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Stock Rating
Overweight

Industry View
In-Line

Initiation

Veracyte Inc

Transforming thyroid cancer diagnostics; Initiate at Overweight; PT $16

VCYT is a rapidly growing molecular Dx company with a clinically & economically compelling test for sparing unnecessary surgeries during thyroid cancer diagnosis. The stock, down 13% since the IPO, fails to reflect the value from this test, with any pipeline success creating additional upside.

Opportunity to own an emerging molecular diagnostics leader: The company's molecular thyroid cancer test, the Afirma Gene Expression Classifier (GEC), launched in 2011 and already captured ~10% share of its US TAM. Based upon feedback from investors during the IPO roadshow and the stock's performance (-13% vs. peers ~ +8%) since pricing, we believe investors underestimate the test's value (yields a ~90% reduction in unnecessary surgeries) as well as the company's commercialization & payer strategy (Genzyme WW selling partnership, extensive KOL support, NCCN guideline inclusion, Medicare reimbursement & coverage from ~50% of US HMOs).

What's implied in the current stock price? Based upon our DCF, we estimate the stock price is discounting GEC market penetration (~30%) below our base case forecast; namely 24% by 2017 & 38% by 2023 vs. our forecast of 35% and 58%, respectively.

OW, $16 PT: Assumes a 4x AV/15 rev multiple vs. current 1-yr fwd AV/rev of 4.4x of peer group. An analysis of GHDX post IPO implies 4x is conservative. Our base case does not include any impact from lead pipeline diagnostic test (lung, expected 2016). We see a $30 bull case value (164% implied upside) & an $8 bear case (-30% downside).

Key risks: Ramp of Afirma GEC is slower than expected; increased competitive pressure; delays/failure of pipeline test (interstitial lung disease); possible selling pressure post expiry 180-day lock-up.

Key Ratios and Statistics

Reuters: VCYT.O Bloomberg: VCYT US
Life Science Tools & Diagnostics / United States of America

Price target	**$16.00**
Shr price, close (Nov 25, 2013)	$11.36
Mkt cap, curr (mm)	$239
52-Week Range	$14.12-10.88

Fiscal Year ending	**12/12**	**12/13e**	**12/14e**	**12/15e**
Revenue, net ($mm)	**11.6**	**21.3**	**41.0**	**76.0**
ModelWare EPS ($)	(2.67)	(1.26)	(1.36)	(0.85)
P/E	NM	NM	NM	NM
Consensus EPS ($)§	-	-	-	-

Unless otherwise noted, all metrics are based on Morgan Stanley ModelWare framework (please see explanation later in this note).
§ = Consensus data is provided by Thomson Reuters Estimates.
e = Morgan Stanley Research estimates

Quarterly Revenue, net ($mm)

Quarter	**2012**	**2013e Prior**	**2013e Current**	**2014e Prior**	**2014e Current**
Q1	1.5	-	4.4a	-	8.2
Q2	2.5	-	5.1a	-	10.3
Q3	3.2	-	5.6	-	10.6
Q4	4.5	-	6.3	-	11.8

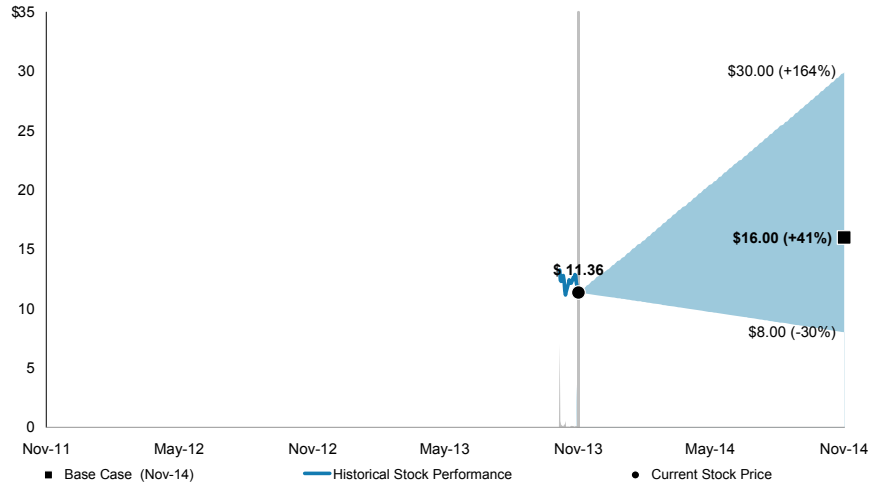
e = Morgan Stanley Research estimates, **a =** Actual company reported data

Table of Contents

Risk Reward Snapshot	**3**
Investment Debates Summary	**4**
Investment Case	**5**
Company Overview	**7**
Investment Debates Details	**10**
Valuation	**18**
Financial Models & Discussion	**21**

Risk Reward Snapshot: Veracyte (VCYT) $11.36, OW, PT $16

Risk Reward View: Paradigm changing molecular diagnostic with increasing adoption and test menu expansion



Source: Company Data, Morgan Stanley Research estimates, Thomson Reuters

Price Target: $16

We reach our price target of $16 using a 4x 2015 AV / Sales multiple on base case sales of ~$76MM assuming a slight discount vs the peer group's median AV/Sales multiple of 4.5x supported by our DCF analysis.

▲ Bull Case: $30 — **7.0x 2015 AV / Sales**

Our bull case of $30 based on a 2015 AV / Sales multiple of 7.0x, reflects better than expected penetration for Afirma as well as faster private payer coverage. We assume revenues increase 105% to $84MM with while lung visibility improves. Our DCF analysis reflects penetration increasing to 64% in 2023, while lung product adds $46MM to 2023 revenues with EBIT margin expanding to 14%

Base Case: $16 — **4.0x 2015 AV / Sales**

Our base case $16 reflects a 2015 AV / Sales multiple of 4.0x on $76MM of revs driven by US mkt penetration reaching ~23%. Expect multiple to trade at a slight discount given current lack of visibility on menu expansion. DCF analysis shows market penetration at 35% in 2017, reaching 58% by 2023 with EBIT margins at 10%.

▼ Bear Case: $8 — **2.5x 2015 AV / Sales**

Our bear case of $8 reflects a 2015 AV / Sales multiple of 2.5x on $47MM of revs. Under this scenario, we assume only 15% revenue growth in 2015 (akin to ~40% 2 Yr CAGR from 2013 revs. Coverage and reimbursement rates fail to increase as expected, while competing tests / tech hampers mkt share.

Investment Thesis

- We believe VCYT's Afirma solution for thyroid with its GEC is an effective assay for avoiding unnecessary surgery for cytology indeterminate thyroid patients based on a strong body of clinical validation studies, Medicare & private payer coverage, inclusion in key guidelines and interaction with key thought leaders.
- We expect Afirma to capture ~35+% share of its US addressable market by 2017, which when combined with expanding insurance coverage, a rising realized ASP and modest contribution from international GEC adoption, yields an attractive 60%+ revenue CAGR, a growth rate we do not believed is accurately reflected in the current stock price.

Key Value Drivers

- Increasing penetration of Afirma into endocrinologist practices with inclusion in key guidelines
- Improved coverage by private payers with contracts contributing to accrual revenue accounting treatment
- Expansion of test menu as data for lung product released
- Genzyme partnership accelerates the international adoption

Risks to Price Target

- Afirma adoption slower than expected with pushback from local pathologists
- Rival molecular tests limit Afirma's market share
- Ex US penetration fails to materialize
- Coverage/reimbursement fails to meet expectations
- Delay / failure of test menu expansion into lung opportunity

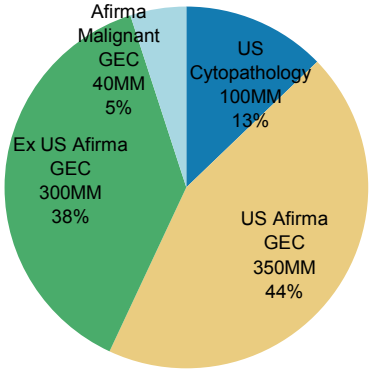
Investment Debates Summary

Debate #1: The investment opportunity for Veracyte is limited given the company derives revenues from one area, its gene expression Thyroid diagnostics test (and related cytopathology revenues). In addition, Thyroid cancer is a relatively small addressable market.

Our view: Given the significant unmet need in accurately diagnosing patients deemed to be 'indeterminate' for risk of Thyroid cancer upon initial cytopathology, and the company's proven, predictive genetic test to spare such patients unnecessary surgery, we see an attractive revenue opportunity based upon strong value-based pricing and significant market share. Additionally, while not in our base model, the company is increasingly optimistic regarding its next diagnostic test opportunity, in interstitial lung disease.

Exhibit 1

Total addressable market for Veracyte's Afirma Thyroid ~$800MM



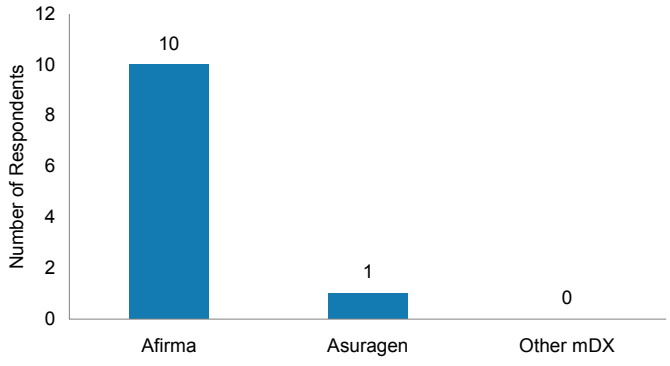
Source: Company Data, Morgan Stanley Research estimates

Debate #2: The competitive threat to Veracyte cannot be overlooked, given the seemingly low barriers to entry, limited issued patent estate, existing competition (Asuragen) who is also optimizing its diagnostic tests and strategies, and potential future entrants.

Our take: We view Veracyte's Afirma GEC as the clear market leader for accurately diagnosing indeterminate thyroid results - given its superior data, differentiated approach (rule out cancer to spare surgery), first mover advantage, KOL relationships, & Genzyme partnership - and as a result anticipate significant penetration & market share. Our forecasts do allow for room for future competitive inroads, given its rare to see one company completely dominate an attractive opportunity.

Exhibit 2

From our diligence, the vast majority of endocrinologists we spoke with liked Afirma over other molecular diagnostic tests



Source: Morgan Stanley Research

Investment Case

VCYT is a rapidly growing molecular diagnostics company with a clinically & economically compelling test, the Afirma Gene Expression Classifier (GEC), for sparing unnecessary surgeries during thyroid cancer diagnosis. We expect the test to capture significant share of its US addressable market by 2017, which when combined with expanding insurance coverage, a rising realized ASP and modest contribution from international GEC adoption, yields an attractive 60%+ revenue CAGR, a growth rate we do not believe is accurately reflected in the current stock price.

Key Investment Points:

- **Afirma GEC compelling clinical & economic profile:** The test's clinical performance, displayed in over 14 trials, including the pivotal 3,789 patient, 49 center prospective study featured in the New England Journal of Medicine, is changing the treatment paradigm for patients initially categorized as 'indeterminate' for risk of thyroid cancer by traditional cytopathology, yielding up to 90% reduction in unnecessary surgeries in patients reclassified as benign. With a significant reduction in surgeries, which cost ~$15,000, not to mention avoidance of additional downstream lifetime costs post surgery, economic utility analysis point to savings between $1400-2600 per test.

- **Sound commercialization strategy**: Management's plans on numerous fronts for commercializing the test in the US/abroad is impressive, including: 1) Medicare insurance coverage: received in early 2012, with the test being the first to receive favorable decision from Medicare's still nascent MolDX program (intended to help facilitate more accurate review/reimbursement for molecular tests); 2) ~50% coverage by US HMOs with continued expansion expected, with such rapid insurance success a testament to VCYT making billing and reimbursement a core strategy, building all the capabilities internally, 3) NCCN guideline inclusion to consider molecular testing with specific reference to Afirma, with a strategy towards gaining inclusion from ATA and AACE guidelines, 4) Genzyme global co-promotion, leveraging Genzyme's extensive thyroid endocrinologist relationships globally.

