

Life Sciences Technology

Veracyte, Inc. **(VCYT) - BUY**

Price: **\$16.77**
Fair Value Estimate: \$25.00
52-Week Range: \$10.88-\$19.00
Market Cap (MM): \$356
Shr.O/S-Diluted (mm): 21.2
Average Daily Volume: 55,528
Book Value: \$2.38

FYE: Dec	2014E	2015E	2016E
EPS:	\$(1.22)E	\$(0.85)E	\$(0.10)E
Prior EPS:	NC	NC	NC
P/E:	NA	NA	NA

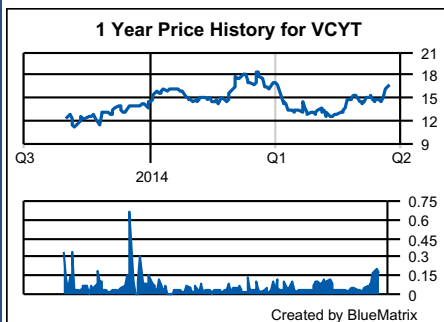
Quarterly EPS:

	2014E	2015E	2016E
Q1	\$(0.32)A	NA	NA
Q2	\$(0.30)E	NA	NA
Q3	\$(0.32)E	NA	NA
Q4	\$(0.28)E	NA	NA

FYE: Dec	2014E	2015E	2016E
Revenue (M):	\$40.8E	\$80.0E	\$120.0E

Quarterly Revenue (M):

	2014E	2015E	2016E
Q1	\$7.5A	NA	NA
Q2	\$9.5E	NA	NA
Q3	\$10.1E	NA	NA
Q4	\$13.7E	NA	NA



Equity Research
Basic Report

Initiating with a Buy: Changing Thyroid Cancer Treatment

INVESTMENT CONCLUSION:

Veracyte is changing the paradigm of Thyroid cancer diagnosis and treatment. Approximately 525,000 people are tested for Thyroid cancer annually and the company estimates that 15-30% of those tests are indeterminate. Veracyte's test, approved by the FDA and reimbursed by a significant number of insurers, uses genetic evidence to determine if patients will require surgery. In some instances, the use of the Veracyte has resulted in 90% fewer surgeries. Three years after FDA approval, Veracyte is focused on driving endocrinologist adoption and expanding into international markets. We initiate with a BUY rating and our fair value estimate is \$25.

KEY POINTS:

Transformative DNA based technology

Veracyte's Afirma test is a DNA based diagnostic that tests a 142-gene signature to preoperatively determine thyroid nodule classification (benign or malignant). Traditionally, thyroid nodules were histopathologically assessed - stained and microscopically examined - and endocrinologists would suggest surgery for most indeterminate results. Often, the sample is determined as benign (65-75%) or indeterminate (15-30%). The Afirma test targets a market of about \$500 million and no alternative test exists.

FDA Approved and significant insurance reimbursement

The Afirma test was approved by the FDA in January 2011 and today 125 million lives are covered under current insurance plans. The company estimates that about 50% of the US population falls under reimbursement. With a \$4,875 list price and \$3,200 Medicare reimbursement, the Afirma test can eliminate the need for a \$15,000 thyroidectomy and additional expenses associated with long-term hormone therapies. It is estimated that Afirma test could eliminate tens of thousands surgeries per year as 74% fewer surgeries would be performed in patients with benign thyroid nodules.

Business on commercial ramp with 80% revenue growth

Veracyte has moved into commercial sales of the test and now has 14 direct salesmen in addition to a co-marking agreement with Genzyme. We estimate that revenue will grow in 2014 and 2015 by 86% and 96%, respectively. The risks to the Veracyte business model are the emergence of alternative malignancy exclusion genetic tests for indeterminate results. We view these risks as years away at best. The market size of \$500 million assumes that full US adoption occurs. While full adoption of a diagnostics test is uncertain the Veracyte is moving into Lung Cancer diagnostics with product introduction in late 2016 or early 2017.

Much Precedence for Premium Valuation and Liquidity Event

As a market leader in DNA based diagnostic technology with doctor friendly reporting technology, the company is emulating the business model of other successful molecular diagnostic firms. Good valuation proxies for Veracyte are Clariant and Genoptix. Each were acquired several years after their commercial launch by General Electric and Novartis, respectively. Using past takeover models and a peer group average of 5x FY16, our fair value estimate for Veracyte is \$25 per share.

Research Analyst Certifications and Important Disclosures are on pages 12 - 14 of this report



**\$500 million market
opportunity**

**Uses an Affymetrix gene
array**

COMPANY OVERVIEW

Veracyte is a molecular diagnostics company on a mission to save lives by removing diagnostic ambiguity; ergo, leading to more efficient and effective patient care. At its core, Veracyte targets diseases that require invasive procedures for an accurate diagnosis; leveraging its expertise in molecular cytology, the company believes that it can improve patient outcomes by eliminating unnecessary, costly procedures. The company believes that molecular cytology has the potential to be disruptive in a broad range of areas including thyroid, pulmonology, dermatology, and reproductive endocrinology. Veracyte estimates that thyroid and these three expansion areas could represent a \$4 billion opportunity. The company's strategy is to focus on diseases in which its diagnostic solution can serve as an alternative to an invasive procedure, and when informed by genomic information, the company can change the standard of care in a way that improves patient outcomes and reduces treatment costs over the near- and long-term.

Veracyte launched its first commercial molecular test, the Afirma Thyroid FNA Analysis, in 2011 to determine if thyroid nodules previously classified as indeterminate can be reclassified as benign. The centerpiece of the Afirma FNA test is Veracyte's Gene Expression Classifier (GEC), which utilizes a proprietary 142-gene panel to confirm or reclassify a preoperative diagnosis. Veracyte published a study in 2012 in *The New England Journal of Medicine* that established the clinical validity of the GEC and subsequently demonstrated the clinical utility and cost effectiveness in later publications.

The Afirma test was commercially released in January 2011; since then, the company has processed over 90,000 fine-needle aspiration (FNA) samples for evaluation and performed over 19,000 GECs to reclassify indeterminate cytopathologic results. Veracyte has obtained positive reimbursement coverage from Aetna, Cigna, Humana, Medicare, Premera (Blue Cross), and UnitedHealthcare. The company added Cigna in 4Q13 and its first Blue Cross payer, Premera, in 1Q14. Veracyte expects further coverage announcements as the American Thyroid Association (ATA) and American Association of Clinical Endocrinology (AACE) publish their updated guidelines.

