

OVERVIEW

The Percepta Genomic Sequencing Classifier® (GSC) is a novel genomic test that helps physicians accurately determine an individual patient's lung cancer risk. It is the first genomic test that can both "down-classify" lung-nodule patients to "low risk" for lung cancer so that they may avoid unnecessary invasive procedures and "up-classify" patients to "high risk" to help guide next intervention steps.¹ Veracyte developed the Percepta GSC on its proprietary RNA whole-transcriptome sequencing and machine-learning platform.

THE DIAGNOSTIC CHALLENGE

Lung cancer is the leading cause of cancer-related deaths in the United States, killing approximately 143,000 Americans each year – more than the next three leading cancers combined.² Early detection and diagnosis can significantly improve survival, but only about 16 percent of lung cancer cases currently are diagnosed at an early stage, when the disease is most treatable.³

Lung nodules or lesions found on CT scans are often the first sign that a patient may have lung cancer. Most lung nodules are benign, but determining which are cancerous is often difficult and can lead to patients undergoing invasive, risky and expensive procedures that are frequently unnecessary, or to delays in treatment.

Up to
2 million

lung nodules are detected by CT scans in the U.S. each year.⁴



Approximately
545,000

bronchoscopies are performed each year to evaluate lung nodules for cancer.^{1, 5}



Up to
60%

of bronchoscopy results are inconclusive for lung cancer, which can lead to unnecessary invasive procedures or delayed treatment.⁶⁻¹⁰

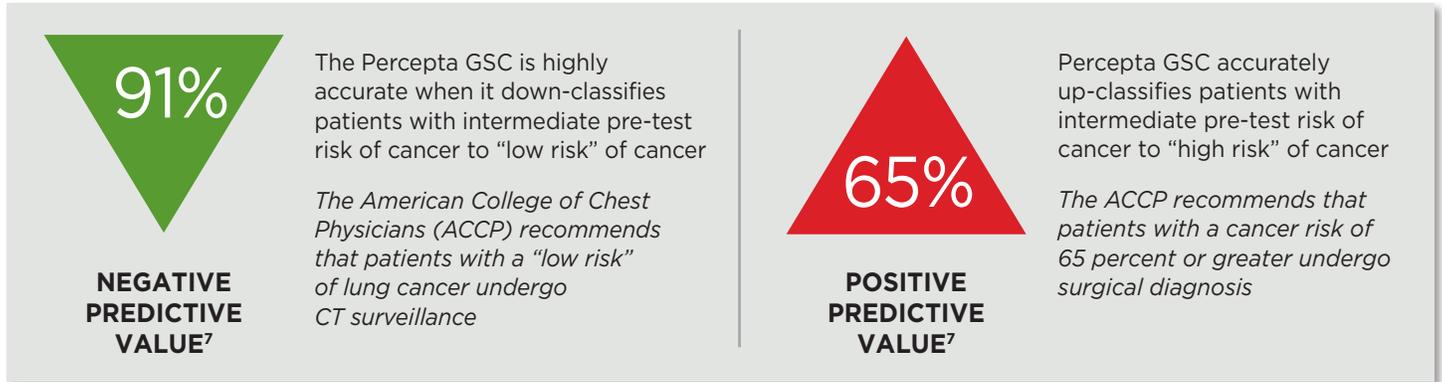


THE PERCEPTA GENOMIC SEQUENCING CLASSIFIER A BETTER DIAGNOSTIC APPROACH

The Percepta GSC stratifies individual patients' risk of lung cancer to guide next steps. The test is used for patients who are being evaluated for suspicious lung nodules and have inconclusive results from bronchoscopy – a common nonsurgical procedure used to assess lung nodules for cancer – and who had an "intermediate" pre-test risk of cancer based on clinical and imaging findings. Up to 80 percent of lung nodules are identified as "intermediate" risk prior to testing.¹⁰

The Percepta GSC builds on Veracyte's original Percepta Bronchial Genomic Classifier, which has been commercially available since 2015. Clinical validation findings published in *The New England Journal of Medicine* demonstrated the original Percepta classifier's ability to identify patients at low or very low risk of lung cancer when their bronchoscopy results were inconclusive.⁶ A recent prospective clinical trial showed

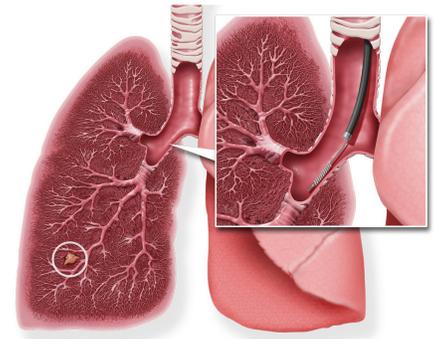
that, among patients with an intermediate pre-test risk of lung cancer, the next-generation Percepta GSC accurately stratifies patients as low or high risk for cancer.⁷



Veracyte designed the Percepta classifier to fit seamlessly into the diagnostic work-up of patients with potentially cancerous lung nodules. The patient sample is collected at the start of a bronchoscopy procedure and, if the bronchoscopy result is inconclusive, the physician can order the Percepta test online or via a digital app. The test is performed in Veracyte’s CLIA-certified laboratory in South San Francisco, Calif., and results are provided to the ordering physician within two weeks.