- **Attractive financial profile**: We model Afirma capturing 37% share of the US TAM by Q4 2017, international GEC revenues comprising 6% of the total revenues (with international molecular revenues at 8% of total molecular revenues, while the company guidance pegs ex US Afirma market TAM equal to US TAM, hence a conservative element in our model), yielding a 72% revenue CAGR thru 2016 (and 59% thru 2017). We model the company turning profitable in 2016 reaching 7.8% EBIT margins in 2017.

Key Debates:

Debate #1: The investment opportunity for Veracyte is limited given the company derives revenues from one area, its Afirma GEC thyroid cancer test (and related cytopathology revenues).

Our take: Fine needle aspirations (best proxy for addressable market) which are used to diagnose suspicious thyroid nodules, are conducted over 500K / year in the US and have been growing at a 10% CAGR. Given Afirma's compelling clinical data and attractive economic profile, we expect the test to achieve significant penetration in the US market, which when combined with the attractive price and modest ex US uptake creates a very attractive commercial opportunity & growth profile.

Debate #2: How sustainable is Afirma's GEC competitive position, given the seemingly low barriers to entry, limited issued patent estate, existing competition and potential future entrants?

Our take: We view Veracyte's Afirma GEC as the clear market leader given its superior data, differentiated approach (rule out), first mover advantage, KOL relationships, & Genzyme partnership and as a result expect the test to steadily expand its penetration of the TAM. We expect it would take any new competitor >3 years and >$30M to develop a competing test, and the bar is high given the Afirma's profile and data set. Our forecasts do allow for room for future competitive inroads, given its rare to see one company completely dominate an attractive opportunity.

Key Risks to our Price Target

Slower ramp of Afirma GEC than we forecast: We see several potential factors, which could lead Afirma to achieve a more moderate sales ramp than expected:

- Solutions based approach is a hurdle: the company seeks to take over the upfront cytopathology analysis from local pathology offices and instead have

endocrinologists send their FNAs to Veracyte's own contracted specialized cytopathology group in Texas, Thyroid Cytopathology Partners (TCP), in order to control the workflow. We heard several doctors express some concern with 'boxing out' their local pathologist given this model and thus could limit adoption of the GEC.

- First movers adopted the molecular approach whereas majority of endocrinologists are slower to embody molecular diagnostic testing, given the historical paradigm for thyroid cancer diagnostics has been mostly void of any accurate molecular approach.

- Usage limited to only a portion of indeterminate cytopathology category: the Bethesda guidelines, in an effort to help better define the intermediate cytopathology category during diagnosis of thyroid nodules, created three separate categories within indeterminate: 1) atypia of unknown significance (AUS), 2) follicular neoplasm, 3) suspicious for malignancy. Diligence suggests the test can be used more sparingly in the third category given the high rate of cancer that exists.

Ex US market fails to materialize: uptake of expensive molecular diagnostic tests in ROW, particularly a CLIA based approach where tests need to shipped back to the US, have generally made slow progress. While we assume ex US only comprises 6% of total revenues by 2017, nonetheless slower uptake remains a downside risk.

Increasing competition: Diligence indicates that Asuragen, the company's main current competitor, currently has an inferior test which is typically used more selectively in cases to help definitively call an indeterminate cytopathology read 'cancerous', and thus helping to confirm/support a decision to have the thyroid (in whole or in part) surgically removed. However, we understand new clinical data from the company is expected out by 2014, which could reveal a more competitive clinical profile to the Afirma GEC. In addition, while Veracyte has an issued patent and 5+ pending, a first mover advantage and robust clinical data set, nonetheless the attractive market opportunity in thyroid can attract new entrants utilizing gene expression or other (NGS?) genetic tools to develop competing test.

Slower rate of future HMO insurance coverage and/or reimbursement pressure: While the company to date has grown its commercial insurance coverage at an attractive rate, there is no certainty that additional insurers in the US will decide to cover the test. In addition, the company has not yet signed any contracts with payers, and there is risk that the reimbursement rate the company receives when such contracts are signed is lower than the company expects (20% premium to Medicare's rate).

Failure / delay of the lung diagnostic pipeline test: While the company's revenue growth rate and expanding margins/cash flow today are all derived from the GEC and related cytopathology reimbursement, for the stock to maintain/expand its current multiple will require visibility/success on commercializing additional diagnostic tests/revenue streams. The company's most advanced pipeline product is a test to help the diagnostic paradigm for interstitial lung disease (namely, idiopathic pulmonary fibrosis), with a launch expected in 2016 and an update on the data/strategy in 2014. While we do not include any revenues from this test in our model, nonetheless to the extent this product fails to advance or is meaningfully delayed, this would be a negative for the stock.

Valuation

Our $16 12 month price target assumes the stock trades at a 4x AV/2015 revenue multiple (i.e., a 'one year' forward revenue multiple) which equates to a 4.4x price/revenue multiple. We expect investors to value Veracyte based upon a multiple of revenues (and consider both enterprise value to sales and price to sales) given the company is unprofitable and is not expected to generate a profit until 2016.

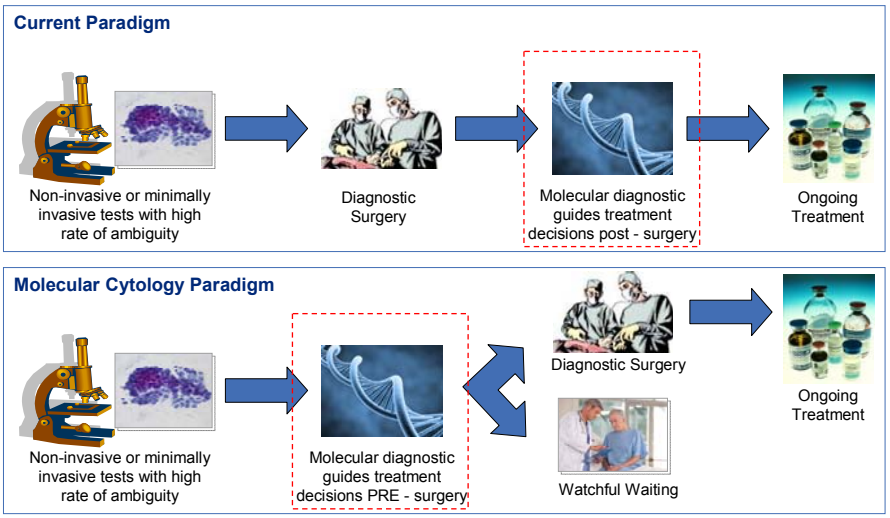
Since there no good single comparable/small group of comparables for Veracyte we expect investors to evaluate Veracyte vs. a broader list of molecular diagnostic peers, which currently trade at an AV/2014 revenue of 4.5x and a price to revenue multiple of 4.4x.

Genomic Health (GHDX) will likely be viewed as the best single comp, and while GHDX currently trades at 3.4x 2014 AV/revenues and 3.7x 2014 price/revenues, looking back to post GHDX's 2005 IPO (when GHDX was just beginning to penetrate its new genetic testing market and was growing at rates more consistent with Veracyte's growth rate), GHDX traded at ~7x AV/revenues.

Company & Technology Overview

Company Description

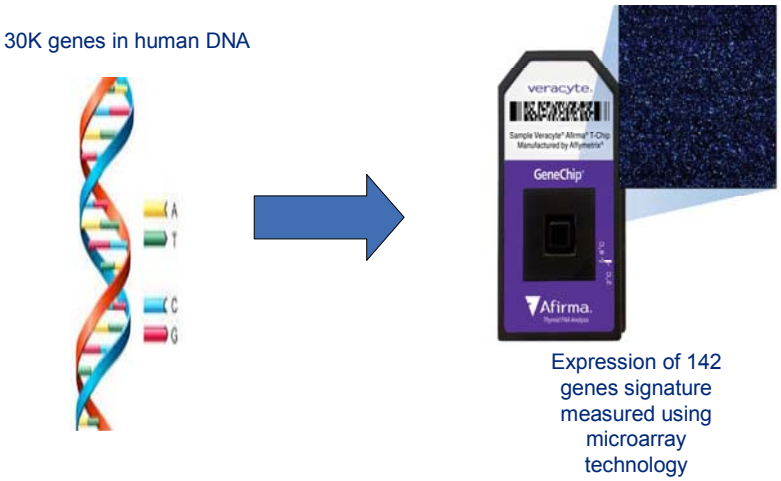
Veracyte is a molecular diagnostics company that seeks to improve patient outcomes and lower healthcare costs by targeting diseases that require invasive procedures for accurate diagnosis and where many healthy patients undergo costly interventions that ultimately prove unnecessary. The company currently has one commercial solution, the Afirma Thyroid FNA Analysis, designed to reduce the number of patients with benign thyroid nodules who undergo unnecessary surgery. Veracyte's solution includes the company's proprietary, 142-gene signature, Gene Expression Classifier (GEC), which seeks to preoperatively determine whether thyroid nodules classified by cytology as indeterminate are actually benign. Since launching Afirma in 2011, the company has processed over 60K FNAs and ran over 12K GECs. Afirma obtained coverage with Aetna, Humana, Medicare, and UnitedHealthcare, who represent over 100MM lives.



Source: Morgan Stanley Research

Moving molecular testing upstream to reduce unnecessary surgeries

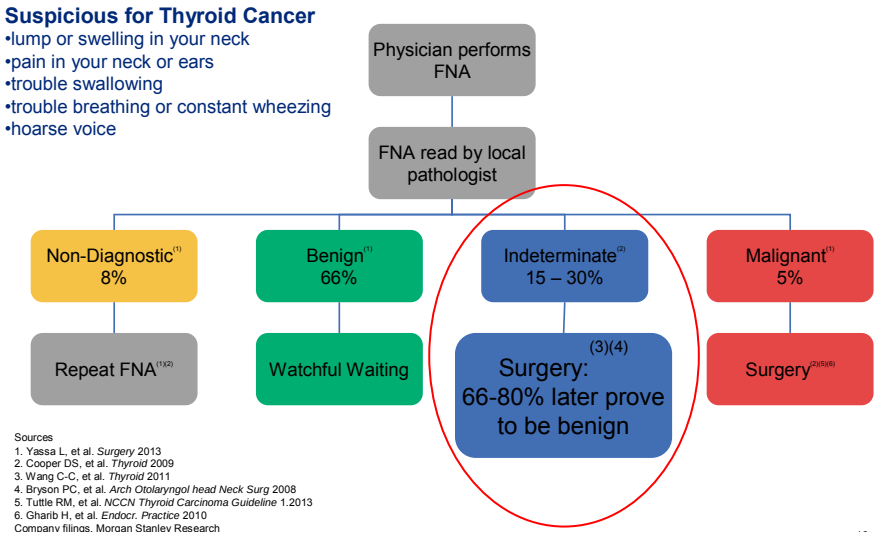
Veracyte seeks to identify conditions where the ability to arrive at an accurate diagnosis is difficult leading to a material amount of unnecessary surgeries. It seeks to use molecular diagnostic testing in a pre-operative setting to enable better patient care and outcomes.

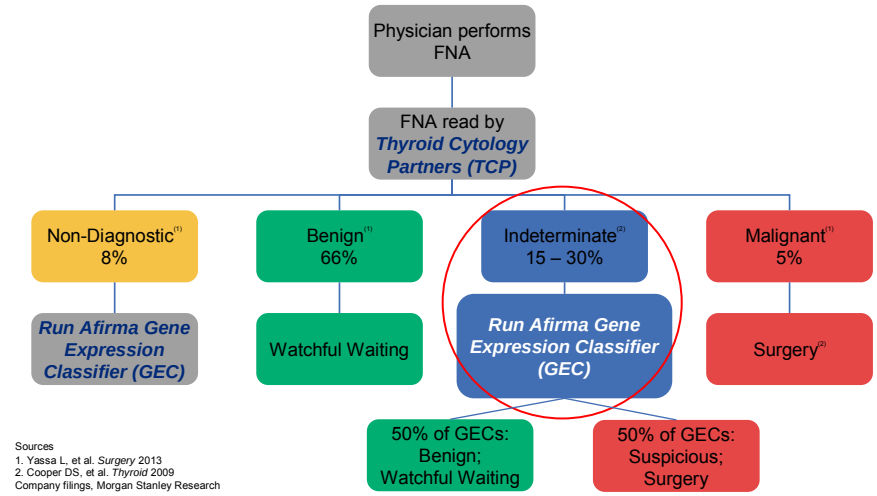


Source: Morgan Stanley Research

Afirma Gene Expression Classifier

Veracyte's first commercial product, the Afirma Thyroid FNA Analysis, has at its core, the Afirma Gene Expression Classifier (GEC). This classifier is composed of a microarray-based assay testing for a 142-gene signature, selected by a proprietary algorithm.



