

Roka Bioscience (ROKA)

Initiating Coverage with an OUTPERFORM Rating & \$15 PT
- Best-in-Class Food Safety Solution Poised to Eat the Competition - a When-Not-If Story

- Initiating coverage of ROKA with an OUTPERFORM and \$15 PT. Disruptive technology for food safety testing. ROKA offers a highly automated, accurate and flexible solution for detection of salmonella, listeria and e.coli in food.
- Atlas represents an improvement over existing platforms, driving better economics for food processors and 3rd party labs. With better automation driving less user intervention and faster time to result enabled by a more sensitive/specific chemistry, Atlas can save food processors significant labor and other costs.
- Encouraged by recent top-tier customer wins and an inflection in Atlas utilization. ROKA has recently inked contracts with large poultry producers Tyson and Cargill, plus well-known produce players which represent key anchor accounts that validate the platform and are driving inflection in test sales. 2Q14 annualized consumable utilization likely grew 50% versus 1Q14 levels due to rapid implementation from key accounts.
- Product pipeline is progressing, with potential to capture market share in the broader food safety market. The non-amplified test menu is slated for 2015, helping to drive penetration in lower-end labs. The mini-Atlas system is in the beta phase and will allow the company to enter lower-volume labs in 2016.
- Potential large beef contracts and lab wins could drive meaningful upside to our estimates. The US beef opportunity is large, untapped and concentrated, with the four top players likely running 8 MM tests worth >\$50 MM annually.
- Low technical risk tees up a "when-not-if" story. We arrive at our 12-month \$15 price target through EV/sales valuation framework where we assume a 10x 2016E EV/sales multiple with no cash and roughly 19 MM shares outstanding discounted back at 20%. Versus early-stage life science tools, diagnostics and med tech group, ROKA is trading at a premium on a 2015 EV/sales multiple basis (7.5 vs. 3.7). We believe the hyper growth phase, lower technical risk and regulatory risk plus the scarcity value in food safety testing and strength of management helps justify the multiple.

August 10, 2014

Price
\$10.61

Rating
OUTPERFORM

12-Month Price Target
\$15

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Company Information

Shares Outst (M)	18
Market Cap (M)	\$187
52-Wk Range	\$9.15 - \$13
Cash/sh	2
Enterprise Value	155
LT Debt/Cap	-0.011
2015 EV/Sales	7 x
Book Value/sh	2.2

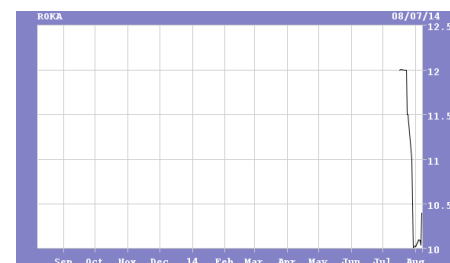
Company Description

ROKA is an early stage diagnostics company focused on pathogen detection for food safety. The company's Atlas system and assay technologies represent a more accurate and more highly automated platform versus the competition.

FYE Dec	2013A	2014E			2015E		
REV (M)	ACTUAL	CURR.	PREV.	CONS.	CURR.	PREV.	CONS.
Q1 Mar	\$0.3A	\$0.8A		N/A	\$3.6E		N/A
Q2 Jun	\$0.7A	\$1.4E		N/AE	\$4.6E		N/A
Q3 Sep	\$0.6A	\$2.1E		N/AE	\$5.6E		N/A
Q4 Dec	\$0.7A	\$2.8E		N/AE	\$6.7E		N/A
Year*	\$2.2A	\$7.1E		N/AE	\$20.5E		N/A
Change	1979%	225%			189%		
	2013A	2014E			2015E		
EPS	ACTUAL	CURR.	PREV.	CONS.	CURR.	PREV.	CONS.
Q1 Mar	\$0.00A	(\$0.45)A		N/A	(\$0.40)E		N/A
Q2 Jun	\$0.00A	(\$0.45)E		N/A	(\$0.39)E		N/A
Q3 Sep	\$0.00A	(\$0.49)E		N/A	(\$0.37)E		N/A
Q4 Dec	\$0.00A	(\$0.45)E		N/A	(\$0.35)E		N/A
Year*	(\$0.30)A	(\$1.84)E		N/A	(\$1.51)E		N/A
P/E	NM	NM			NM		
Change	-96%	523%			-18%		

Consensus estimates are from Thomson First Call.