Veracyte operates under an agreement with a third party testing lab for the evaluation of all FNAs. The company also announced a co-promotion agreement with Genzyme Corp, a subsidiary of Sanofi, in January 2011. Under the agreement, Genzyme will market and promote Veracyte's Afirma Thyroid FNA Analysis test worldwide. Veracyte revenue has increased from \$2.6 million in 2011 to over \$21.9 million in 2013. The company anticipates receiving 80,000 FNA samples in 2014, effectively doubling the total volume received during the first three years since commercial release.

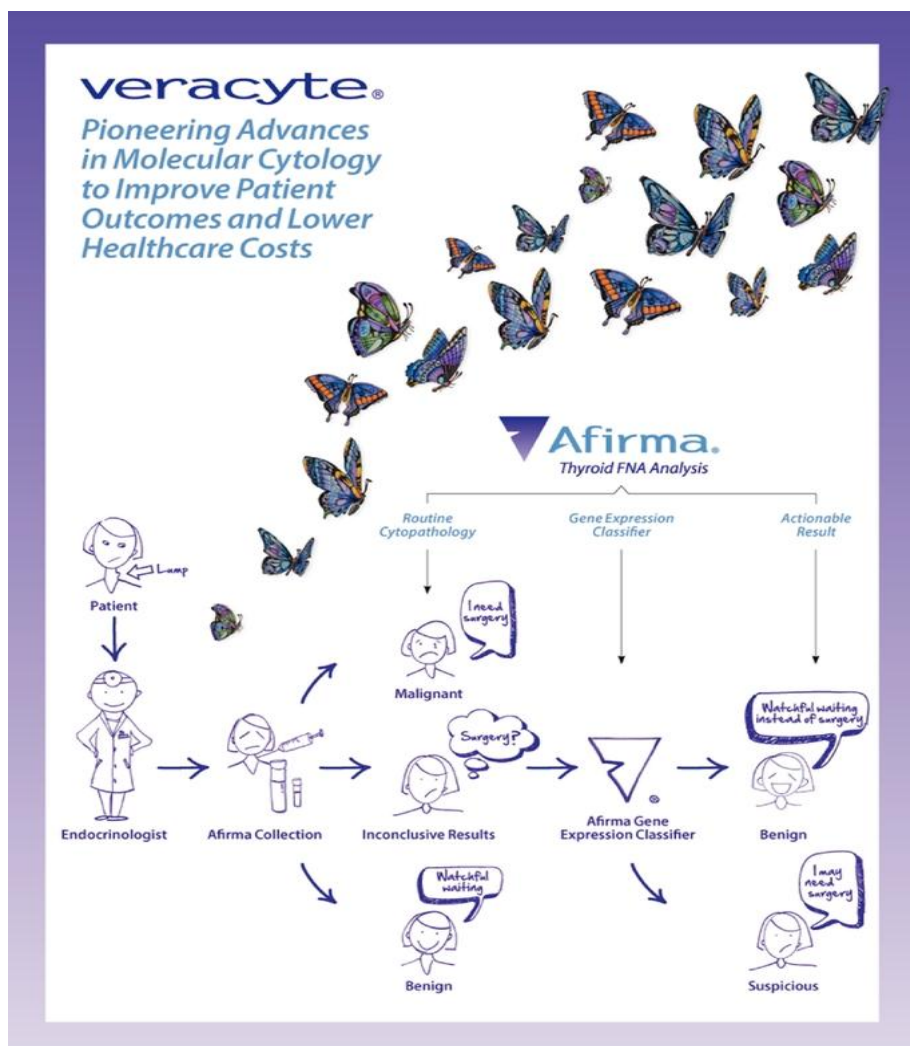
Historically, pathologists diagnosed complex diseases through performing a biopsy and evaluating surgical tissue samples. More recently, molecular diagnostics have complemented surgical pathology to guide treatment decisions. While molecular diagnostics resulted in more accurate and timely diagnoses, both approaches require relatively large quantities of tissue sample. Collecting adequate samples can often be difficult because of size of material available and location of certain growths. Using small samples like FNAs collected in an outpatient setting, Veracyte has found a solution for testing of thyroid nodules using cytopathology, which is often the first step in the diagnostic process because it offers a minimally invasive and cost-effective alternative to surgery. The downside to cytology is that samples are non-uniform, which can create high rates of ambiguity. Veracyte's GEC helps eliminate the indeterminate diagnoses and saves many patients from undergoing a more invasive and unnecessary surgery.

Typically, when a patient is suspected of having nodules larger than a centimeter he or she referred to endocrinologist for evaluation. Endocrinologists generally perform the FNA to collect cells from the nodule for cytopathology and send these samples to a cytopathologist for analysis. Veracyte estimates that 80% of its FNA volume is from repeat physician clients and it has yet to penetrate 75% of the 3,500 Endocrinologists in the US.

According to the American Cancer Society, thyroid cancer is the fastest growing cancer in the US; incidence more than tripled from 2001-2013 (+209%). Data from the Surveillance, Epidemiology, and End Results Program (SEER) found that the annual percentage change in the incidence of thyroid cancer continues to accelerate, from 3% during 1992-1998 to 6.5% during 1998-2009. In 2011, there were approximately 525,000 thyroid FNAs performed in the US. After cytopathological examination, 14-48% of nodules have indeterminate cytological findings according to an abstract from the National Cancer Institute Thyroid Fine-

Helps avoid a \$15,000 surgery

Needle Aspirations State of Science Conference. The American Thyroid Association guidelines indicate that 15-30% of FNA samples yield indeterminate results. Within that patient populous, malignancy risk ranges from 10% to 26%. Clinical practice guidelines have historically recommended patients undergo surgery to remove all or part of their thyroid post-an indeterminate cytopathology. Drawing from a cost-effectiveness study published during 2011 in the *Journal of Endocrinology and Metabolism* that assumed 74% fewer surgeries and a molecular test cost of \$3,200, the overall direct cost savings from using the GEC was estimated to be approximately \$122 million per year. The bulk of the reduction coming from lesser thyroidectomies and costs associated with permanent post-surgery complications (i.e. lifetime hormone replacement therapy).