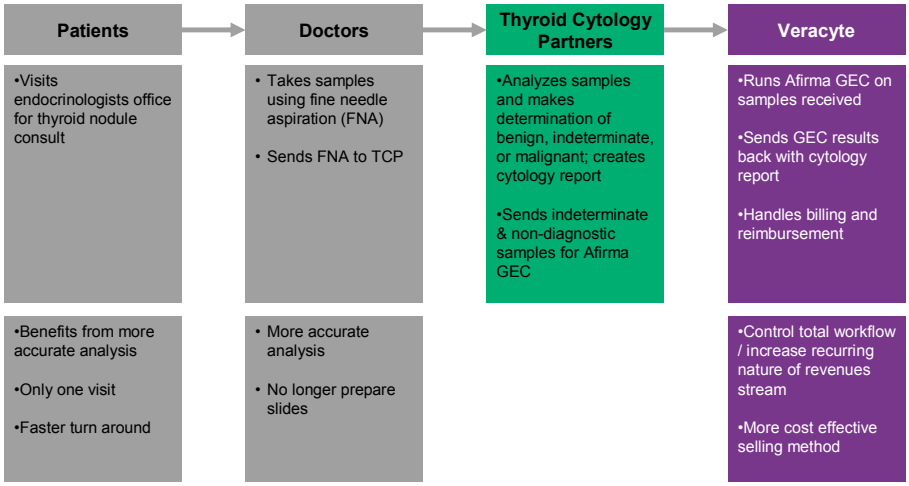


Diagnosing Thyroid Cancer: Current Paradigm

Currently, upon discovery of a thyroid nodule, a patient undergoes a fine needle aspiration (FNA) which takes a sample of the nodule. The FNA is then prepared for cytopathology analysis where a pathologist attempts to determine if the cells within the sample are benign, malignant, or indeterminate. In the case of indeterminate FNAs, the thyroid is typically surgically removed, resulting in a significant number of unnecessary surgeries as 66-80% of cytopathology indeterminate reads prove to be benign.

Afirma GEC Workflow

Veracyte looks to prevent unnecessary surgeries through the use of its GEC in the case of indeterminate cytopathology FNAs. Approximately 50% of previously cytopathology indeterminate FNA reads are reclassified as benign, allowing patients to avoid thyroid surgery and undergo watchful waiting instead.



Source: Company filings, Morgan Stanley Research

Veracyte Solutions-based Approach

In addition to the GEC that Veracyte offers, the company seeks to streamline the entire FNA analysis process by offering endocrinologists a complete solution, including cytopathology readings done by dedicated thyroid pathologists at Thyroid Cytology Partners (TCP). TCP has the exclusive right to provide cytopathology diagnoses for Veracyte's Afirma solution and is co located with Veracyte in its Austin facility.

Debate 1: The investment opportunity for Veracyte is limited due to its single commercial product, which itself addresses a small market

Debate #1: The investment opportunity for Veracyte is limited given the company derives revenues from one area, its gene expression Thyroid diagnostics test (and related cytopathology revenues). In addition, Thyroid cancer is a relatively small addressable market.

Our view: Given the significant unmet need in accurately diagnosing patients deemed to be 'indeterminate' for risk of Thyroid cancer upon initial cytopathology, and the company's proven, predictive genetic test to spare such patients unnecessary surgery, we see an attractive revenue opportunity based upon strong value-based pricing and significant market share. Additionally, while not in our base model, the company is increasingly optimistic regarding its next diagnostic test opportunity, in interstitial lung disease.

Veracyte seeks to use molecular diagnostic solutions to improve patient treatment for diseases that currently have a significant degree of diagnostic uncertainty and pose large costs on the healthcare system that in many cases prove unnecessary. Veracyte looks to improve accuracy of diagnosis for these health conditions prior to surgical intervention through deriving clinically actionable data from genomic-based analysis.

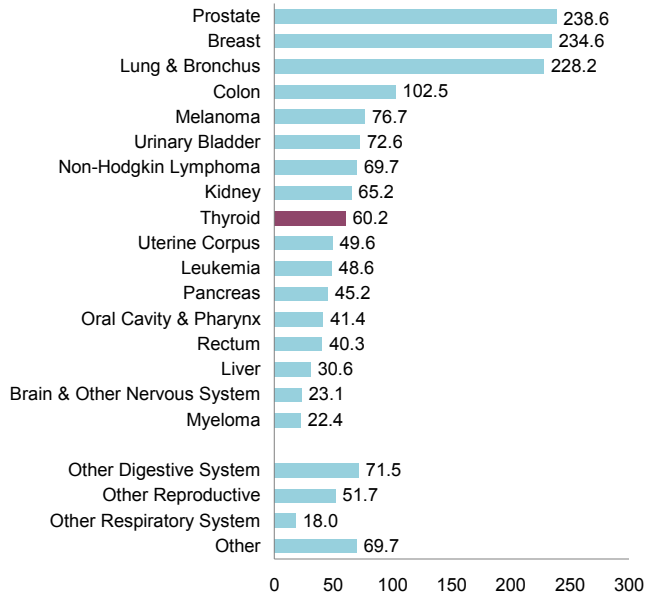
The company's Afirma Thyroid FNA Analysis is its first commercialized and integrated solution designed to address the uncertainty in cytology reads of FNA biopsies. Afirma relies upon the use of a proprietary, 142-gene signature, the Gene Expression Classifier (GEC), which is able to preoperatively determine if an indeterminate cytology read can be reclassified as benign, eliminating the uncertainty that would have otherwise led to surgical removal of the thyroid gland. By reducing ambiguity through molecular diagnostics, Veracyte hopes to improve patient outcomes and reduce overall costs.

Thyroid Diagnostics: Addressable market

The total number of new incidence of Thyroid cancer per year is ninth largest out of ~30+ total cancer types, thus not insignificant. In addition, the rate of growth in new incidence has been rapidly raising, making Thyroid cancer one of the fastest growing cancer types.

Exhibit 3

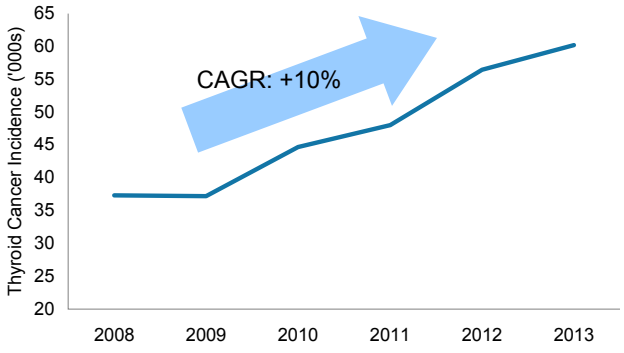
US Cancer New Cases Incidence in 2013 ('000s)



Source: American Cancer Society: Cancer Facts & Figures 2013, Morgan Stanley Research

Exhibit 4

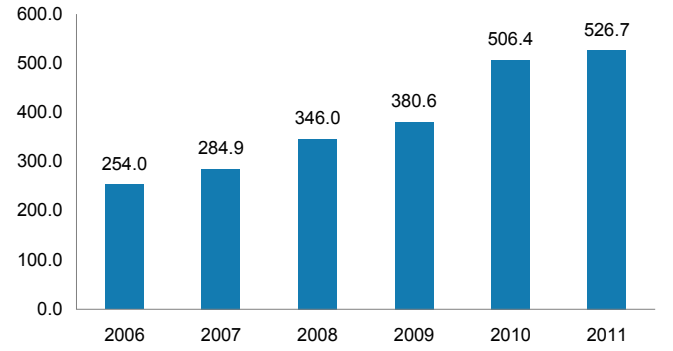
Thyroid cancer is one of the fastest growth cancers in the US with a 5 yr incidence CAGR of 10%



Source: American Cancer Society, Morgan Stanley Research

As a diagnostic test intended to rule out patients from unnecessary surgery, the true addressable market for the Afirma gene classifier (GEC) begins with the number of fine needle aspirations (FNAs) conducted. An FNA is administered to patients presenting at a general practitioner with a nodule in their neck in order to make an accurate diagnosis (benign or malignant).

Exhibit 5
Thyroid nodule FNA volume ('000s)



Source: Sosa JA, et al., "Increases in thyroid nodule fine-needle aspirations, operations, and diagnoses of thyroid cancer in the United States," *Surgery* 2013; Morgan Stanley Research

The traditional paradigm discussed by the company and confirmed in the literature and our diligence is for the large majority of patients diagnosed as indeterminate to undergo a thyroidectomy. In a study of thyroid cancer diagnosis in the US[1], researchers found that in 2011, total thyroidectomies (total thyroid removal) accounted for more than half (56%) of the operations for thyroid neoplasms, with total thyroidectomies increasing 12% per year, vs lobectomies (partial removal) increasing 1% per year on average.

Despite thyroid cancer being quite a slowly progressing disease (at least 300K people in the US have completed treatment or remain alive with the disease), patients have overwhelmingly favored surgical removal upon an indeterminate diagnosis, to remove any ambiguity, with studies showing 70-80% have surgical resection.[2] However, only ~20-34% of such indeterminate surgically removed nodules turn out to be malignant[3], making this 'surgical diagnostic' approach tremendously inefficient with a significant human and economic burden.

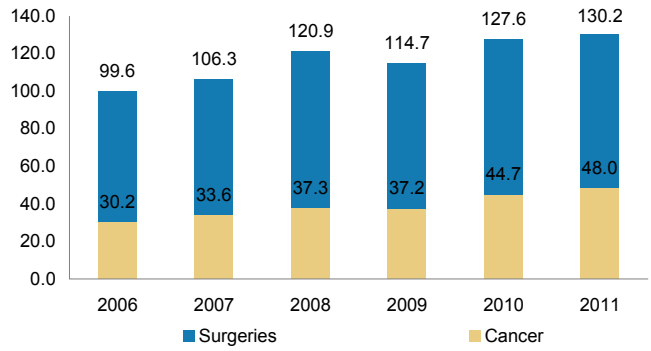
Exhibit 6
Human and economic costs of unnecessary thyroidectomies

Human Cost	Economic Cost
Life long synthetic hormonal therapy	Thyroidectomy costs ~$15K (surgery/initial hospital stay costs only)
Risk of damage to voicebox from surgery	
Potential damage to parathyroid glands	

Source: Company Data, Morgan Stanley Research

[1] Sosa JA, et al., "Increases in thyroid nodule fine-needle aspirations, operations, and diagnoses of thyroid cancer in the United States," *Surgery* 2013.
[2] *Ibid.*
[3] *Ibid.*

Exhibit 7
Thyroid cancer / nodule surgery: only ~1/3rd of surgeries turn out cancerous ('000s)



Source: Sosa JA, et al., *Surgery* 2013; Morgan Stanley Research

The Afirma GEC solution

We expect the company's Afirma gene expression classifier (GEC) test to capture significant share of the addressable market over time. Based upon the test's compelling clinical efficacy, presented in numerous peer-reviewed journals, the company has already been granted Medicare reimbursement. In fact, according to management, the test was the first to receive a Z code under Medicare's MolDX program (a program created to facilitate detailed and unique identification through registration of molecular diagnostic tests, establish clinical utility expectations, complete technical assessment of published test data to determine clinical utility and coverage, and establish reimbursement). We estimate a Medicare reimbursement rate between $3,000-3,500 and expect commercial reimbursement to occur at a premium to CMS rates (on the order of ~20%). Such strong pricing is a key factor underpinning the addressable commercial opportunity for the test.

Based upon our diligence related to numerous factors – clinical data, quality of life & economic benefits, guideline acceptance, KOL sponsorship, Genzyme relationship, and strong management – we expect the test to capture significant share of its addressable market, further supporting our expectation for an attractive commercial opportunity for the test & the company.