* Numbers may not add up due to rounding.



Source: Thomson Reuters

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Investment Thesis

We are initiating coverage on Roka Bioscience (ROKA) with an OUTPERFORM rating and a \$15 12-month price target. ROKA is a pure-play diagnostics company focused on the food safety industry. The company operates a razor/razorblade business model where it sells equipment and testing consumables directly to food processing plants and third-party laboratories. ROKA's Atlas platform represents a more highly automated, accurate and flexible platform for detection of pathogens (e.coli, listeria and salmonella), which we believe will over time take share from incumbent players and become the gold standard. The commercial story remains early and the company is beginning to see positive inflection with higher-quality and higher-volume customers. With low technical risk, ROKA is primarily an execution story and the company's strong management team, with a prior record of success, inspires confidence. We believe ROKA represents an attractive play on the automation secular theme and the growing global need for better food safety. Near-term catalysts include earnings results and potential contract wins with large food processing players.

We arrive at our 12-month \$15 price target through EV/sales valuation framework where we assume a 10x 2017E EV/sales multiple with no cash and roughly 19 MM shares outstanding discounted back at 20%. Versus early-stage life science tools, diagnostics and med tech group, ROKA is trading at a premium on a 2015 EV/sales multiple basis (7.5 vs. 3.7). We believe the hyper growth phase, lower technical risk and regulatory risk plus the scarcity value in food safety testing and strength of management helps justify the multiple.

Risks to the attainment of our price target include: ROKA continues to burn cash and the path to profitability is murky. We estimate that the company has at least two years' worth of cash and may need to raise additional funds at some point in the next two years. ROKA has execution risk as sales cycles in the food testing business tend to be long and unpredictable. Additionally, the period of time between placement of an Atlas instrument and full implementation can take several months. In addition, the adoption curve is more difficult to predict relative to other diagnostics companies, given the lack of close comparables.

Company Description

Headquartered in Warren, New Jersey, Roka Bioscience is a developer of systems and chemistry for the food safety market. More specifically the company's products are geared for highly automated detection of common food pathogens (listeria, e.coli, and salmonella). The company was founded in 2009 as a spin-out of Gen-Probe, with exclusive license to the company's core technology for industrial applications. Through the spin-out process, the company retained 18 development personnel from Gen-Probe. The company completed its IPO on July 17, 2014, during which it sold 5 MM shares at \$12/shr. The company's Atlas platform and chemistry were launched in late 2012. ROKA's pathogen detection solution utilizes very high throughput automation, combined with highly sensitive detection chemistry based on target mediated amplification (TMA) to detect trace levels of bacterial contamination in various food types. The company's key product today is the Atlas instrument, along with detection kits/tests which we believe represent a more accurate and more highly automated solution versus competitors. ROKA's customers are primarily large food processors and third-party testing laboratories. ROKA operates a razor/razor blade business model by which the systems are usually placed through reagent rental agreements where the cost and service of the Atlas instruments is recovered through contracts that stipulate testing minimums and higher-price-per-test levels. The company launched its Listeria genus, Salmonella, Listeria monocytogenes and E.coli tests on January 2012, March 2012, November 2013 and January 2014, respectively, and Atlas commercialization in general remains in the very early innings of adoption. ROKA is developing additional products, namely the mini-Atlas targeted for smaller labs and food producers, which the company expects to launch in 2016. Near term, ROKA is planning on launching non-amplified tests in 2015 to address the lower end of the market and projects are underway to develop offerings for chemical contamination and indicator organism testing which represent large opportunities. As of 6/30/2014, ROKA employed 121 full-time employees with 44 focused on sales, marketing and commercial operation plus 28 people in research and development. The company sells its products directly.

Value Proposition

We believe the main advantage of the Atlas platform is the need for less user intervention, which drives better economics for the lab. Additionally, the greater sensitivity of TMA technology allows for more accurate detection of pathogens across more food types and substantially improves turnaround time, which drives better economics for food producers and third-party labs.