Source: Company

Afirma Technology

The Afirma test is a novel molecular test that helps remove the diagnostic ambiguity that plagues thyroid FNA analysis. Veracyte's technology utilizes its proprietary Gene Expression Classifier to measure the mRNA transcript expression levels of 142 genes. The company then imputes the genomic signature into an algorithm to identify whether the expression patterns conform to characteristics of benign nodules. Veracyte developed the Afirma test because it recognized a significant unmet need in thyroid nodule diagnosis. Thyroid nodules, bumps under the skin of the neck around the thyroid gland, are often benign, but patients with thyroid nodules larger than one centimeter are traditionally referred to an endocrinologist for evaluation.

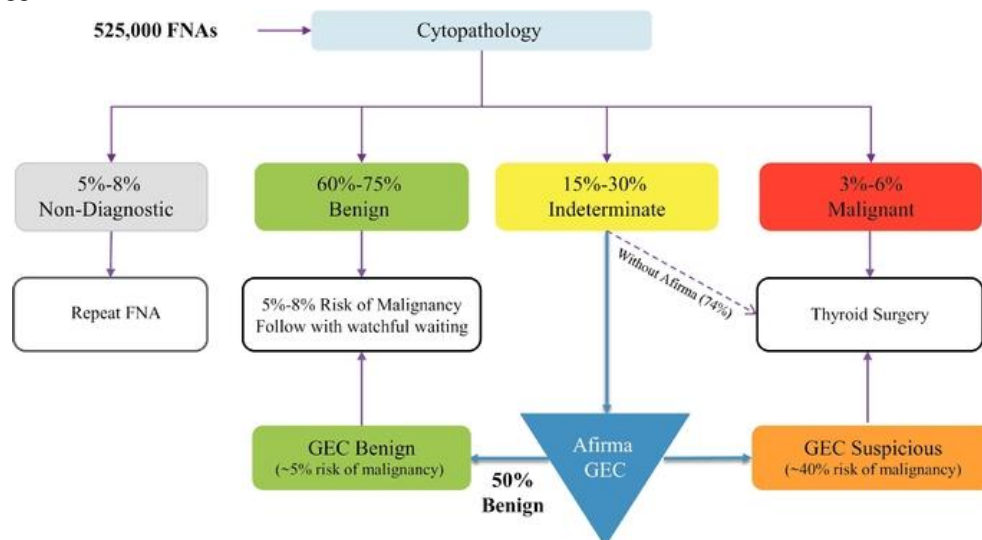
Veracyte published a study in 2012 in *The New England Journal of Medicine* that established the clinical validity of the GEC. The study was conducted because approximately 15-30% of thyroid nodules evaluated by fine-needle aspirations, a minimally invasive needle biopsy, are not clearly benign or malignant. These patients with indeterminate nodules are more often than not referred for diagnostic surgery, though most of the time the nodules later proved to be benign. The NEJM study included 3789 patients over 19-months. Of the 577

90% of the 52% of patients with benign results avoid surgery

indeterminate aspirates, 265 met the inclusion criteria. The GEC correctly identified 78 of the 85 malignancies as suspicious (92% sensitivity; 95% confidence interval) with negative predictive values for atypia, follicular neoplasm, or suspicious findings of 95%, 94%, and 85%, respectively. The study found that GEC reduced the number of unnecessary diagnostic surgeries and reclassified 52% of those nodules to a benign diagnosis. The study authors concluded that the GEC could be useful to physicians in making important patient care decisions, including active monitoring of the nodule in lieu of diagnostic surgery.

There have been several diagnostic tools investigated over the years to improve the accuracy and effectiveness of preoperative indeterminate thyroid nodules. Different iterations of imaging and ultrasound technologies has been tested over the years - sonography, elastography, and positron emission tomography, yet all had lower negative predictive values (too many false negatives) and resulted in a significant number of unnecessary thyroidectomies. Diagnostic tests to determine levels of thyrocalcitonin and thyroid-stimulating hormone levels proved ineffective in ruling out malignancy; however, changes can be indicative of an abnormality. Recently, there has been several genetic and epigenetic tests surrounding known characteristics of malignancies in biopsy tissue and circulating blood, but malignancy exclusion remains the key barrier for clinical acceptance. The GEC is the only test that meets the criteria of the National Comprehensive Cancer Network (NCCN) for safely monitoring patients with indeterminate cytopathology results.

The ability to accurately classify indeterminate thyroid FNA samples is what differentiates Veracyte from other preoperative methods. The Afirma test's high negative predictive value, upwards of 96%, is what has driven clinical acceptance. In another clinical utility study published in *Thyroid* in 2012, the researchers found that physicians recommended surgery in only 7.6% of these cases, compared with a historical surgery rate of 74% for patients with indeterminate cytopathology results alone. This represented roughly a 90% reduction in surgeries for the 52% of patients receiving a GEC benign result. The study was conducted with 368 patients from 51 different endocrinologists. Each of these patients had both a cytopathology indeterminate result and a GEC-benign result. To help Thyroid nodule patients avoid further unnecessary surgeries, Veracyte launched the Afirma Malignancy Classifiers in May 2014. The classifiers comprise genomic tests for medullary thyroid cancer (MTC) and BRAF gene mutation. Traditional cytopathology misses more than half of cases of MTC, an aggressive cancer.



Source: Company

Thyroid Cancer Diagnostic Market

Veracyte's Afirma test addresses the large and rapidly growing thyroid nodule diagnostic market where significant ambiguity in cytopathology offers the potential to reduce the rate of surgery. The thyroid market dynamics include:

- **Fast growing cancer market in the US.** According to the American Cancer Society, thyroid cancer is the fastest growing cancer in the United States. This reality has driven a rapid increase in the number of thyroid tests performed over the past several years. There were approximately 525,000 thyroid FNAs performed in 2011 in the United States. Veracyte estimates that the domestic thyroid nodule diagnostic market opportunity today is approximately \$500 million per annum; \$100 million

Lung disease test in development

80% customer retention rate

of cytopathology testing, \$350 million of GECs performed on indeterminate cytopathology samples, and \$40 million for molecular cytology tests for malignant thyroid FNA samples.