Factors supporting significant penetration of Afirma:

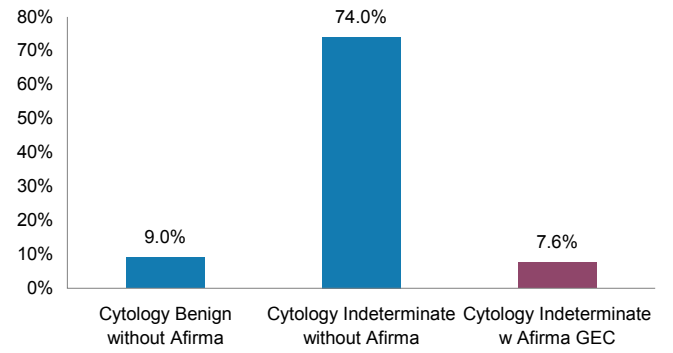
Strong clinical data set & growing list of publications: The flagship trial measuring Afirma GEC's diagnostic utility was a prospective study conducted over 19 months with 49 clinical sites involving 4,812 FNAs of which there were 577

cytologically indeterminate samples. The classifier was ran on 265 cytologically indeterminate samples and achieved a sensitivity of 92%, specificity of 52% and a negative predictive value ranging from 95% (in AUS), 94% (in FLUS) and 85% (in suspicious for malignancy types). This level of NPV along with strong sensitivity are key to the test's success in ruling out cancer, as the Afirma NPV is on par with the NPV from cytopathology when calling an FNA 'benign' (i.e., 6% of the time a pathologist is incorrect and says a nodule is benign when it's really cancer, and similarly 6% of the time the Afirma GEC says previously called 'indeterminate' nodule is benign when in fact it's cancer). Afirma's list of publications is extensive, with 14+ publications in peer reviewed medical journals spanning topics from clinical validity and utility to health economics. While a large number of studies were sponsored by the company itself, there is additional third party evidence, which supports Veracyte's results.

Improving patient care & reducing unnecessary surgery: Prior to Afirma's GEC, a multicenter study of thyroid cancer showed that ~74% of patients receiving an indeterminate reading from cytopathology went on to receive surgery. In Veracyte's clinical utility study, the use of the Afirma GEC reduced the number of patients going to surgery by 90%, from 74% down to 7.6%. This 7.6% surgical rate from cytology indeterminate, GEC benign readings compares to the surgical rate for cytology benign patients (patients sometimes elect to undergo thyroidectomies due to other factors including size of the nodule, etc.).

Exhibit 8

Use of Afirma's GEC reduces surgeries by 90% in cases where cytology shows an indeterminate result

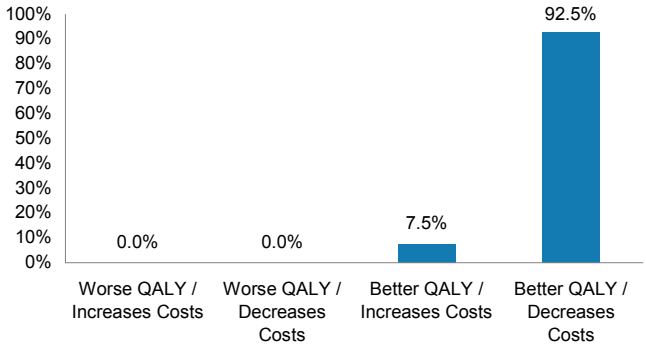


Source: Wang CC, et al. "A Large Multicenter Correlation Study of Thyroid Nodule Cytopathology and Histopathology," *Thyroid* 2011; Duick D, et al. "The Impact of Benign Gene Expression Classifier Test Results on the Endocrinologist-Patient decision to Operate on Patients with Thyroid Nodules with Indeterminate Fine-Needle Aspiration Cytopathology," *Thyroid* 2012; Morgan Stanley Research

Economic benefit: The large reduction in unnecessary surgeries from use of Afirma GEC translates into significant cost savings, given the significant direct cost of surgery (often cited at $15K, though can run as high as $30K). In the company's clinical utility study funded by Veracyte and conducted by John Hopkins, researchers used statistical modeling based on the 2009 American Thyroid Association Guidelines for treatment of thyroid nodules. Researchers ran over 1MM simulations of patients who had cytologically indeterminate thyroid nodules and concluded that use of Afirma's GEC for cytologically indeterminate thyroid nodules resulted in direct cost savings in 97-98% of the simulations with a average savings of $1,453 (net of the cost of the Afirma GEC) and an increase of 0.07 in quality adjusted life years. A key assumption underpinning the cost savings estimate above is the rate of surgery on a GEC benign nodule, which researchers in the study assumed to be ~14%. Given the much lower 7.6% surgical rate for GEC benign patients in the Duick et al study published in *Thyroid* in 2012, the Hopkins study would have resulted in a cost savings of $2,600. Based upon a 15% indeterminate rate and 525K FNAs per year, the total annual direct savings assuming 100% utilization of Afirma GEC range from ~$100m-$200m (whether the $1,453 or $2,600 estimate is used).

Exhibit 9

93% of the 1M Monte Carlo simulations in the clinical utility study resulted in patient outcomes where Afirma GEC both improved patient quality-adjusted life years (QALY) and lowered overall costs



Source: Li H, et al., "Cost-effectiveness of a Novel Molecular Test for Cytologically Indeterminate Thyroid Nodules" *Journal of Clinical Endocrinology and Metabolism*, 2011; Morgan Stanley Research

Guideline inclusion: Inclusion of molecular testing into cancer/thyroid association guidelines will also be key factors driving Afirma GEC's penetration. The updated 2013 National Comprehensive Cancer Network (NCCN) guidelines recommends molecular diagnostics testing as an option (along with surgery or repeating FNA) when cytology of thyroid nodules is deemed indeterminate. Further, the NCCN guideline

suggests that if a molecular diagnostic test predicts a risk of malignancy comparable to the risk of malignancy of a benign cytopathology result, observation (rather than surgery) should be considered. In addition, the company expects both the American Thyroid Association (ATA) and American Association of Clinical Endocrinologists (AACE) to update their guidelines to include a recommendation to consider molecular testing with indeterminate cytopathology results. The significant association between the ATA and AACE's committee members and the Afirma GEC (~50% of ATA committee members have co-authored papers on Afirma & one-third currently use Afirma; ~1/3 of AACE's writing committee members use Afirma and Veracyte officials have presented to 100% of the committee's members) lend support to forthcoming guideline inclusion.

Afirma as a complete solution: A key part of Veracyte's commercialization strategy and another factor in our expectation of significant penetration is the company's 'solutions-based' approach. Namely, Veracyte looks to control the initial cytopathology diagnostic assessment, which sits upstream of the Afirma molecular test. The company has an exclusive partnership with Thyroid Cytology Partners (TCP, whose CLIA lab is located in Texas) to provide cytopathology services to endocrinologists. As a result, when TCP encounters an indeterminate read (of the Atypia for Unknown Significance type (AUS) or Suspicious for Follicular Neoplasm type (FLUS)), the case is automatically reflexed and sent to Veracyte's California-based CLIA lab where the Afirma GEC is run. By offering a complete solution to endocrinologists, from dedicated cytopathology for FNAs to automatic reflex (in AUS and FLUS types) to GEC, Veracyte expects to achieve a 'sticky' relationship with endocrinology customers. Importantly, automatic reflex in AUS and FLUS to GEC from cytopathology also should increase the rate of GEC ordering, removing ambiguity if a local pathologist encounters an indeterminate read (and in some cases, a repeat FNA or surgery is recommended). Moreover, by directing samples to TCP where FNAs are read by pathologists who are solely dedicated to reading thyroid nodule biopsies, Veracyte is able to achieve a more accurate initial read, with TCP reporting a ~15% indeterminate rate vs. local pathology labs whose indeterminate rates can be as high as 30%.

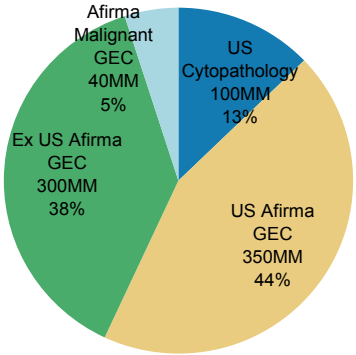
Genzyme co-promotion support: Veracyte also has a co-promotion agreement with Genzyme to market Afirma in the US and in 40 other countries. Genzyme currently markets Thyrogen, a post-surgical thyroid cancer treatment agent, in over 42 countries globally. Thus, with Genzyme's extensive salesforce who already have existing channel relationships with endocrinologists, Veracyte will benefit marketing the Afirma GEC to this same channel while Genzyme benefits from the financial economics of Afirma's rapid sales growth. The terms call for Veracyte to pay Genzyme a current co-promotion fee equal to 40% (declining to 32% in March 2014) of all cash receipts. While in the US, we expect Veracyte could likely market/sell the test with its own salesforce (given the relatively targeted customer base of just ~3500 endocrinologists), the leverage should be greater via penetrating the more fragmented customer targets in non-US countries. Our model assumes more favorable terms starting in 2016.

Total Addressable market for GEC: $800M

In addition to the US indeterminate FNA opportunity, the company has several other revenue streams associated with thyroid cancer diagnostics, namely: (1) US cytopathology revenues (fees associated with the technical component of the FNA), (2) International Afirma GEC revenues, and (3) better diagnosing malignant thyroid cancers (an area the company estimates is $40M in potential revenues whereas we do not break out separately in our model, hence possible upside exists).

Exhibit 10

Total addressable market for Afirma



Source: Company Data, Morgan Stanley Research estimates

Within the US, Veracyte bills cytopathology reads at $490 per read, with typical reimbursement around $150 from Medicare (private payers expected to be slightly higher). With more than 500K FNAs done annually, US cytopathology market opportunity estimates of $100MM seem reasonable. However, we do not expect Veracyte to address 100% of this market given two factors: 1) when dealing with larger academic centers, Veracyte will often only run the GEC and allow the local academic center to run its own cytology read; and 2) we expect that there will be some non-academic centers who will continue to run cytology with a local pathology lab.

The US GEC market size depends on the number of FNAs performed, the indeterminate rate, and the reimbursement rate per GEC. Based on an estimate of ~525K+ FNAs conducted annually in the US, an indeterminate rate of 20%, and a GEC ASP of ~$3,250 (current list price of $4,275), we feel comfortable with market size estimate of ~$350MM

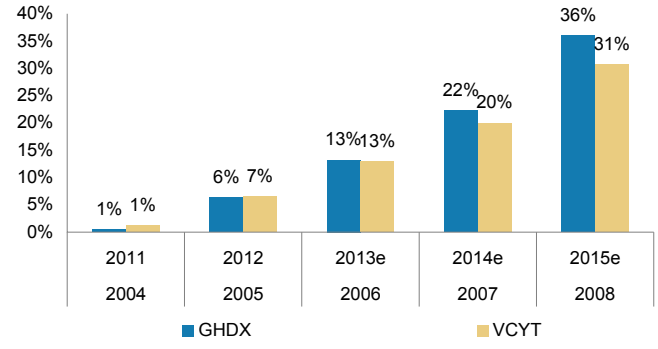
The international market is most difficult to size given varying thyroid standard practices around the globe (for instance in Germany, standard thyroid nodule treatment calls for surgery or ultrasound without conducting FNAs, making Germany a subpar opportunity for Afirma GEC). We note that Veracyte did receive a CE mark for its product in April 2013. Based on diligence and initial conversations with management and Genzyme, we believe that ex US opportunities are currently targeted towards Italy, the Netherlands, Brazil, Canada, Israel, Australia, and to a lesser extent Chile and Greece. Given the sheer size of the market, even with potentially lower reimbursement rates from ex US national healthcare systems, a $300MM market opportunity estimate is reasonable. However, we do model more modest international GEC penetration & revenues given uncertainty around timing and lack of clarity on commercialization progress.

Our model: 11% penetration of US TAM rising to 35% by 2017

In total, we estimate Veracyte revenues growing from $21M in 2013 up to $136M by 2017, for a CAGR of ~63%. We assume the company's share of the addressable market rises from 11% at YE 2013 up to 35% by 2017, forecasts which we feel are reasonable. (Genomic Health, which pioneered molecular diagnostic testing for assessing recurrence risk in breast cancer patients, achieved ~35% penetration of the US market by the 5th year of its test's commercialization.

