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Veracyte Announces New Data Showing Potential of Afirma Genomic Test to Guide Targeted Treatment for Medullary Thyroid Cancer Concurrent with Diagnosis

New Findings Presented at 2019 ASCO Annual Meeting

SOUTH SAN FRANCISCO, Calif.--(BUSINESS WIRE)--Jun. 1, 2019-- Veracyte, Inc. (Nasdaq: VCYT) today announced new data demonstrating the potential for its Afirma® Xpression Atlas (XA) genomic test to guide targeted treatment selection for patients with a rare but aggressive form of thyroid cancer concurrent with diagnosis by the company's Afirma Genomic Sequencing Classifier (GSC).

The findings advance physicians' ability to answer multiple clinical questions for their thyroid patients using a single, minimally invasive sample. They were presented today at the American Society of Clinical Oncology (ASCO) Annual Meeting, which is being held May 31-June 4, 2019 in Chicago.

Researchers used the Afirma XA to conduct RNA sequencing on 90 thyroid fine needle aspiration samples that had been diagnosed with medullary thyroid cancer (MTC) through the Afirma GSC. The cohort was derived from nearly 30,000 sequential samples that were indeterminate or suspicious for cancer following traditional cytopathology testing. The researchers found that the Afirma XA identified a gene variant or fusion in 74 percent of the MTC cases and that 99 percent of these cases had one or more variants or fusions – *RET, KRAS, HRAS* and/or *BRAF* alterations – that are targeted by new therapies that are currently in clinical trials or early stage development.

"With the emergence of new molecularly targeted therapies for medullary thyroid cancer, molecular testing to identify the driver genomic mutations will be key to optimizing patient outcomes," said Lori J. Wirth, M.D., medical director of the Center for Head and Neck Cancers at Massachusetts General Hospital, who presented the findings in a poster session today. "The potential to select targeted therapy at the time of diagnosis may be especially helpful for patients with advanced disease."

The Afirma GSC and Xpression Atlas provide physicians with a comprehensive solution for a complex landscape in thyroid nodule diagnosis and individualization of care. Veracyte developed the Afirma GSC with RNA whole-transcriptome sequencing and machine learning. The test helps identify patients with benign thyroid nodules among those with indeterminate cytopathology results in order to help patients avoid unnecessary diagnostic thyroid surgery, while also identifying patients with MTC. The Afirma XA provides physicians with genomic alteration content from the same fine needle aspiration samples that are used in Afirma GSC testing and may help physicians decide with greater confidence on the surgical or therapeutic pathway for their patients. The Afirma XA includes 761 DNA variants and 130 RNA fusion partners in over 500 genes that are associated with thyroid cancer.

"These new data show that our comprehensive Afirma solution can not only help patients avoid unnecessary diagnostic surgery when their nodules are benign, but may also inform targeted therapy selection when thyroid cancer is diagnosed," said Bonnie Anderson, Veracyte's chairman and chief executive officer. "These findings represent a significant step forward in delivering on the promise of precision medicine for thyroid cancer patients."

About Thyroid Cancer

The American Cancer Society estimates that 54,070 people in the United States will be diagnosed with thyroid cancer this year. Medullary thyroid cancer, which is more difficult to find and treat, makes up approximately 4 percent of all thyroid cancers. Each year in the United States approximately 525,000 patients undergo FNA biopsies to evaluate thyroid nodules for cancer. Up to 30 percent of these patients receive indeterminate results – meaning they are not clearly benign or malignant – and, historically, most were directed to diagnostic surgery even though 70 percent to 80 percent of the time the nodules ultimately proved to be benign.

About Veracyte

Veracyte (Nasdaq: VCYT) is a leading genomic diagnostics company that improves patient care by providing trustworthy and actionable answers to challenging clinical questions. The company's products uniquely combine advanced genomic technology, clinical science and machine learning to provide answers that give physicians and patients a clear path forward, informing both diagnosis and treatment decisions without the need for costly, risky surgeries that are often unnecessary. Since its founding in 2008, Veracyte has commercialized five genomic tests, which are transforming the diagnosis of thyroid cancer, lung cancer and idiopathic pulmonary fibrosis. Veracyte is based in South San Francisco, California. For more information, please visit www.veracyte.com and follow the company on Twitter (@veracyte).

Cautionary Note Regarding Forward-Looking Statements

This press release 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, the ability of Veracyte's Afirma Xpression Atlas to help characterize medullary thyroid cancer, the ability of Veracyte's Afirma GSC to identify Hürthle cells, the expected impacts of Veracyte's collaboration with Johnson & Johnson in developing interventions for lung cancer, on Veracyte's financial and operating results, on the timing of the commercialization of the Percepta classifier, and on the size of Veracyte's addressable market. 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: 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 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, 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 or reasons why actual results might differ, whether as a result of new information, future events or otherwise, except as required by law.

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