- **Global growth opportunities.** Ex-US, Veracyte estimates that there is a \$300 million market opportunity for the GEC. The company has yet to generate any meaningful revenues outside of the US. Veracyte received a CE-mark for the GEC collection kit during 4Q13. Initially, Veracyte plans on leveraging Genzyme's international salesforce and their endocrinologist relationships.
- **Provides cost savings to healthcare suppliers and patients.** Historically, 35% of post-operative patients were later determined to have thyroid cancer; thereby, 65% of patients needlessly underwent surgery. This reality was the result of prior NCCN guidelines that recommended diagnostic surgery for patients with indeterminate FNA samples. Thyroid surgery can have significant implications because complications can make a patient in need of hormone replacement therapy for life. One study found that by using Veracyte's novel test the number of unnecessary surgeries was reduced by 74%, which represented \$122 million in overall direct medical cost savings annually. The bulk of the reduction coming from lesser thyroidectomies and costs associated with permanent post-surgery complications (i.e. lifetime hormone replacement therapy).
- **Concentrated base of customers.** There are 3,500 endocrinologists in the United States that specialize in thyroid disease. Endocrinologists are the key decision makers because they are often responsible for diagnosing patients and referring them to surgery. Veracyte's Afirma GEC test is a new solution that endocrinologists can employ to better classify patients with indeterminate results.

PRODUCT PIPELINE

There are several other complex diseases where cytology samples could play a critical role in clinical decision making. Veracyte is actively investing in late biomarker discovery for interstitial lung disease (ILD), a group of lung diseases that are difficult to preoperatively diagnose. Interstitial lung disease affects lung tissue and the space around the microscopic air sacs. Veracyte hopes to improve the accuracy of diagnosis of idiopathic pulmonary fibrosis, a progressive and often fatal ILD manifested by lung scarring. The company estimates that 200,000 patients are suspicious for ILD and after a high resolution CAT Scan (HRCT) 80,000 patients remain in characterization purgatory. Veracyte has identified the top 200 differentially expressed genes that demonstrate clustering of IPF and Non-IPF.



Source: Company

MARKETING AND SALES

Veracyte reported 92% growth in FNA samples received and 3,162 Afirma GEC tests ordered in 1Q14. The company has historically reported 1 Afirma test for every 5 FNA samples received. The company guided to FY14 FNA samples received of 76,000-83,000. At the midpoint, the number of FNA samples would suggest almost 16,000 GEC tests.

Veracyte is focused on expanding its existing base of prescribing physicians and achieving broader reimbursement coverage. The company plans to grow its sales force in key, high-volume regions of the US and leverage its co-marketing agreement with Genzyme to accelerate adoption of the GEC test domestically and internationally. To address the very concentrated US market, Veracyte has 14 internal sales professionals in addition to those from Genzyme that specialize in endocrinology sales. The sales team is organized into eight regions, each having a Veracyte sales representative complemented by Genzyme sales professionals. Veracyte views community-based endocrinologists as the primary target for Afirma because those centers perform the majority of FNAs in the US. The company

Genzyme has global marketing rights

estimates that it has only penetrated 25% of the approximately 3,500 endocrinologists in the United States; a massive opportunity still remains. On the international front, Veracyte and Genzyme intend to selectively target attractive markets for entry during the first half of 2014. In addition to its community practice customers, Veracyte serves academic and hospital-based customers as well who perform their own cytopathology analysis and send the GEC to the company when the FNA cytopathology results are indeterminate.

THIRD-PARTY RELATIONSHIPS

Genzyme

Veracyte entered into a co-promotion agreement with Genzyme on January 12, 2011. Through the joint-venture, Genzyme was granted rights to market the Afirma GEC test in the United States and in 40 countries worldwide. Veracyte received an upfront \$10 million payment pursuant the agreement. We view this JV as positive for Veracyte as the company can take advantage of Genzyme's existing relationships worldwide. Genzyme is a leader in endocrinology with its synthetic recombinant human TSH-alpha drug, Thyrogen, used to treat thyroid cancer and often prescribed to patients who had their thyroid removed. The prescription drug is sold in over 42 countries worldwide.

TCP

Veracyte outsources its pathology services to Thyroid Cytology Partners (TCP). The company entered into a service agreement with Brazos Valley Pathology in November 2010 and that contract was eventually assigned to TCP in May 2011. TCP provides cytopathology professional diagnoses on thyroid FNA samples. Veracyte and TCP amended their pathology services contract in December 2012, giving TCP the exclusive right to provide the cytopathology diagnoses on FNA samples that are referred Veracyte as part of the Afirma solution at a fixed price per test with volume discounts. Community-based customers send GEC samples overnight to Veracyte's CLIA-certified laboratory where the samples are prepared and stained for review by TCP. When the tests are indeterminate, TCP performs the GEC on the same patient sample used in the FNA procedure. The agreement with TCP is effective through December 2015. Thereafter, the contract automatically renews every year unless either party provides a notice of intent twelve months prior term-end to not renew the agreement.

Reimbursement

Since the Afirma commercial launch in January 2011, Veracyte has been heavily focused on conducting studies and publishing evidence to support the clinical utility and cost-effectiveness of the GEC. The belief is that favorable published evidence generates publicity, which drives adjustments to network and association guidelines. In turn, these updated guidelines lead to positive coverage results. Today, over a 125 million lives are covered for Afirma and hundreds of payers have been reimbursed for GEC tests. The National Comprehensive Cancer Network (NCCN) and UpToDate, an evidence-based clinical decision support resource of physicians, have published guidelines recommending use of Veracyte's GEC for indeterminate FNA samples. Veracyte is still awaiting guidelines from the American Thyroid Association and the American Association of Clinical Endocrinology (AACE); both are currently in the process of updating their guidelines. As a result of the positive publicity surrounding the published evidence and guidelines, the Afirma test has received several positive coverage decisions over the past year - UnitedHealthcare (March 2013), Aetna (June 2013), Humana (July 2013), Cigna (December 2013), and Premera (May 2014).

Veracyte relies on a small number of third-party payers for a significant portion of its revenues. Three payers, Medicare, UnitedHealthcare, and Aetna accounted for almost 60% of the company's revenues in 2013 - Medicare, 32%; UnitedHealthcare, 18%; and Aetna, 9%. With the addition of Humana, Cigna, and Premera, the company's first Blue Cross payer, Veracyte's revenue should continue to become more diversified. In 2011, 65% of the company's revenues came from its top-three payers.