Exhibit 11

Comparison of GHDX and VCYT market penetration since commercial launch using standardized TAM



Source: Company Data, Morgan Stanley Research estimates

Given potential variation in TAM for breast cancer and thyroid nodules, we assumed a stable TAM of 110K early stage invasive breast cancer patients to calculate GHDX's market penetration and a stable 525K thyroid nodule FNAs performed annually to calculate VCYT's market penetration (whereas our model reflects a growing TAM for Veracyte as FNA volumes increase over time). Nevertheless, we see our growth estimates as comfortable given GHDX's trajectory.

Veracyte also looks to expand the addressable market by adding to its existing Afirma Thyroid FNA Analysis an Afirma Malignant GEC that would add genomic information to treatment decisions. The company looks to add subclass and other information to better surgical selection with the product introduction scheduled for Q2 2014. We currently do not include any impact from this test, given diligence suggested a modest opportunity (though the company expects the test to impact demand, hence we will await additional information).

Beyond Thyroid – Interstitial lung disease next opportunity

Interstitial lung disease (ILD) is set of group of lung diseases affected by the tissue and space around the lung's air sacs, and similar to Thyroid, making a definitive diagnosis of certain ILDs is quite difficult, hence an opportunity for Veracyte to apply its molecular testing expertise. The company estimates there are over 200K patients suffering from an ILD annually, where a significant portion of indeterminate patients undergo invasive surgical procedure when an initial bronchoscopy is inadequate for definitive diagnosis. Veracyte is currently in the late stage biomarker discovery phase for idiopathic pulmonary fibrosis (IPF), a type of ILD, and we expect an update on this program during 2014. The company currently projects US commercial launch in 2016. We do not include any ILD diagnostic revenues in our forecast (despite the company's optimism) given limited current visibility.

Debate 2: How sustainable is Veracyte's market position

Debate #2: The competitive threat to Veracyte cannot be overlooked, given the seemingly low barriers to entry, limited issued patent estate, existing competition, which is also optimizing its diagnostic tests and strategies, and potential future entrants.

Our take: We view Veracyte's Afirma GEC as the clear market leader for accurately diagnosing indeterminate thyroid results - given its superior data, differentiated approach (rule out), first mover advantage, KOL relationships, & Genzyme partnership - and as a result anticipate significant penetration & market share. Our forecasts do allow for room for future competitive inroads, given its rare to see one company completely dominate an attractive opportunity.

The market opportunity for thyroid cancer diagnostics has attracted several companies to develop genetic tests in addition to Veracyte, with Asuragen the leading competitor, and our feedback also indicates Lab Corp offers a test (though we were only able to find a test for diagnosing thyroid disorders). Additionally, with the continued throughput advances and commensurate price declines from next generation sequencing (NGS), there is optimism towards NGS targeted panels, exomes and whole genome tests making inroads as the diagnostic test of choice in cancer. Given these issues, despite Veracyte's strong initial launch of its GEC, investors have expressed concerns about pressure from current competitors in addition to new future entrants given perceived low barriers to entry.

Exhibit 12

Thyroid diagnostic testing overview: Asuragen the current direct competitor

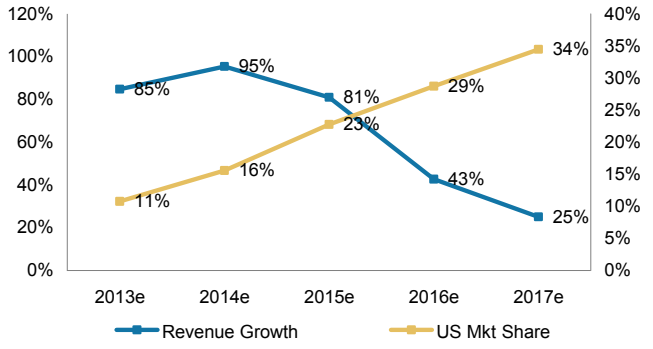
Test Name	Company	Type of Test	Sample	Target	Tech
Afirma	Veracyte	mDX, Rule Out Cancer	FNA	142 Genes	RT PCR
miRInform Thyroid	Asuragen	mDX, Rule In Cancer	FNA	17 Genes	RT PCR
Thyroid Cascade	LabCorp	Differential Diagnosis	Blood	Hormone & Antibody	Immuno-assay
Thyroid Cascading Reflex	Quest	Differential Diagnosis	Blood	Hormone & Antibody	Immuno-assay
		Genetic Sequencing	Variable		NGS

Source: Company Data, Morgan Stanley Research

We take a more bullish view towards Veracyte's competitive positioning and resultant share gains and revenue growth based upon numerous factors, which we detail below. We expect existing competitors to capture very little market share of the addressable thyroid market, although we do maintain some conservatism in our revenue ramp projections in part to account for more serious competitive risks in the future

Exhibit 13

Veracyte Revenue Growth vs Market Penetration



Source: Company Data, Morgan Stanley Research estimates

Competition

As discussed in the 'corporate overview' section, Veracyte's approach to improving the diagnostic and treatment paradigm with thyroid cancer began with identifying the core essence of the problem:

- patients presenting with suspected thyroid cancer who were classified as 'indeterminate' by a traditional cytopathology analysis
- were in the large majority of cases proceeding to get surgery, given concerns that their suspicious nodule was cancer
- however only a ~1/3rd of such patients *post* surgery were shown to have cancer[4], thus highlighting the major issue of over-treatment (with surgery)

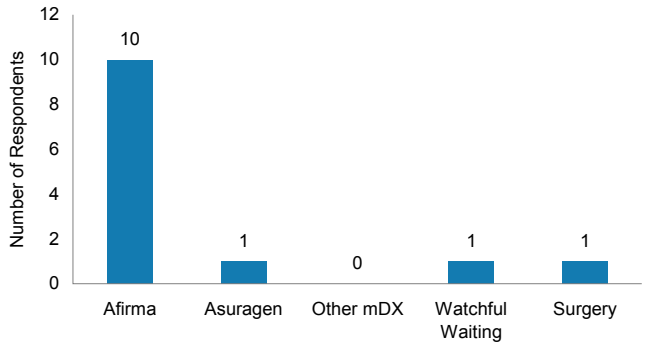
Thus the issue is *not* identifying which 'indeterminate' patients in fact have cancer (a 'rule in' approach), since in majority of cases indeterminate patients are having surgery regardless. Rather, its 'ruling out' with high confidence which patients do not have cancer in order to 'spare them' having to go through a

[4] Sosa JA, et al., "Increases in thyroid nodule fine-needle aspirations, operations, and diagnoses of thyroid cancer in the United States," *Surgery* 2013.

diagnostic surgical procedure that is predominately unnecessary, costly, and detrimental to quality of life.

Exhibit 14

Our diligence with endocrinologists and pathologists reflects Afirma is the clear early market leader for treatment of thyroid nodules



Source: Company Data, Morgan Stanley Research. Data represents interviews conducted by Morgan Stanley of US endocrinologists and pathologist during June – August 2013

Asuragen

Asuragen, the key competitor in this field, markets its miRInform THYROID assay, which is composed of 17 genes typically found in thyroid cancers, including BRAF, RAS, RET/PTC, and utilizes both RNA and DNA markers. Given the test's lower sensitivity, endocrinologists with whom we consulted did not consider the test appropriate to rule out cancer. The company's own description of the test reflects this: *a negative miRInform result is indicative of the fact that none of the markers was detected. It is important to note that a negative result does not mean the nodule was benign.*

Feedback we gleaned indicated miRInform is predominately used as a 'rule-in' test, to identify which patients deemed indeterminate upon cytopathology do in fact have thyroid cancer. Thus, the test is used to help 'confirm' a patient's decision to have surgery (or to lend support to a doctor's recommendation for surgery). However, given the pressing issue of over-treatment of indeterminate patients, and given miRInform THYROID's inability to identify which patients can be spared surgery, feedback from oncologists and thought leaders in the field indicate this test will face hurdles in widespread adoption.

Exhibit 15

Thyroid cancer diagnostic tests – Performance Specs

Company	Test	Sensitivity	Specificity	NPV	PPV
Veracyte	Afirma GEC	>90%	52%	93-95%	47%
Asuragen	miRInform	81%	63%		

Source: Company Data, Morgan Stanley Research, Alexander EK, et al. "Preoperative Diagnosis of Benign Thyroid Nodules with Indeterminate Cytology," *The New England Journal of Medicine* 2012.
Asuragen data based upon an Asuragen conducted case-control study of 413 surgical specimens, with cross-validation in 254 resected lesions.

The company plans to follow up with a clinical validation in preoperative samples to validate the test's sensitivity and specificity in indeterminate nodules. The study is expected to involve more than 200 indeterminate samples from more than 10 clinical sites across the country with data expected in 2014.

Other competitors

Feedback from endocrinologists in the field indicated Lab Corp offers a competing test (though inferior to the Afirma GEC) to diagnose suspected thyroid cancer patients who receive an indeterminate cytopathology report, although additional diligence revealed the company only markets a test to diagnose thyroid disorders (and is not appropriate for diagnosing thyroid neoplasms). Hence, at this point, we do not consider Lab Corp a direct competitor.

Future new entrants?

With the adoption of next gen sequencing in clinical diagnostic settings (most notably in NIPT and cancer) occurring at a rapid pace, albeit off a small base, and the emergence of new genetic technologies (NanoString's nCounter, for instance), a common investor concern/risk voiced regarding the outlook for the Afirma GEC is the risk from new entrants.

The attractive commercial opportunity for thyroid cancer diagnostics (unmet need, concentrated customer base, largely Greenfield opportunity, attractive pricing) and relatively fast time to market underpinned the expectation that a new competitor (s) could enter this market. Veracyte has filed 6 US nonprovisional patent applications, 1 allowed patent application related to methods used in Afirma diagnostic and 1 pending US provisional patent for the company's lung disease product. Thus far, only one patent has been issued.

Although our market share / penetration forecasts provide some cushion for a new entrant, we are confident Veracyte will not only capture dominant share of the market given its wealth of competitive advantages, but the company also has created numerous barriers to entry that will be formidable for new potential entrants.

Veracyte's Competitive Advantages & Barriers to Entry

Complete solution: We expect the company's complete solution approach from cytopathology to molecular diagnostic will serve as a meaningful barrier to new competition, given the stickiness of the relationships with endocrinologists this model provides.

High competitive bar given customer satisfaction: Customer satisfaction with the Afirma GEC and the total solution is quite robust. The company and Genzyme commissioned a market research study done by Sermo, which found that 75% of Afirma users reported being either extremely satisfied or very satisfied with the test. Similarly, our own diligence with endocrinologists suggests that there is a high level of satisfaction with the Afirma solution from customers who have incorporated the test into their practice.

Time, costs and difficulties to develop a competing test: It took Veracyte ~$40MM+ and ~4 years of to develop and commercialize the Afirma GEC and even with the continued advancement of molecular technology performance, we believe any new entrant would need a similar amount of time to create the algorithm and generate the body of data to be competitive. In addition, as Veracyte continues to gain market share, there will be fewer and fewer patients going to surgery from indeterminate cytology results, hence creating a higher competitive hurdle for a new test.

Guidelines & Reimbursement: Although NCCN guidelines recommend 'molecular diagnostics' as an option, the guideline goes on to cite Afirma data, hence creating a hurdle towards competitors. Aetna's positive coverage decision for Afirma also specifically recommends against coverage for Asuragen citing insufficient sensitivity and specificity.

Patents: Although only one patent has been granted to date, this patent alone covers 60 broad claims covering the test's performance, genetic algorithms and clinical decision making intended use. In addition, the company has 6 additional patents pending. Hence, management believes a new competitor would find it difficult to commercialize a test similar to the GEC.

Valuation

We expect the market to utilize an aggregate value / revenue multiple approach as the primary methodology to value Veracyte with price / sales multiples also considered, given Veracyte is an early stage growth company not forecasted to turn profitable until 2016. Our DCF analysis (out to 2028) also provides support for our valuation.

When evaluating the proper AV/revenue multiple for Veracyte vs. the set of comparable companies, we expect the market to consider a number of factors, including:

- Revenue growth outlook
- Competitive positioning
- Profitability at steady state (and timing to achieve this)
- Current and future addressable market
- Needs for additional financing

We do not see a perfect comparable for Veracyte amongst publicly traded molecular diagnostics companies. Thus, we expect investors to compare Veracyte to a broader set of companies, which include: GHDX, NSTG, EXAS, QDEL, SQNM, VIVO, FMI, MYGN, and to a lesser extent, QGEN & CPHD.

