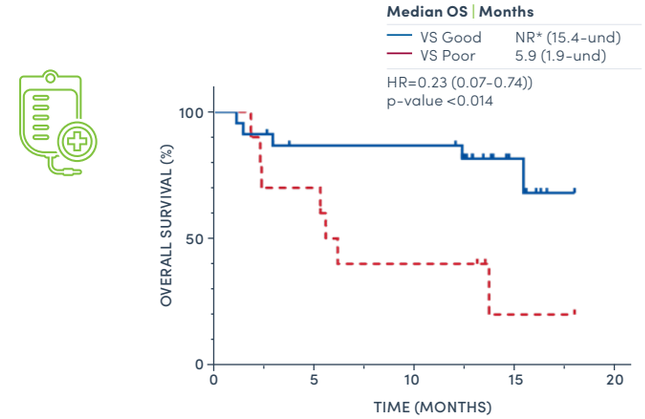
VeriStrat results are predictive of overall survival for patients treated with immunotherapy, even when adjusted for PD-L1 expression (p<0.0001).

**Incorporating VeriStrat as part of your initial patient assessment provides clinically meaningful information when choosing a front-line treatment for patients with NSCLC**

### FRONT-LINE IMMUNO-MONOTHERAPY



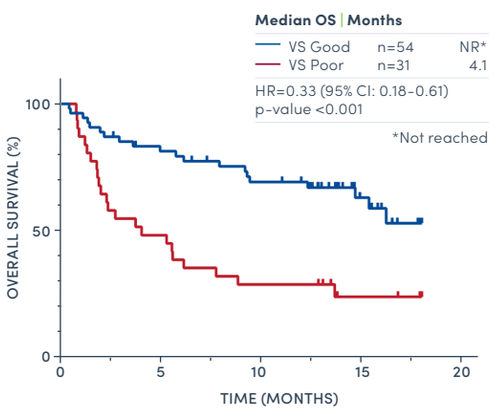

### FRONT-LINE IMMUNOTHERAPY + CHEMOTHERAPY



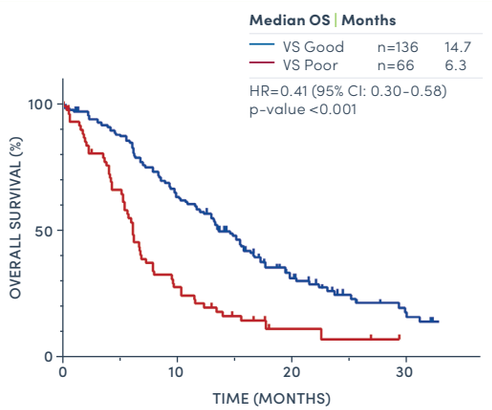
# Predictive of Outcomes
## independent of treatment choice

**Data demonstrate Veristrat Good patients survive 2–3 times longer than Verisrat Poor patients, independent of treatment choice**

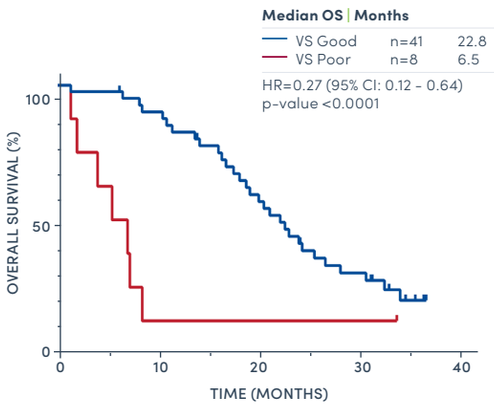
### IMMUNOTHERAPY[24]