Competition

The primary competition for Veracyte's Afirma test is comes from the traditional methods physicians use to diagnose thyroid cancer. Historically, guidelines have recommended that patients with indeterminate diagnoses from cytopathology results consider surgery for the removal of all or part of the thyroid to rule malignant cancer. This practice has been the

Potential risk from Thermo, Illumina, Roche, Lab Corp, and Quest

Beckman Coulter
experience

Well known venture capital
investor

standard of care in the United States for many years. To change this long standing approach, Veracyte plans to continue to educate physicians about the benefits of its test.

Veracyte faces competition in the traditional cytology market from commercial laboratories such as Lab Corp and Quest Diagnostics. Both have a strong infrastructure and solid network to support the commercialization of additional diagnostic services. Veracyte also faces potential molecular diagnostic competition from companies such as Thermo Fisher and Illumina. Both companies have announced their intentions to enter into the clinical diagnostics market. Companies that develop DNA based diagnostic tests, such as Roche and Qiagen, could also become potential competitors. Others, such as Asuragen, measure mutational markers such as BRAF and KRAS to identify nodules that are malignant instead of benign. While tests like Asuragen's and potentially Response Genetics' could compete with Veracyte to gain mindshare for endocrinologists, neither test crosses into Veracyte's key value add, malignancy exclusion. Veracyte's Afirma test guides clinical decisions for indeterminate FNA samples, something none of its current competitors provide.

BALANCE SHEET & INCOME STATEMENT

Veracyte completed its IPO in November 2013, and today the company has about \$64 million of cash on its balance sheet. We expect Veracyte to burn about \$51 million of cash in 2014 and 2015. After growing revenue by 86% in 2014 and 96% in 2015, we believe that the company will become EBITDA in 2016 and EPS positive in 2017. Veracyte is targeting a 2016 US launch of its Idiopathic Pulmonary Fibrosis (IPF) diagnostic test for lung tissue; however, we include no revenue in our model.

VALUATION

Our valuation approach places a revenue multiple on the company to determine the fair market value. Peer molecular diagnostic companies are trading at 5x revenue; using that multiple, our fair value estimate is \$25 per share on our 2016 forecast. In addition to peer valuations, we also review the valuation and corporate history of peers like Genoptix and Clariant. Both companies were acquired after developing strong physician networks at approximately 5x revenue. Each company had a strong portfolio of molecular diagnostic intellectual property and solid relationships with doctors and specialists. We believe that Veracyte's novel content, value proposition, and brand recognition among endocrinologists, provides the backdrop for a 5x revenue multiple and increases the likelihood of acquisition by a larger peer in the industry.

MANAGEMENT

Bonnie H. Anderson, President and CEO

Bonnie H. Anderson has served as Veracyte's Chief Executive Officer and on the company's board of directors since February 2008. Ms. Anderson was appointed President in August 2013. Prior to the company, from April 2006 to January 2008, Ms. Anderson was strategic consultant, and worked with Veracyte from July 2007 to January 2008. Prior to Ms. Anderson's stint as a consultant, she served as a Vice President at Beckman Coulter from September 2000 to March 2006.

Shelly D. Guyer, Chief Financial Officer and Secretary

Shelly D. Guyer has served as Chief Financial Officer and Secretary since April 2013. Prior, from April 2008 through December 2012, Ms. Guyer served as Chief Financial Officer and Executive Vice President of Finance and Administration of iRhythm Technologies, a medical device company. From March 2006 to August 2007, Ms. Guyer was a Vice President of Business Development and Investor Relations of Nuvelo, a biopharmaceutical company. Prior to joining Nuvelo, Ms. Guyer worked at J.P. Morgan Securities for over 17 years, serving in a variety of roles including in healthcare investment banking.

Christopher M. Hall, Chief Commercial Officer

Christopher M. Hall has served as Chief Commercial Officer since March 2010. Previously, Mr. Hall was the Chief Business Officer of Celera Corporation, a diagnostics company, from October 2008 to February 2010.

Brian G. Atwood, Chairman

Brian G. Atwood has been the Chairman of Veracyte's board of directors since February 2008 and as a director since December 2006. Mr. Atwood has also served as a Managing

Director of Versant Ventures, a healthcare-focused VC firm, since 1999. Prior to founding Versant Ventures, Mr. Atwood was as a general partner of Brentwood Associates.

Brook H. Byers, member of the Board of Directors

Brook H. Byers has served as a member of Veracyte's board of directors since January 2007. Mr. Byers has a venture capital background. He has served as a Managing Partner of Kleiner Perkins Caufield & Byers, which he joined in 1977. Mr. Byers currently serves as a director at several public and private companies, including Foundation Medicine and Pacific Biosciences, and served as a director of Genomic Health from January 2001 to June 2011.

Fred E. Cohen, member of the Board of Directors

Fred E. Cohen, M.D., D.Phil., has served as a member Veracyte's board of directors since January 2007. Dr. Cohen is a partner at TPG and serves as co-head of TPG's biotechnology group. Dr. Cohen joined TPG in 2001. Dr. Cohen is also an Adjunct Professor of Cellular and Molecular Pharmacology at the University of California, San Francisco, where he has taught since 1988.

Samuel D. Colella, member of the Board of Directors

Samuel D. Colella has served as a member Veracyte's board of directors since December 2006. Mr. Colella has served as a Managing Director of Versant Ventures since he help co-found the company in 1999. Mr. Colella is also a general partner of Institutional Venture Partners. Mr. Colella currently on the board of several publicly and privately held companies, including Fluidigm, where he is the Chairman of the Board, and Genomic Health.

Karin Eastham, member of the Board of Directors

Karin Eastham has served as a member Veracyte's board of directors since December 2012. Ms. Eastham also serves on the boards of several life sciences companies. Previously, Ms. Eastham served as Executive Vice President and Chief Operating Officer of the Burnham Institute for Medical Research and was of the Institute's Board of Trustees. Prior to her time at the Bumham Institute, Ms. Eastham served as Senior Vice President, Chief Financial Officer and Secretary of Diversa Corporation.