We view GHDX as the closest comp (CLIA based genetic testing company who until recently marketed a single genetic test; and created the market for genetic testing in woman with breast cancer post surgery, controlling nearly 100% of this market). However, we think it is important to evaluate Veracyte's valuation against GHDX's valuation and growth from its IPO onward, during the period when GHDX was establishing the market with very little competition and growing rapidly.

Exhibit 16

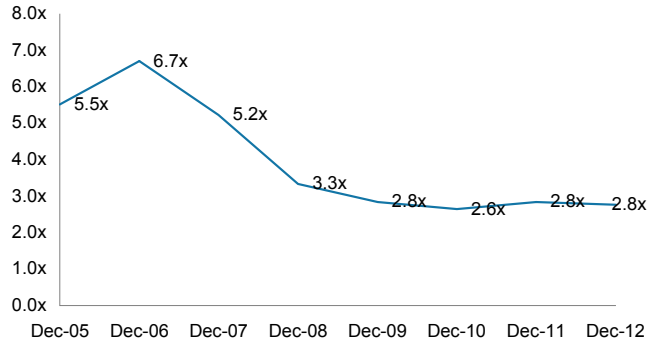
Comparison of post IPO valuation of GHDX & VCYT

	GHDX	VCYT
AV at IPO	228	199
Mkt Cap at IPO	294	273
Price Target		**$16.00**
AV FY1 post IPO	420	297
Mkt Cap FY1 post IPO	457	336
Est. Revs FY2 post IPO	63	76
AV FY1 / Sales FY2	**6.7x**	**3.9x**
P FY1 / Sales FY2	**7.3x**	**4.4x**

Source: Company Data, Thomson Reuters, Morgan Stanley Research

Exhibit 17

GHDX Historical 1 Year Forward AV/Sales Multiple



Source: Company Data, Thomson Reuters, Morgan Stanley Research

$16 Price target: Given our expectation for 92% & 85% revenue growth in 2014 and 2015, with a 5 year revenue CAGR of 63%, as the dominant player in a growing market, we view our 4x AV/2015 revenue multiple (4.4x Price/revenues) as reasonable if not conservative. The price target multiples compare to GHDX's early trading multiples (6.7x AV/revenues & 7.3x Price/revenues one year after IPO) and a 4.4x AV/2014 revenue median of slower growing, established molecular testing companies in the comp table below. Also see our DCF analysis, which arrives at a fair value of ~$14.50 today, supporting our price target of $16 for YE 2014, reflecting US mkt penetration of 23% in 2015, 35% in 2017, growing to 58% in 2023. We see peak penetration of ~64% of the US thyroid market reached in 2025. In our base case valuation, we do not assume any revenues from VCYT's lung product.

Exhibit 18

Diagnostics comps

Ticker	Name	Price	Mkt Cap	Agg Value	Current AV / Sales 2013e	Current AV / Sales 2014e	Current AV / Sales 2015e	Price / Sales 2013e	Price / Sales 2014e	Price / Sales 2015e	Sales CAGR '13 - '14	Sales CAGR '14 - '15	Sales CAGR '12-'15	Sales CAGR '12-'17
QGEN	Qiagen	$23.43	$5,616	$6,122	4.7x	4.5x	4.2x	4.3x	4.1x	3.8x	5.2%	6.1%	5.7%	5.3%
CPHD	Cephei	$44.69	$3,032	$2,959	7.6x	6.6x	5.7x	7.8x	6.8x	5.8x	14.6%	17.0%	16.4%	15.6%
MYGN	Myriad Genetics	$29.08	$2,174	$1,658	2.8x	2.3x	2.3x	3.6x	3.0x	3.0x	20.1%	0.7%	13.6%	3.8%
EXAS	EXACT Sci	$11.95	$847	$702	170.3x	24.8x	7.9x	205.5x	29.9x	9.6x	586.7%	212.6%	177.8%	135.0%
FMI	Foundation Medn	$25.75	$725	$790	36.3x	15.8x	12.0x	33.3x	14.5x	11.0x	129.8%	31.4%	116.6%	83.4%
GHDX	Genomic Health	$35.02	$1,076	$969	3.7x	3.3x	2.9x	4.1x	3.7x	3.2x	12.6%	12.7%	12.5%	10.2%
GNMK	GenMark	$11.79	$489	$454	16.8x	16.7x	10.7x	18.1x	18.0x	11.5x	0.6%	56.1%	33.0%	41.7%
NSTG	NanoString Tech	$12.03	$176	$142	4.6x	2.6x	1.7x	5.7x	3.2x	2.2x	75.7%	49.8%	52.3%	46.7%
QDEL	Quidel	$25.08	$851	$847	4.9x	4.2x	3.6x	4.9x	4.3x	3.7x	15.2%	16.3%	14.5%	14.3%
SQNM	Sequenom	$2.63	$304	$369	2.2x	1.6x	1.3x	1.8x	1.3x	1.0x	43.5%	22.7%	48.9%	59.5%
VIVO	Meridian Biosci	$24.07	$999	$959	5.1x	4.7x	4.3x	5.3x	4.9x	4.5x	8.2%	8.0%	8.5%	10.0%
Overall														
Mean					23.5x	7.9x	5.2x	26.8x	8.5x	5.4x	82.9%	39.4%	45.4%	38.7%
Median					4.9x	4.5x	4.2x	5.3x	4.3x	3.8x	15.2%	17.0%	16.4%	15.6%
VCYT		**$11.36**	**$239.0**	**$158.1**	**7.4x**	**3.9x**	**2.1x**	11.2x	5.8x	3.1x	92.2%	85.3%	86.9%	63.4%

Source: Company Data, Thomson Reuters, Morgan Stanley Research estimates

Exhibit 19

DCF Analysis

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	Terminal
Total Revenues	**21.3**	**41.0**	**76.0**	**108.4**	**135.6**	**160.3**	**186.8**	**214.9**	**244.6**	**275.4**	**307.3**	**331.9**	**343.5**	**345.1**	**346.7**	**348.3**	
Total FNA Revenues	6.9	10.3	18.7	26.5	34.3	40.2	46.3	52.5	58.9	65.2	71.5	77.7	80.6	80.9	81.2	81.6	
Total GEC Revenues	14.4	30.7	57.2	81.9	101.3	120.1	140.5	162.4	185.7	210.2	235.8	254.2	262.9	264.2	265.4	266.7	
EBIT	**(24.0)**	**(27.7)**	**(17.2)**	**2.3**	**10.5**	**13.1**	**16.0**	**19.3**	**22.9**	**26.9**	**31.3**	**35.1**	**37.7**	**39.3**	**40.8**	**42.4**	
Tax rate	0.0%	0.0%	0.0%	0.0%	0.0%	8.8%	17.5%	26.3%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	
EBIAT	(24.0)	(27.7)	(17.2)	2.3	10.5	12.0	13.2	14.2	14.9	17.5	20.3	22.8	24.5	25.5	26.5	27.6	
+ Depreciation	1.0	1.2	1.6	2.3	3.0	3.1	3.1	3.1	3.1	3.2	3.2	3.2	3.3	3.3	3.3	3.3	
- Capital Expenditures	(1.2)	(1.7)	(2.7)	(3.8)	(4.1)	(4.1)	(4.2)	(4.2)	(4.2)	(4.3)	(4.3)	(4.4)	(4.4)	(4.4)	(4.5)	(4.5)	
- Change in Net Working Capital	(0.7)	4.1	1.9	(0.1)	1.4	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)	(1.5)	(1.5)	(1.5)	(1.5)	(1.5)	
Free Cash Flows	(24.9)	(24.1)	(16.4)	0.7	10.9	9.5	10.7	11.7	12.4	14.9	17.8	20.2	21.9	22.9	23.9	24.9	
PV of Free Cash Flows		(23.0)	(14.1)	0.5	7.7	6.0	6.2	6.1	5.9	6.4	6.9	7.1	7.0	6.6	6.2	5.9	299.5

Analysis																
Revenue Y/Y growth	92.2%	85.3%	42.7%	25.1%	18.2%	16.5%	15.1%	13.8%	12.6%	11.6%	8.0%	3.5%	0.5%	0.5%	0.5%	
Overall US mkt penetration	**15.2%**	**22.8%**	**28.7%**	**34.5%**	**38.3%**	**42.2%**	**46.1%**	**50.1%**	**54.0%**	**58.0%**	**61.9%**	**63.6%**	**63.6%**	**63.6%**	**63.6%**	
FNA revenue Y/Y growth	49.3%	81.9%	41.4%	29.3%	17.3%	15.2%	13.5%	12.1%	10.8%	9.7%	8.6%	3.7%	0.4%	0.4%	0.4%	
GEC revenue Y/Y growth	112.6%	86.4%	43.1%	23.7%	18.5%	17.0%	15.6%	14.3%	13.2%	12.2%	7.8%	3.5%	0.5%	0.5%	0.5%	
EBIT (Margin)	**-67.6%**	**-22.7%**	**2.2%**	**7.8%**	**8.2%**	**8.6%**	**9.0%**	**9.4%**	**9.8%**	**10.2%**	**10.6%**	**11.0%**	**11.4%**	**11.8%**	**12.2%**	
Depreciation Y/Y Growth	20.7%	33.8%	37.8%	34.7%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	
CapEx Y/Y Growth	45.8%	52.5%	42.7%	7.2%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	
Working Capital Y/Y Growth	715.2%	-55.0%	-106.7%	1260.5%	-200.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	
FCF Y/Y Growth	3.0%	32.1%	104.1%	1521.0%	-13.5%	13.1%	9.3%	5.6%	20.9%	18.8%	13.9%	8.3%	4.5%	4.4%	4.2%	

Assumptions	
LT annual FNA addressable mkt growth	0.4%
Annual mkt penetration increase	4.0%
Annual increase in US acad GEC	0.4%
Annual increase in Intl GEC	2.0%
Annual growth in GEC ASP	$100
EBIT % expansion/yr	0.4%
Depreciation growth	0.9%
CAPEX growth	1.0%
Growth in working capital	0.1%
Perpetual Growth Rate in FCF	2.0%

WACC	
10 year Risk-free rate	3.50%
Equity Risk Premium	5.00%
Beta	1.5
Cost of Equity	11.0%
Debt Spread	5.50%
Tax rate	35.0%
After Tax Cost of Debt	5.9%
Debt Ratio	10%
Equity Ratio	90%
WACC	**10.5%**

DCF Per Share	
Aggregate Value	264.0
Less: Debt YE 13	4.6
Add: Cash YE 13	70.8
Equity Value	330.2
Fully Diluted Shares	22.8
DCF Value per Share YE 13	**$14.47**
DCF Implied Share Price YE 14	**$16.06**
Current Share Price	$11.36

Calculations	
Discount Rate	10.5%
Total Discounted Value of FCF	41.4
Terminal Value	299.5
Discounted Terminal Value	222.5
Terminal Year	2028
Current	2013

Terminal Value Sensitivity

Terminal	WACC								
Growth	8.5%	9.0%	9.5%	10.0%	10.5%	11.0%	11.5%	12.0%	12.5%
0.5%	313.0	294.6	278.2	263.6	250.4	238.5	227.6	217.7	208.7
1.0%	335.5	314.5	296.0	279.6	264.9	251.6	239.7	228.8	218.8
1.5%	361.3	337.2	316.1	297.5	281.0	266.2	252.9	240.8	229.9
2.0%	391.0	363.0	338.8	317.7	299.0	282.4	267.5	254.1	242.0
2.5%	425.6	392.9	364.8	340.5	319.2	300.4	283.7	268.8	255.4
3.0%	466.6	427.7	394.8	366.6	342.2	320.8	301.9	285.1	270.1

Firm Value Sensitivity

Terminal	WACC								
Growth	8.5%	9.0%	9.5%	10.0%	10.5%	11.0%	11.5%	12.0%	12.5%
0.5%	345.2	324.5	305.8	289.0	273.7	259.7	246.8	235.0	224.1
1.0%	343.8	322.1	302.7	285.3	269.5	255.1	242.0	230.0	218.9
1.5%	343.7	320.8	300.5	282.4	266.1	251.3	237.9	225.6	214.3
2.0%	345.3	320.9	299.4	280.4	263.5	248.2	234.4	221.8	210.3
2.5%	348.6	322.4	299.6	279.5	261.7	245.8	231.5	218.6	206.8
3.0%	354.2	325.7	301.1	279.7	260.9	244.3	229.4	216.0	203.8

Equity Value Sensitivity

Terminal	WACC								
Growth	8.5%	9.0%	9.5%	10.0%	10.5%	11.0%	11.5%	12.0%	12.5%
0.5%	$18.03	$17.12	$16.31	$15.57	$14.90	$14.28	$13.72	$13.20	$12.72
1.0%	$17.97	$17.02	$16.17	$15.41	$14.71	$14.09	$13.51	$12.98	$12.50
1.5%	$17.97	$16.96	$16.07	$15.28	$14.57	$13.92	$13.33	$12.79	$12.30
2.0%	$18.04	$16.97	$16.03	$15.20	$14.45	$13.78	$13.18	$12.62	$12.12
2.5%	$18.18	$17.03	$16.03	$15.15	$14.38	$13.68	$13.05	$12.48	$11.97
3.0%	$18.43	$17.18	$16.10	$15.16	$14.34	$13.61	$12.96	$12.37	$11.84

Source: Company Data, Morgan Stanley Research

Modeling Section / Q3 Update

We model Veracyte's revenues growing to $76MM in 2015 (3 year CAGR of 87%), and to $136MM in 2017 (a 5 year CAGR of 63.4%). We model FNA volumes increasing 60% in 2014, and 64% in 2015, while GEC volumes increase 71% in 2014 and 62% in 2015. GEC volumes from TPC projected to grow 71% in 2014 and 67% in 2015, while GEC volume from US academic centers rise 34% in 2014 and 33% in 2015. We also see international GEC volumes starting in 2014, increasing 116% in 2015.