POWERED BY NOVEL “FIELD OF INJURY” SCIENCE

In current or former smokers with lung cancer, gene expression alterations in the bronchial airway comprise a “field of injury,” which serves as a biomarker that detects smoking-related damage to assess lung cancer risk. The Percepta GSC detects genomic changes in cells obtained from the main lung airway during a bronchoscopy to classify patients as having a lower or higher risk of lung cancer. In other words, the Percepta test helps physicians determine the likelihood that a lung nodule, which may be hard to reach, is cancerous without the need to sample the nodule directly.



THE NEXT FRONTIER: EARLIER LUNG CANCER DETECTION THROUGH A NASAL SWAB TEST

The key to reducing lung cancer deaths is to find cancer early, when the disease is more treatable. In February 2017, the *Journal of the National Cancer Institute* published work from Boston University showing that the “field of injury” molecular changes that enable Percepta to detect lung cancer in the main airway can also be detected in the nasal passages.¹¹ This breakthrough finding suggests that a genomic test using cells collected with a simple nasal swab may enable earlier prediction of lung cancer risk. Veracyte believes that this concept can potentially transform the fight against lung cancer by identifying people who are at heightened risk for the disease and could benefit from screening or other interventions. The company is currently collaborating with Johnson & Johnson Innovation to develop such a test.

Cautionary Note Regarding Forward-Looking Statements

This document contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. 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, our beliefs with respect to the benefits of Percepta, including its ability to reduce unnecessary diagnostic surgeries in certain circumstances, improving patient care and reducing healthcare costs, and the applicability of clinical results to actual outcomes. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, anticipated events and trends, the economy and other future conditions. Forward-looking statements involve risks and uncertainties, which could cause actual results to differ materially, and reported results should not be considered as an indication of future performance. These risks and uncertainties include, but are not limited to: demand for our tests, the applicability of clinical results to actual outcomes; laws and regulations applicable to our business, including potential regulation by the Food and Drug Administration or other regulatory bodies; the size of the market opportunity for our products; 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 unnecessary surgeries, improve patient care, and reduce healthcare costs; the occurrence and outcomes of clinical studies; the timing and publication of clinical study results; and other risks set forth in the company’s filings with the Securities and Exchange Commission, including the risks set forth in the company’s Quarterly Report on Form 10-Q for the quarter ended September 30, 2018. These forward-looking statements speak only as of the date hereof and Veracyte specifically disclaims any obligation to update these forward-looking statements.

1: Data on file. 2: U.S. National Institutes of Health. National Cancer Institute. SEER Cancer Statistics Review, 1975-2013. <https://seer.cancer.gov/statistics>. 3: American Cancer Society. Cancer Facts & Figures 2019. Atlanta, GA: American Cancer Society; 2019. 4: Gould MK, Tang T, In-Lu AL, et al. Recent Trends in the Identification of Incidental Pulmonary Nodules. *AJRCCM*. 2015 Nov 15; 192(10):1208-1214. 5: Medicare Utilization and Physician Payment Public Use File (2016). 6: Silvestri GA et al. A bronchial genomic classifier for the diagnostic evaluation of lung cancer. *N Engl J Med* 2015; 373:243-251. 7: Gould MK, Donington J, Lynch WR, et al. Evaluation of Individuals With Pulmonary Nodules: When Is It Lung Cancer?: Diagnosis and Management of Lung Cancer, 3rd ed: American College of Chest Physicians Evidence-Based Clinical Practice Guidelines; CHEST. 2013;143(5 Suppl):e93S-e120S. 8: Memoli JSW, Nietert PJ, Silvestri GA. Meta-analysis of guided bronchoscopy for the evaluation of the pulmonary nodule. *CHEST* 2012;142(2):385-393. 9: Ost DE, Ernst A, Lei X, et al. Diagnostic Yield and Complications of Bronchoscopy for Peripheral Lung Lesions: Results of the AQUIRE Registry. *AJRCCM*. 2016 Jan 1;193(1):68-77. 10: Tanner N, Aggarwal J, Gould MK, et al. Management of Pulmonary Nodules by Community Pulmonologists: A Multicenter Observational Study. *CHEST*. 2015 Dec; 148(6):1405-1414. Published online 2015 Jun 18. 11: Perez-Rogers JF, Gerrein J, Anderlind C, et al. Shared Gene Expression Alterations in Nasal and Bronchial Epithelium for Lung Cancer Detection. *JNCI: J Natl Cancer Inst* (2017) 109(7): djw327.