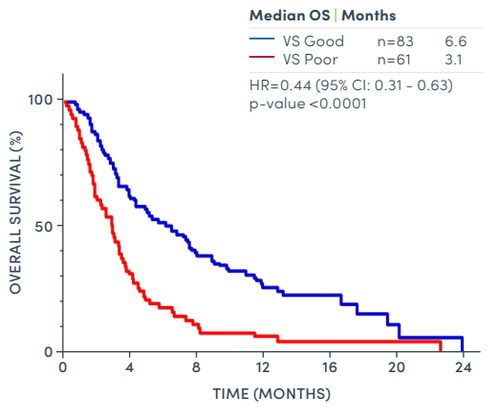

### CHEMOTHERAPY[26]




### TARGETED THERAPY[21]




### PLACEBO[27]

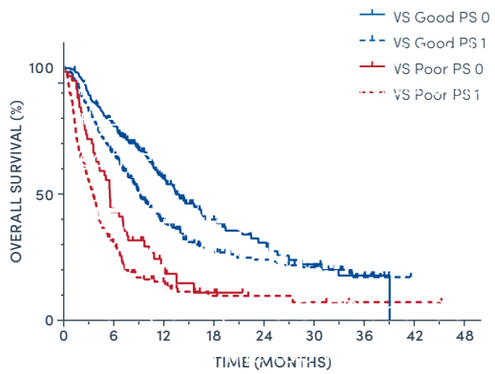



VERISTRAT IS A ROBUST,
BLOOD-BASED TEST VALIDATED ACROSS
**70+ STUDIES WITH OVER 6,600 PATIENTS**

PERSONALIZED

# Predictive of Outcomes
## independent of ECOG performance status

### VeriStrat testing, provides more complete information about a patient's performance status



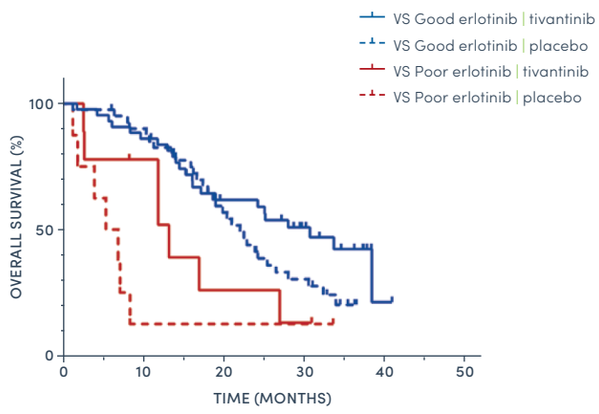

994 patients with an ECOG PS of 0 or 1 treated with erlotinib +/- tivantinib. Includes patients with and without EGFR mutations.[21]

**Patients with a VeriStrat Good result and ECOG PS 1 have significantly better survival outcomes than patients with a VeriStrat Poor result and ECOG PS 0.**

# Identifying Treatment Strategies
## for the VeriStrat Poor disease state

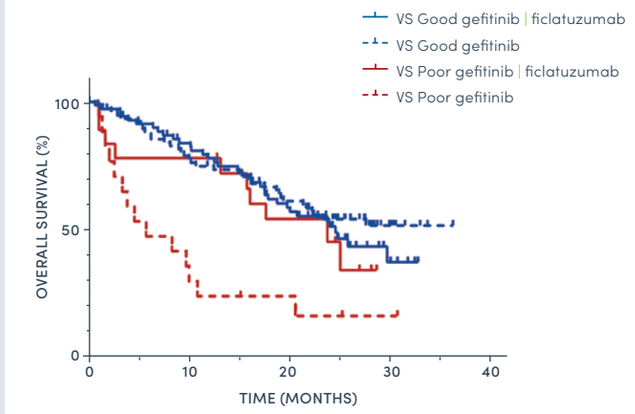
### Patients may benefit from novel therapeutic combinations in clinical trials

**MARQUEE - EGFR mut Cohort[21]: erlotinib +/- tivantinib**




Patients who were VS Poor benefitted from the addition of the clinical trial agent (erlotinib +/- tivantinib). Patients who were VS Good (n=101) performed similarly in both study arms.

**AVEO P06162 Study[25]: gefitinib +/- ficlatuzumab**




Patients who were VS Poor significantly benefited from the addition of a clinical trial agent (gefitinib+/- ficlatuzumab). VS Goods did not derive additional benefit from ficlatuzumab (n=182).

# We Are Here To Help

## BIODESIX ASSIST™ FINANCIAL SUPPORT PROGRAM FOR PATIENTS

- We are committed to making **Biodesix Lung Reflex** available to all patients
- The Biodesix Assist Financial Support Program is available to all patients who qualify to reduce or eliminate potential patient financial responsibility
- Patients may apply to pre-qualify for financial assistance at any time, including before the test is performed

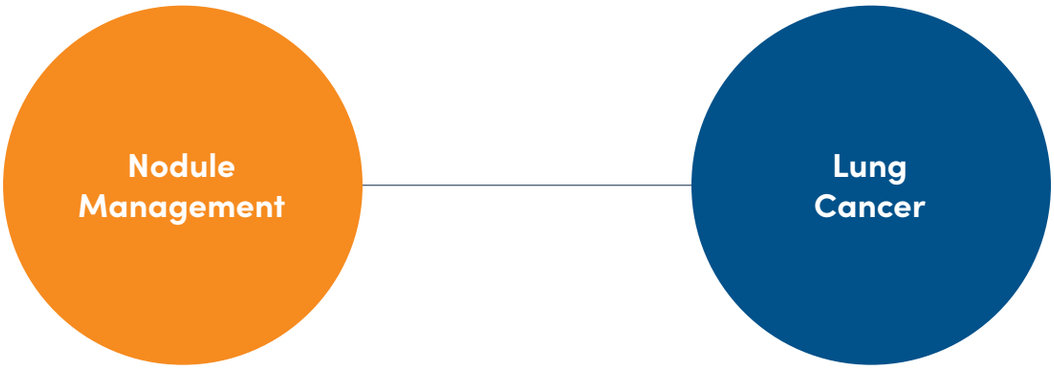
## CONTACT US

**Please contact Biodesix Customer Care to order test kits and receive access to the online Biodesix Physician Portal.**

**Call: 1.866.432.5930**

**Visit: biodesix.com/order-test-kit/**

# We are committed to solving complex diagnostic challenges in lung cancer




nodify xl2™ PROTEOMIC TEST

Designed to help identify likely benign lung nodules with a simple blood-based test.

biodesix lung® REFLEX

Uncover both sides of lung cancer with integrated blood-based genomic and proteomic results in 72 hours.

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