We do not project the company to achieve profitability until 2016 (also when the company turns cash flow positive). We see gross margins increasing from 45% at YE 2013 to 60% by the end of 2015 as coverage decisions move forward into contract for reimbursement for Afirma GEC, raising ASP of the GEC from current MSe $1,800 to $2,400 as more revenues are accounted for under accrual method. We see EBIT margins going from -105% at YE 2013 to -17.5% by YE 2015 and assume that the Genzyme partnership remains in place unchanged. (Currently 40% of all cash receipts paid to Genzyme as part of SG&A, percentage set to decrease to 32% in March 2014). We assume more favorable terms for the co-promotion agreement in 2016.

Q3 2013 Overview

Q3 results were in-line with guidance provided in the S-1 and our model with revenues of $5.6M (MSe $5.6M), FNAs of 12,417 (MSe 12,424), GEC revenues of ~$3.9M (MSe $3.8M) and cytopathology revenues of $1.7M (MSe $1.7M).

Gross margins of 44% were ahead of MSe 40% (the company technically does not report a gross margin given inability to match COGS and revenues but thus our numbers are estimated), R&D of 36% below MSe 45%, SG&A of 117% ahead of MSe of 113%, and an operating loss equal to 109% of revenues (vs. MSe of -113%).

Guidance: The company indicated that they saw strong FNA volumes in October and November. While not providing Q4 guidance (the company's policy will be to offer annual guidance and will not provide quarterly guidance, though we expect annual guidance will be adjusted as necessary), management indicated Q4 revenues will grow sequentially. We currently forecast Q4 revenues of $6.3M, +12% sequentially.

Financial Models

Exhibit 20

Income Statement

	2011A	2012A				2012A	2013E				2013E	2014E	2015E	2016E	2017E
		Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4					
Revenues	**2.6**	**1.5**	**2.5**	**3.2**	**4.5**	**11.6**	**4.4**	**5.1**	**5.6**	**6.3**	**21.3**	**41.0**	**76.0**	**108.4**	**135.6**
COGS	2.9	1.3	1.7	2.0	2.6	7.6	2.8	3.2	3.1	3.5	12.6	21.7	33.0	42.5	49.8
Gross Profit	**(0.3)**	**0.2**	**0.7**	**1.2**	**1.9**	**4.0**	**1.6**	**1.8**	**2.5**	**2.8**	**8.7**	**19.3**	**42.9**	**65.9**	**85.8**
R&D	6.7	1.5	1.7	1.7	1.7	6.6	2.0	1.9	2.0	2.8	8.8	12.7	13.3	15.7	18.3
SG&A	8.3	3.0	3.7	4.4	5.3	16.4	5.5	5.4	6.5	6.6	24.0	34.3	46.8	47.8	57.0
Total Operating Expense	**15.0**	**4.5**	**5.4**	**6.2**	**7.0**	**23.0**	**7.5**	**7.3**	**8.6**	**9.4**	**32.8**	**47.0**	**60.1**	**63.6**	**75.3**
EBIT	**(15.3)**	**(4.2)**	**(4.6)**	**(4.9)**	**(5.1)**	**(18.9)**	**(5.9)**	**(5.4)**	**(6.1)**	**(6.6)**	**(24.0)**	**(27.7)**	**(17.2)**	**2.3**	**10.5**
Depreciation & Amortization	0.6	0.2	0.2	0.2	0.2	0.7	0.2	0.2	0.3	0.3	1.0	1.2	1.6	2.3	3.0
EBITDA	(14.7)	(4.1)	(4.4)	(4.8)	(4.9)	(18.2)	(5.7)	(5.2)	(5.8)	(6.3)	(23.0)	(26.5)	(15.6)	4.6	13.6
Interest Income / (Expense)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(0.0)	(0.1)	(0.1)	(0.3)	(0.5)	(0.4)	(0.2)	(0.0)
Other Income / (Expense)	0.8	0.0	0.0	0.0	0.3	0.3	(1.0)	(1.1)	(0.1)	(0.1)	(2.2)	(0.3)	(0.3)	(0.3)	(0.3)
Profit before tax	**(14.4)**	**(4.2)**	**(4.6)**	**(4.9)**	**(4.8)**	**(18.6)**	**(6.9)**	**(6.5)**	**(6.3)**	**(6.8)**	**(26.5)**	**(28.5)**	**(17.9)**	**1.8**	**10.2**
Tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net Income	**(14.4)**	**(4.2)**	**(4.6)**	**(4.9)**	**(4.8)**	**(18.6)**	**(6.9)**	**(6.5)**	**(6.3)**	**(6.8)**	**(26.5)**	**(28.5)**	**(17.9)**	**1.8**	**10.2**
Diluted EPS										($0.32)	($1.26)	($1.36)	($0.85)	$0.09	$0.49
Diluted EPS (GAAP)	($24.90)	($7.32)	($7.97)	($7.59)	($7.44)	($28.68)	($10.60)	($9.98)	($6.59)	($0.32)	($1.26)	($1.36)	($0.85)	$0.09	$0.49
Basic Shares Outstanding	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	1.0	21.0	21.0	21.0	21.0	21.0	21.0
Diluted Shares Outstanding	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	1.0	21.0	21.0	21.0	21.0	21.0	21.0
Dilution Ratio															
Margin Analysis															
COGS as % of revs	110.6%	85.4%	70.4%	61.6%	58.3%	65.2%	63.3%	63.8%	56.0%	55.0%	59.0%	52.9%	43.5%	39.2%	36.7%
Gross margin	-10.6%	14.6%	29.6%	38.4%	41.7%	34.8%	36.7%	36.2%	44.0%	45.0%	41.0%	47.1%	56.5%	60.8%	63.3%
R&D as % of revs	252.6%	100.9%	67.6%	53.6%	38.6%	56.8%	45.8%	37.5%	36.3%	45.0%	41.1%	31.0%	17.5%	14.5%	13.5%
SG&A as % of revs	314.0%	203.2%	148.5%	138.0%	117.8%	140.7%	125.3%	105.6%	116.8%	105.0%	112.4%	83.7%	61.7%	44.1%	42.0%
EBIT margin	-577.2%	-289.5%	-186.6%	-153.2%	-114.8%	-162.8%	-134.4%	-106.9%	-109.1%	-105.0%	-112.6%	-67.6%	-22.7%	2.2%	7.8%
Tax rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Net income	-546.2%	-289.5%	-186.5%	-153.2%	-108.5%	-160.4%	-157.2%	-128.1%	-112.7%	-108.2%	-124.2%	-69.6%	-23.6%	1.7%	7.5%

Source: Company Data, Morgan Stanley Research estimates

Exhibit 21

Revenue Build

	2011A	2012A				2012A	2013E				2013E	2014E	2015E	2016E	2017E
		Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4					
Total Revenues	**2.6**	**1.5**	**2.5**	**3.2**	**4.5**	**11.6**	**4.4**	**5.1**	**5.6**	**6.293**	**21.3**	**41.0**	**76.0**	**108.4**	**135.6**
Total Afirma Revenues	2.6	1.5	2.5	3.2	4.5	11.6	4.4	5.1	5.6	6.3	21.3	41.0	76.0	108.4	135.6
Total Rare Neoplasms Revenues															
Total Lung Product Revenues															
			42.9%	25.7%	31.9%		15.6%	15.5%	-0.1%	15.8%					
Fine Needle Aspiration (FNA)															
Total FNA market addressed by VCYT	525,000	148,208	148,208	148,208	148,208	592,830	158,078	158,078	158,078	158,078	632,310	673,410	707,017	738,730	768,136
FNAs received (#)		**3,925**	**5,610**	**7,052**	**9,303**	**25,890**	**10,757**	**12,424**	**12,417**	**14,385**	**49,983**	**79,967**	**131,417**	**180,066**	**232,745**
Mkt penetration		2.6%	3.8%	4.8%	6.3%	4.4%	6.8%	7.9%	7.9%	9.1%	7.9%	11.9%	18.6%	24.4%	30.3%
Non-diagnostics FNAs (#)		314	449	564	744	2,071	861	994	993	1,151	3,999	6,397	10,513	14,405	18,620
Non-diagnostic rate		8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
FNAs billable for cytopathology (#)		3,611	5,161	6,488	8,559	23,819	9,896	11,430	11,424	13,234	45,984	73,570	120,903	165,660	214,126
Cytopathology ASP ($)		$150	$150	$150	$150	$150	$150	$150	$150	$150	$150	$140	$155	$160	$160
FNA revenues		**0.5**	**0.8**	**1.0**	**1.3**	**3.6**	**1.5**	**1.7**	**1.7**	**2.0**	**6.9**	**10.3**	**18.7**	**26.5**	**34.3**
Gene Expression Classifer (GEC)															
GEC reflexed from cytopathology (#)		589	898	987	1,395	3,869	1,506	1,739	1,738	2,014	6,998	11,995	19,975	27,010	34,912
Indeterminate rate %		15%	16%	14%	15%	15%	14%	14%	14%	14%	14%	15%	15%	15%	15%
Additional GECs (#)		195	299	280	484	1,258	459	697	700	660	2,516	4,250	6,375	8,000	8,400
US Academic		195	299	280	484	1,258	459	697	700	660	2,516	3,380	4,500	4,800	4,800
International		0	0	0	0	0	0	0	0	0	0	870	1,875	3,200	3,600
Additional GECs as % of Total Samples		4.7%	5.1%	3.8%	4.9%	4.6%	4.1%	5.3%	5.3%	4.4%	4.8%	5.0%	4.6%	4.3%	3.5%
Total GEC volume (#)		**784**	**1,197**	**1,267**	**1,879**	**5,127**	**1,965**	**2,436**	**2,438**	**2,674**	**9,513**	**16,245**	**26,350**	**35,010**	**43,312**
Total GEC as a % of FNAs		20.0%	21.3%	18.0%	20.2%	19.8%	18.3%	19.6%	19.6%	18.6%	19.0%	20.3%	20.1%	19.4%	18.6%
GEC no result (#)		82	126	133	197	538	206	256	256	281	999	1,625	2,503	3,501	4,331
GEC no result Rate %		11%	11%	11%	11%	11%	11%	11%	11%	11%	11%	10%	10%	10%	10%
Total billable GECs		702	1,071	1,134	1,682	4,589	1,759	2,180	2,182	2,393	8,514	14,621	23,847	31,509	38,981
GEC ASP ($)		$1,319	$1,592	$1,985	$1,887	$1,755	$1,649	$1,538	$1,778	$1,800	$1,696	$2,100	$2,400	$2,600	$2,600
GEC revenues		**0.9**	**1.7**	**2.3**	**3.2**	**8.1**	**2.9**	**3.4**	**3.9**	**4.3**	**14.4**	**30.7**	**57.2**	**81.9**	**101.3**
Total Afirma revenues		**1.5**	**2.5**	**3.2**	**4.5**	**11.6**	**4.4**	**5.1**	**5.6**	**6.3**	**21.3**	**41.0**	**76.0**	**108.4**	**135.6**
Average revenue per FNA ($)		374	442	457	479	449	408	408	451	437	427	513	578	602	583
Total Mkt Share (incl Non TPC GEC)		3.5%	5.1%	6.0%	8.5%	5.8%	8.7%	10.8%	10.8%	11.9%	10.6%	15.2%	22.8%	28.7%	34.5%