Figure 1: Key Catalysts

Catalyst/Milestones	Timing
Earnings (system placements and test utilization metrics)	Quarterly
Large Beef Contract	2014
Additional Large Lab Wins	2014
Listeria Non-Amplified Test Launch	2015
Min-Atlas Prototype Completion	2015
Min-Atlas Commercial Launch	2016
Potential multiplexed allergen testing	2017+

Source: Company data, Wedbush Securities

Food Safety Market

Food safety represents a well-established and growing global market worth roughly \$2 B annually growing in the mid-single digits y/y organically. The total market can be broken into three key segments which are pathogen testing, indicator organism testing and chemical contamination testing. Pathogen testing, which represents roughly 37% of the total market, refers to testing for the presence of common bacterial contaminants such as listeria, salmonella and e.coli. Indicator organism testing, which accounts for roughly 35% of the total food safety market, refers to testing for yeasts, mold, coliforms that can indicate hygienic quality of a product or spoilage. Indicator organism testing is important because some food can tolerate a certain level of contamination (i.e., most chicken has some salmonella, but above a certain level, the product may only be suitable for cooked products). The remaining 29% of the market is made up of chemical contamination testing, which involves testing for allergens, mycotoxins and drug residues.

ROKA is currently focused on the pathogen testing market, but over time, we believe the company could enter the indicator organism testing and chemical contamination testing markets as well. Salmonella tests account for about 50% of the global pathogen testing volume followed by listeria (43%), e.coli (5%) and other (2%). The company estimates that there were 167 MM pathogen tests performed in 2013 globally and North America accounted for roughly 40% of the global volume.

The North American pathogen testing market can be divided further by testing method. Roughly 39% of North American testing is with molecular methods, which are a direct measure of DNA or RNA associated with the pathogen of interest. Molecular is widely considered to be the most rapid accurate method of detection. Roughly 38% of North American testing occurs via immunochemical techniques which involve detection with a specific antibody/antigen binding and optical detection which tends to be slower than molecular and more prone to false positive and negative results. Culture, which involves detection via incubation in a selective enrichment media until visible confirmation is achieved, still accounts for 23% of tests in North America despite the slow turnaround (3-5 days) and labor intensiveness. Culture is still widely considered to be the most accurate method. Data suggests that molecular-based pathogen testing is growing around 10% annually in North America, while pathogen testing as a whole is growing around 6% y/y.

In North America, roughly 2/3rds of the pathogen testing volume occurs within the food processing companies, while 1/3rd takes place within third-party contract labs. There appears to be a growing trend towards outsourcing with third-party laboratories. There is believed to be around 500 good-sized contract testing lab locations in North America and roughly 1,500 medium to large food processors globally, which we believe are good candidates for an Atlas instrument. We believe there are likely an additional 3,500 smaller food processors that could be customers for the mini-Atlas.

Several factors are driving growth in the pathogen testing market. Globally, the greater industrialization of the food supply and improving health and safety standards are helping to drive good growth in the pathogen testing market. Consumer groups are increasingly demanding greater food safety. Additionally, the economic impact of food recalls in recent years is causing many of the food processors to adopt more rigorous pathogen testing. Lastly, in the United States, the Food safety modernization act (FMSA) is expected to drive an increase in testing by mandating comprehensive, prevention-based controls which go into effect in 4Q15.