Veracyte, Inc
Annual Income Statement

Paul Knight
Janney Montgomery Scott
212-888-2696

(\$ in millions, except per share data)

FY-ending Dec 31,	2012	2013	2014E					2015E	2016E
	2012	2013	1Q14	2Q14E	3Q14E	4Q14E	2014E	2015E	2016E
Revenues									
Total Revenues	\$ 11.6	\$ 21.9	\$ 7.5	\$ 9.5	\$ 10.1	\$ 13.7	\$ 40.8	\$ 80.0	\$ 120.0
Consensus Estimate 06-25-14		\$ 21.9	\$ 7.5	\$ 9.3	\$ 10.1	\$ 13.7	\$ 40.6	\$ 76.6	\$ 116.4
Growth Reported	339.6%	88.2%	70.5%	87.5%	80.6%	100.4%	86.3%	96.2%	50.0%
Organic Growth									
FNA Samples Received	25,890	49,670	14,373	21,143	21,109	23,900	80,525	120,788	181,181
YoY Growth		91.9%	33.6%	70.0%	70.0%	70.0%	62.1%	50.0%	50.0%
QoQ Growth									
Afirma GEC Tests		20% of FNA	3,162						
% of FNA Samples			22%						
Covered Lives for Afirma GEC			125m						
Afirma 3rd Party Payers			100.0%						
Medicare			29.0%						
Aetna			17.0%						
United Healthcare			10.0%						
Other			44.0%						
\$800m mkt									
Geographic Revenues (Estimate)	11.6	21.9	7.5	9.5	10.1	13.7	40.8	80.0	120.0
Americas	11.6	21.9	7.5	9.5	10.1	13.7	40.8	80.0	120.0
ROW	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Growth Organic Estimated	339.6%	88.2%	70.5%	87.5%	80.6%	100.4%	86.3%	96.2%	50.0%
Acquisition Impact	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Acquisitions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cost of Goods	7.6	12.6	3.6	4.6	4.8	6.4	19.4	37.0	54.0
Gross Margin	\$ 4.0	\$ 9.3	\$ 3.9	\$ 4.9	\$ 5.3	\$ 7.3	\$ 21.4	\$ 43.0	\$ 66.0
Gross Margin %	34.8%	42.4%	51.8%	51.6%	52.5%	53.3%	52.4%	53.8%	55.0%
R & D Expenses	6.6	7.8	2.1	2.3	2.4	2.2	9.0	13.5	15.0
S & M Expenses	8.4	12.5	4.3	4.5	5.1	6.0	19.9	25.0	27.5
G & A Expenses	7.9	12.1	4.0	4.4	4.7	5.1	18.2	22.5	25.0
Operating Income (EBITDA)	\$ (18.9)	\$ (23.2)	\$ (6.6)	\$ (6.3)	\$ (6.9)	\$ (6.0)	\$ (25.8)	\$ (18.0)	\$ (1.5)
Op Margin (EBITDA %)	-162.8%	-105.9%	-87.9%	-66.3%	-68.3%	-43.8%	-63.2%	-22.5%	-1.3%
Interest Income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest (Expense)	0.0	(0.2)	(0.1)	(0.1)	(0.1)	(0.1)	(0.5)	(0.6)	(0.7)
Other Income (Expense), net	0.3	(2.2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pretax Income	\$ (18.6)	\$ (25.6)	\$ (6.7)	\$ (6.4)	\$ (7.0)	\$ (6.1)	\$ (26.2)	\$ (18.6)	\$ (2.2)
Income Taxes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tax Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Net Income Operating	\$ (18.6)	\$ (25.6)	\$ (6.7)	\$ (6.4)	\$ (7.0)	\$ (6.1)	\$ (26.2)	\$ (18.6)	\$ (2.2)
Extraordinaries (After Tax)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income GAAP	\$ (18.6)	\$ (25.6)	\$ (6.7)	\$ (6.4)	\$ (7.0)	\$ (6.1)	\$ (26.2)	\$ (18.6)	\$ (2.2)
Diluted Operating EPS	\$ (28.16)	\$ (6.15)	\$ (0.32)	\$ (0.30)	\$ (0.32)	\$ (0.28)	\$ (1.22)	\$ (0.85)	\$ (0.10)
Diluted GAAP EPS	(28.16)	(6.15)	(0.32)	(0.30)	(0.32)	(0.28)	(1.22)	(0.85)	(0.10)
Consensus Estimate 06-25-14			\$ (0.31)	\$ (0.34)	\$ (0.33)	\$ (0.33)	\$ (1.32)	\$ (0.90)	\$ (0.15)
Diluted Shares Outstanding	0.7	4.2	21.1	21.5	21.7	21.9	21.6	22.0	22.5

Source: Company reports, Janney Capital Markets estimate, Capital IQ, FactSet

06/25/14

Veracyte, Inc
Annual Revenue Breakout and Margins

Paul Knight
Janney Montgomery Scott
212-888-2696

% of Revenues

FY-ending Dec 31,	2012	2013	2014E				2015E	2015E
	2012	2013	1Q14	2Q14E	3Q14E	4Q14E	2014E	2016E
Revenues								
Total Revenues	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Cost of Sales	65.2%	57.6%	48.2%	48.4%	47.5%	46.7%	47.6%	45.0%
Gross Margin	34.8%	42.4%	51.8%	51.6%	52.5%	53.3%	52.4%	55.0%
R & D Expenses	56.8%	35.7%	28.4%	24.2%	23.8%	16.1%	22.1%	12.5%
S & M Expenses	72.6%	57.3%	58.0%	47.4%	50.5%	43.8%	48.9%	22.9%
G & A Expenses	68.1%	55.3%	53.3%	46.3%	46.5%	37.2%	44.6%	20.8%
Op Margin	-162.8%	-105.9%	-87.9%	-66.3%	-68.3%	-43.8%	-63.2%	-1.3%
Pretax Margin	-160.4%	-116.9%	-89.3%	-67.6%	-69.5%	-44.7%	-64.3%	-1.8%
Tax Rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Net Margin	-160.4%	-116.9%	-89.3%	-67.6%	-69.5%	-44.7%	-64.3%	-1.8%