Source: Company Data, Morgan Stanley Research estimates

Exhibit 22

Balance Sheet

	2011A	2012A				2012A	2013E				2013E	2014E	2015E	2016E	2017E
		Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4					
Assets															
Current Assets															
Cash & cash equivalents	7.6	13.5	9.0	3.4	14.0	14.0	7.1	20.7	15.426	70.8	70.8	45.1	28.3	29.1	42.0
Accounts receivable, net of allowance	0.2	0.5	0.6	0.6	0.6	0.6	0.5	1.0	0.714	1.1	1.1	1.3	1.6	2.3	2.8
Supplies inventory	0.3	0.3	0.7	0.8	1.0	1.0	0.7	0.8	1.392	0.9	0.9	1.2	1.4	1.9	2.1
Prepaid expenses and other current asse	0.5	0.4	0.6	0.8	0.7	0.7	0.9	1.4	2.938	3.3	3.3	1.5	1.5	2.1	2.5
Restricted cash	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.000	0.0	0.0	0.0	0.0	0.0	0.0
Total current assets	8.6	14.8	10.9	5.6	16.4	16.4	9.1	23.8	20.470	76.2	76.2	49.1	32.8	35.3	49.4
Property and equipment, net	1.7	1.6	1.9	2.2	2.4	2.4	2.8	3.0	2.826	2.7	2.7	3.2	4.2	5.8	6.8
Restricted cash	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.118	0.1	0.1	0.1	0.1	0.1	0.1
Other assets	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.157	0.2	0.2	0.2	0.2	0.2	0.2
Total assets	**10.5**	**16.6**	**13.0**	**8.0**	**19.1**	**19.1**	**12.2**	**27.2**	**23.571**	**79.1**	**79.1**	**52.6**	**37.3**	**41.3**	**56.5**
Liabilities															
Current liabilities															
Accounts payable	0.5	0.9	1.2	1.4	1.9	1.9	1.7	1.9	5.604	2.3	2.3	3.4	4.5	6.1	7.0
Accrued liabilities	1.3	1.6	2.7	2.9	4.0	4.0	3.2	5.4	4.416	5.4	5.4	7.0	8.2	8.3	10.0
Deferred up-front fee	0.0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.500	2.5	2.5	2.5	2.5	2.5	2.5
Preferred stock liability	0.0	0.0	0.0	0.0	0.6	0.6	1.6	0.0	0.000	0.0	0.0	0.0	0.0	0.0	0.0
Total current liabilities	1.9	5.0	6.4	6.8	9.0	9.0	8.9	9.8	12.520	10.2	10.2	13.0	15.2	16.9	19.5
Long-term debt, net of discount	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	4.863	4.6	4.6	4.7	2.8	0.8	0.0
Deferred rent, net of current portion	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.3	0.250	0.4	0.4	0.5	0.6	0.5	0.5
Preferred stock warrant liability	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.252	0.2	0.2	0.2	0.1	0.1	0.0
Deferred Genzyme co-promotion fee, net of	0.0	7.0	6.4	5.7	5.1	5.1	4.5	3.9	3.239	2.6	2.6	0.1	0.0	0.0	0.0
Total liabilities	**1.9**	**12.0**	**12.8**	**12.6**	**14.2**	**14.2**	**13.5**	**18.9**	**21.124**	**18.1**	**18.1**	**18.4**	**18.7**	**18.2**	**20.0**
Equity															
Convertible preferred stock, $0.001 par valu	49.3	49.3	49.3	49.3	63.4	63.4	63.4	79.0	79.022	0.0	0.0	0.0	0.0	0.0	0.0
Common stock, $.001 par value	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.001	0.0	0.0	0.0	0.0	0.0	0.0
Additional paid-in capital	0.7	1.0	1.2	1.4	1.6	1.6	2.3	2.7	3.181	147.2	147.2	147.2	147.2	147.2	147.2
Accumulated deficit	(41.4)	(45.7)	(50.3)	(55.2)	(60.1)	(60.1)	(67.0)	(73.5)	(79.757)	(86.2)	(86.2)	(113.0)	(128.6)	(124.1)	(110.8)
Total stockholders' deficit	**(40.8)**	**(44.7)**	**(49.1)**	**(53.9)**	**(58.5)**	**(58.5)**	**(64.7)**	**(70.8)**	**(76.575)**	**61.0**	**61.0**	**34.2**	**18.6**	**23.1**	**36.4**
Total liabilities & equity	**10.5**	**16.6**	**13.0**	**8.0**	**19.1**	**19.1**	**12.2**	**27.2**	**23.571**	**79.1**	**79.1**	**52.6**	**37.3**	**41.3**	**56.5**

Leverage Metrics															
Total Debt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	4.9	4.6	4.6	4.7	2.8	0.8	0.0
Cash	7.6	13.5	9.0	3.4	14.0	14.0	7.1	20.7	15.4	70.8	70.8	45.1	28.3	29.1	42.0
Net Debt	(7.6)	(13.5)	(9.0)	(3.4)	(14.0)	(14.0)	(7.1)	(15.9)	(10.6)	(66.3)	(66.3)	(40.5)	(25.5)	(28.3)	(42.0)
Net Debt / EBITDA	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	-6.2x	-3.1x

Source: Company Data, Morgan Stanley Research estimates

Exhibit 23

Cash Flow Statement

	2011A	2012A				2012A	2013E				2013E	2014E	2015E	2016E	2017E
		Q1	Q2	Q3	Q4		Q1	Q2	Q3	Q4					
Net Income / (Loss)	(14.4)	(4.2)	(4.6)	(4.9)	(4.8)	(18.6)	(6.9)	(6.5)	(6.3)	(6.8)	(26.5)	(28.5)	(17.9)	1.8	10.2
Depreciation & Amortization	0.6	0.2	0.2	0.2	0.2	0.7	0.2	0.2	0.3	0.3	1.0	1.2	1.6	2.3	3.0
Bad debt expense	0.2	0.0	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0
Genzyme co-promotion fee amortization	0.0	(0.5)	(0.6)	(0.6)	(0.6)	(2.4)	(0.6)	(0.6)	(0.6)	(0.6)	(2.5)	(2.5)	(0.1)	0.0	0.0
Stock based compensation	0.5	0.1	0.2	0.2	0.2	0.7	0.2	0.3	0.4	0.4	1.3	1.7	2.3	2.7	3.1
Equity based compensation	0.2	0.1	0.1	0.1	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortization of debt discount and issuan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest on debt balloon payment	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Change in value of preferred stock liabilit	(0.7)	0.0	0.0	0.0	(0.3)	(0.3)	1.0	1.1	0.1	(0.0)	2.1	(0.1)	(0.1)	(0.0)	(0.1)
Δ in Operating Working Capital	0.1	10.4	0.8	(0.0)	1.2	12.3	(0.6)	1.5	0.8	(2.4)	(0.7)	4.1	1.9	(0.1)	1.4
Accounts receivable	(0.5)	(0.4)	(0.1)	(0.0)	(0.1)	(0.6)	0.0	(0.6)	0.2	(0.4)	(0.7)	(0.2)	(0.3)	(0.6)	(0.5)
Supplies inventory	(0.1)	(0.0)	(0.4)	(0.0)	(0.3)	(0.8)	0.3	(0.0)	(0.6)	0.4	0.1	(0.2)	(0.2)	(0.5)	(0.3)
Prepaid expenses & current other	(0.1)	0.1	(0.2)	(0.2)	0.1	(0.2)	(0.1)	(0.5)	(1.5)	(0.4)	(2.6)	1.8	0.1	(0.6)	(0.5)
Other assets	0.2	(0.0)	0.0	(0.0)	(0.1)	(0.1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Accounts payable	0.1	0.3	0.4	0.1	0.5	1.3	(0.2)	0.3	3.8	(3.3)	0.5	1.2	1.1	1.5	0.9
Accrued liabilities & deferred rent	0.5	0.4	1.0	0.2	1.0	2.6	(0.6)	2.3	(1.0)	1.2	1.9	1.6	1.2	0.0	1.8
Deferred Genzyme co-promotion fee	0.0	10.0	0.0	0.0	0.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net cash from operating activities	**(13.5)**	**6.0**	**(4.0)**	**(5.1)**	**(4.0)**	**(7.2)**	**(6.6)**	**(4.0)**	**(5.2)**	**(9.2)**	**(25.0)**	**(24.0)**	**(12.3)**	**6.6**	**17.7**
Capital expenditures	(0.3)	(0.1)	(0.5)	(0.4)	(0.4)	(1.5)	(0.6)	(0.4)	(0.1)	(0.1)	(1.2)	(1.7)	(2.7)	(3.8)	(4.1)
Restricted cash	(0.1)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Net cash from investing activities	**(0.3)**	**(0.1)**	**(0.5)**	**(0.4)**	**(0.4)**	**(1.5)**	**(0.5)**	**(0.4)**	**(0.1)**	**(0.1)**	**(1.1)**	**(1.7)**	**(2.7)**	**(3.8)**	**(4.1)**
Issuance of long-term debt, net of issuan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.9	0.0	(0.3)	4.6	0.1	(1.9)	(2.0)	(0.8)
Issuance of convertible preferred stock, r	18.6	0.0	0.0	0.0	15.0	15.0	0.0	13.0	(0.1)	(79.0)	(66.1)	0.0	0.0	0.0	0.0
Issuance of common stock	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	144.0	144.0	0.0	0.0	0.0	0.0
Repayments for repurchase of restricted	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Proceeds from the exercise of common s	0.0	0.1	0.0	0.0	0.0	0.1	0.2	0.1	0.2	0.0	0.5	0.0	0.0	0.0	0.0
Net cash from financing activities	**18.6**	**0.1**	**0.0**	**0.0**	**15.0**	**15.1**	**0.2**	**17.9**	**0.1**	**64.7**	**83.0**	**0.1**	**(1.9)**	**(2.0)**	**(0.8)**
Change in Cash	4.8	6.0	(4.6)	(5.5)	10.6	6.4	(6.9)	13.6	(5.3)	55.4	56.8	(25.7)	(16.8)	0.8	12.9
Beginning Cash		7.6	13.5	9.0	3.4	7.6	14.0	7.1	20.7	15.4	14.0	70.8	45.1	28.3	29.1
Ending Cash	7.6	13.5	9.0	3.4	14.0	14.0	7.1	20.7	15.4	70.8	70.8	45.1	28.3	29.1	42.0

Source: Company Data, Morgan Stanley Research estimates

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Industry Coverage:Life Science Tools & Diagnostics

Company (Ticker)	Rating (as of)	Price* (11/25/2013)
Daniel Brennan, CFA		
Veracyte Inc (VCYT.O)	O (11/26/2013)	$11.36
Affymetrix (AFFX.O)	E (05/09/2012)	$7.97
Agilent Technologies, Inc. (A.N)	O (03/05/2012)	$53.11
Bruker Corp (BRKR.O)	O (11/06/2013)	$19.31
Illumina Inc. (ILMN.O)	E (03/05/2012)	$98.35
Life Technologies Corp. (LIFE.O)	E (03/05/2012)	$75.69
Mettler Toledo International Inc (MTD.N)	O (09/06/2013)	$250.22
NanoString Technologies Inc (NSTG.O)	O (07/22/2013)	$12.03
Pacific Biosciences of California, Inc. (PACB.O)	U (07/30/2012)	$3.92
PerkinElmer Inc. (PKI.N)	O (01/03/2013)	$37.84
Qiagen NV (QGEN.O)	E (09/06/2013)	$23.43
Sigma-Aldrich Corp (SIAL.O)	U (10/17/2013)	$87.18
Thermo Fisher Scientific Inc. (TMO.N)	O (03/05/2012)	$101.99
Waters Corp. (WAT.N)	E (01/03/2013)	$100.66

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* Historical prices are not split adjusted.