YoY % Change

FY-ending Dec 31,	2012	2013	2014E				2015E	2016E
	2012	2013	1Q14	2Q14E	3Q14E	4Q14E	2014E	2016E
Revenues								
Total Revenues	339.6%	88.2%	70.5%	87.5%	80.6%	100.4%	86.3%	50.0%
Cost of Revenues	159.3%	66.2%	30.1%	42.4%	53.3%	84.4%	53.9%	45.9%
Gross Margin	(1544.3)%	129.4%	140.2%	166.7%	115.3%	116.8%	130.3%	53.5%
R & D Expenses	(1.1)%	18.2%	5.8%	20.9%	18.3%	17.6%	15.6%	11.1%
S & M Expenses	187.9%	48.5%	60.4%	72.1%	55.0%	52.6%	59.0%	10.0%
G & A Expenses	47.4%	52.8%	42.7%	60.8%	44.9%	53.2%	50.3%	11.1%
Op Margin	24.0%	22.4%	11.6%	16.3%	13.1%	4.1%	11.2%	(91.7)%
Pretax Income	29.1%	37.2%	(3.2)%	(1.1)%	11.4%	3.9%	2.6%	(88.2)%
Net Income Operating	29.1%	37.2%	(3.2)%	(1.1)%	11.4%	3.9%	2.6%	(88.2)%
Diluted Operating EPS	13.1%	(78.2)%	(96.5)%	(95.5)%	(95.1)%	(33.9)%	(80.2)%	(88.4)%
Diluted Shares Outstanding	14.2%	528.0%	2671.7%	2113.1%	2170.1%	57.1%	418.5%	2.3%

Source: Company reports, Janney Capital Markets estimate, Capital IQ, FactSet

Veracyte, Inc
Annual Cash Flow Statement

Paul Knight
Janney Montgomery Scott
212-888-2696

(\$ in millions, except per share data)

FY-ending Dec 31,	2012	2013	2014E				2015E	2016E
	2012	2013	1Q14	2Q14E	3Q14E	4Q14E	2014E	2016E
Operating Activities								
Net Income	\$ (18.6)	\$ (25.6)	\$ (6.7)	\$ (6.4)	\$ (7.0)	\$ (6.1)	\$ (26.2)	\$ (2.2)
Depreciation & Amortization	0.7	1.0	0.3	0.3	0.3	0.3	1.2	1.8
Genzyme co-promo fee amort	(2.4)	(2.5)	(0.6)	(0.6)	(0.6)	(0.6)	(2.5)	(2.5)
Stock-based comp	0.7	1.2	0.5	0.5	0.5	0.5	2.0	2.4
Working Capital	12.3	4.3	(0.3)	(0.4)	(0.4)	(0.4)	(1.5)	(4.4)
Other	0.2	2.4	0.1	0.0	0.0	0.0	0.1	0.0
Net from Operations	\$ (7.2)	\$ (19.2)	\$ (6.8)	\$ (6.6)	\$ (7.2)	\$ (6.3)	\$ (27.0)	\$ (4.9)
Investing Activities								
Acquisitions	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
Capital Expenditures	(1.5)	(1.3)	(0.1)	(0.5)	(0.5)	(0.5)	(1.6)	(2.2)
Other	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Net from Investing	\$ (1.5)	\$ (1.3)	\$ (0.1)	\$ (0.5)	\$ (0.5)	\$ (0.5)	\$ (1.6)	\$ (2.2)
Financing Activities								
Issuance/Reduction of Debt	\$ 0.0	\$ 4.9	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0
Sale/Repurchase of Common Stock	15.1	79.8	0.0	0.0	0.0	0.0	0.0	0.0
Dividends	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	(7.0)	(0.1)	0.0	0.0	0.0	(0.1)	0.0
Net from Financing	\$ 15.1	\$ 77.7	\$ (0.1)	\$ 0.0	\$ 0.0	\$ 0.0	\$ (0.1)	\$ 0.0
Exchange Rate Effect	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Change in Cash	\$ 6.4	\$ 57.2	\$ (7.0)	\$ (7.1)	\$ (7.7)	\$ (6.8)	\$ (28.7)	\$ (7.1)
Cash Flow	\$ (17.9)	\$ (24.6)	\$ (6.4)	\$ (6.1)	\$ (6.7)	\$ (5.8)	\$ (25.1)	\$ (0.5)
Cash Flow Per Share	(\$27.10)	(\$5.91)	(\$0.30)	(\$0.28)	(\$0.31)	(\$0.27)	(\$1.16)	(\$0.02)
EBITDA	\$ (18.2)	\$ (22.2)	\$ (6.3)	\$ (6.0)	\$ (6.6)	\$ (5.7)	\$ (24.6)	\$ 0.3
EBITDA per Share	(\$27.52)	(\$5.33)	(\$0.30)	(\$0.28)	(\$0.30)	(\$0.26)	(\$1.14)	\$0.01
Free Cash Flow	\$ (8.6)	\$ (20.5)	\$ (6.9)	\$ (7.1)	\$ (7.7)	\$ (6.8)	\$ (28.6)	\$ (7.1)
Free Cash Per Share	(\$13.03)	(\$4.93)	(\$0.33)	(\$0.33)	(\$0.36)	(\$0.31)	(\$1.33)	(\$0.32)

Source: Company reports, Janney Capital Markets estimate, Capital IQ, FactSet

Veracyte, Inc
Annual Balance Sheet Statement

Paul Knight
Janney Montgomery Scott
212-888-2696

(\$ in millions, except per share data)

FY-ending Dec 31,	2012	2013	2014E					2015E	2016E
	2012	2013	1Q14	2Q14E	3Q14E	4Q14E	2014E	2015E	2016E
Assets									
Current:									
Cash + Equivalents	\$ 14.0	\$ 71.2	\$ 64.2	\$ 57.1	\$ 49.3	\$ 42.5	\$ 42.5	\$ 20.2	\$ 13.1
Receivables - net	0.6	1.1	1.2	1.6	2.0	2.4	2.4	5.3	9.7
Inventories	1.1	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.7
Prepaid Exp and Other Assets	0.8	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Total Current Assets	\$ 16.4	\$ 76.4	\$ 69.2	\$ 62.4	\$ 55.1	\$ 48.6	\$ 48.6	\$ 29.2	\$ 26.5
PP & E, net	\$ 2.4	\$ 3.0	\$ 3.0	\$ 3.2	\$ 3.4	\$ 3.6	\$ 3.6	\$ 4.1	\$ 4.6
Restricted Cash	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other Assets	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Assets	\$ 19.1	\$ 79.6	\$ 72.5	\$ 65.9	\$ 58.8	\$ 52.5	\$ 52.5	\$ 33.6	\$ 31.3
Liabilities and Shareholders' Equity									
Current:									
Current Debt	\$ 0.0	\$ 0.0	\$ 0.5	\$ 0.5	\$ 0.5	\$ 0.5	\$ 0.5	\$ 0.5	\$ 0.5
Accounts Payable	1.9	5.3	7.2	7.2	7.2	7.2	7.2	7.2	7.2
Accrued Liabilities	4.0	7.6	5.3	5.3	5.3	5.3	5.3	5.3	5.3
Deferred Genzyme co-promo fee	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Other Liabilities	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Current Liabs.	\$ 9.0	\$ 15.4	\$ 15.4	\$ 15.4	\$ 15.4	\$ 15.4	\$ 15.4	\$ 15.4	\$ 15.4
Long-Term Debt	\$ 0.0	\$ 4.9	\$ 4.5	\$ 4.5	\$ 4.5	\$ 4.5	\$ 4.5	\$ 4.5	\$ 4.5
Deferred Genzyme co-promo fee,	5.1	2.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Other Liabilities	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Stockholders Equity	4.9	56.4	50.3	43.7	36.6	30.4	30.4	11.5	9.2
Total Liabs. & Equity	\$ 19.1	\$ 79.6	\$ 72.5	\$ 65.9	\$ 58.8	\$ 52.5	\$ 52.5	\$ 33.6	\$ 31.3
Audit	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Ratio Analysis

FY-ending Dec 31,	2012	2013	2014E					2015E	2016E
	2012	2013	1Q14	2Q14E	3Q14E	4Q14E	2014E	2015E	2016E
Book Per Share	\$7.40	\$13.57	\$2.38	\$2.03	\$1.69	\$1.39	\$1.41	\$0.52	\$0.41
Net Cash per Share	\$21.14	\$15.95	\$2.80	\$2.43	\$2.05	\$1.72	\$1.74	\$0.69	\$0.36
Return on Assets (ROA)	(97.8%)	(32.1%)	-36.8%	-39.0%	-47.8%	-46.6%	(50.0%)	(55.3%)	(7.0%)
Return on Equity (ROE)	(380.5%)	(45.3%)	(53.1%)	(58.7%)	(76.7%)	(80.6%)	(86.4%)	(162.4%)	(24.0%)
Inventory Turnover	7.2	4.9	5.3	6.8	7.1	9.4	7.1	13.6	19.8
Days Sales Outstanding	17.6	18.8	14.3	15.1	17.7	15.7	21.1	23.9	29.1
Current Ratio	1.8	5.0	4.5	4.0	3.6	3.1	3.1	1.9	1.7
Debt / Equity	0.0%	8.7%	9.8%	11.3%	13.5%	16.3%	16.3%	43.1%	53.9%
Debt / Capital	0.0%	8.0%	8.9%	10.1%	11.9%	14.0%	14.0%	30.1%	35.0%

Source: Company reports, Janney Capital Markets estimate, Capital IQ, FactSet

IMPORTANT DISCLOSURES

Research Analyst Certification

I, Paul Knight, the Primarily Responsible Analyst for this research report, hereby certify that all of the views expressed in this research report accurately reflect my personal views about any and all of the subject securities or issuers. No part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views I expressed in this research report.

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Janney Montgomery Scott LLC intends to seek or expects to receive compensation for investment banking services from Veracyte, Inc. in the next three months.

The research analyst is compensated based on, in part, Janney Montgomery Scott's profitability, which includes its investment banking revenues.

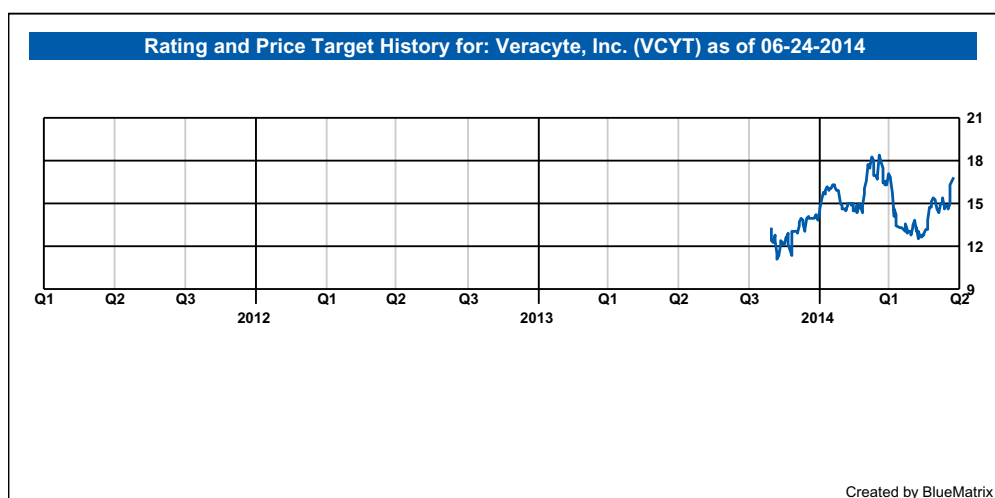
Definition of Ratings

BUY: Janney expects that the subject company will appreciate in value. Additionally, we expect that the subject company will outperform comparable companies within its sector.

NEUTRAL: Janney believes that the subject company is fairly valued and will perform in line with comparable companies within its sector. Investors may add to current positions on short-term weakness and sell on strength as the valuations or fundamentals become more or less attractive.

SELL: Janney expects that the subject company will likely decline in value and will underperform comparable companies within its sector.

Price Charts



Janney Montgomery Scott Ratings Distribution as of 3/31/14

Rating	Count	Percent	IB Serv./Past 12 Mos.	
			Count	Percent
BUY [B]	218	51.12	44	20.18
NEUTRAL [N]	205	48.12	21	10.24
SELL [S]	3	0.70	0	0.00

***Percentages of each rating category where Janney has performed Investment Banking services over the past 12 months.**

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