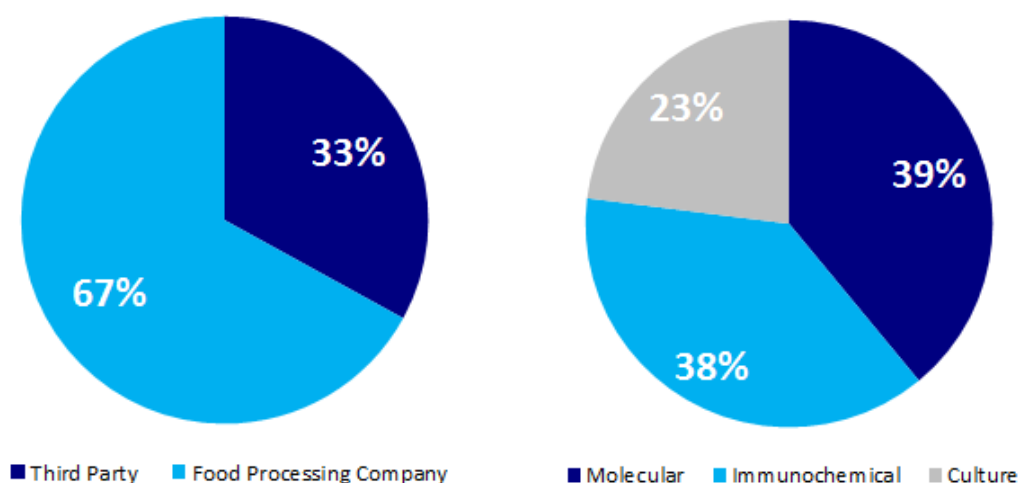
Figure 2: Food Testing Opportunity

Market Breakdown	Size (\$MM)	Growth y/y
Global Pathogen Testing	750	6%
North America Pathogen Testing	300	6%
North America Pathogen Testing (via Molecular)	117	10%
North America Pathogen Testing (immunochemical)	114	<6%
North America Pathogen Testing (via Molecular)	69	<6%
North America Indicator and Allergen Testing	851	~5%

Source: Company data, Wedbush Securities, Inc.

Certifications

In the US, food processors, commercial labs and regulators (i.e., USDA and FDA) expect commercial test methods to be validated by an independent third party. The key characteristics of validation are whether the test is fit for detection of the pathogen and food type (matrix) it is designed for, equivalency to the reference method (chosen by FDA or USDA) and robustness. The independent third party in the US is the American Association of Analytical Chemists (AOAC). The AOAC has an independent arm known as the AOAC research institute that oversees validation of commercial tests. All of ROKA's commercially available tests have been through AOAC certification and validation. The validation data is peer reviewed by a panel of experts before it is published in the AOAC journal.

Figure 3: North American Testing Location & Method Breakdown


Source: Company data, Wedbush Securities, Inc.

Figure 4: Recent High-Profile US Outbreaks



Source: Company data, Wedbush Securities, Inc.

The ROKA Solution

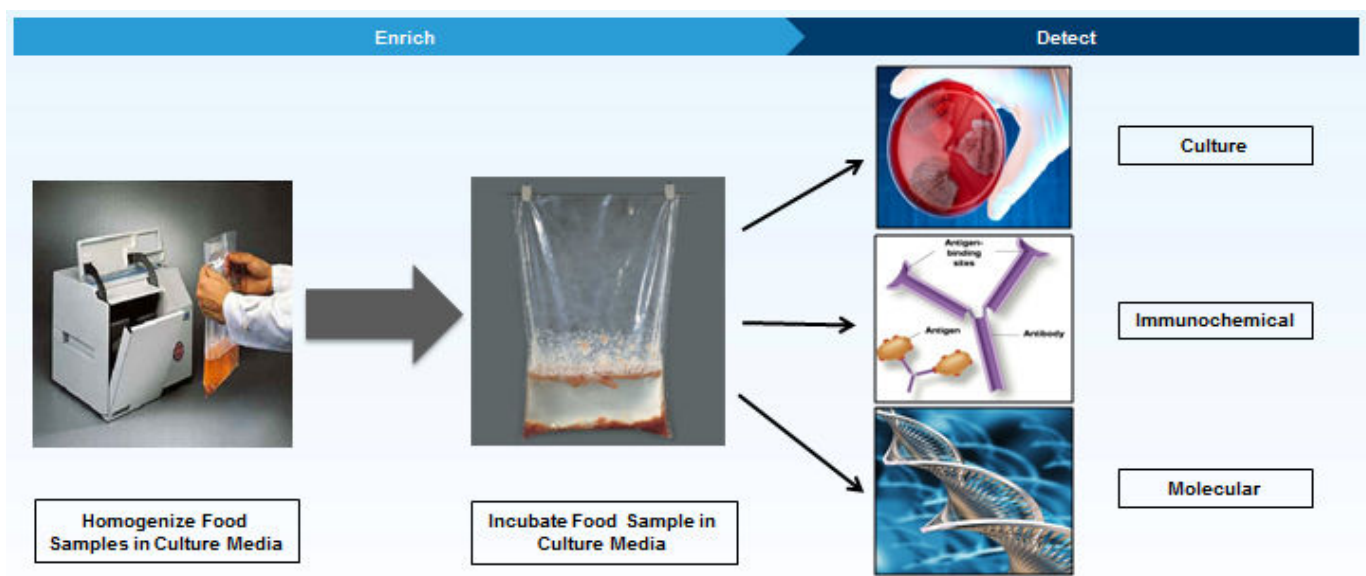
The initial steps required in foodborne pathogen testing are consistent regardless of the final detection method a lab decides to use. The process begins in a food processing plant where a small portion (25 to 375 grams) of the food is acquired and sent to a lab on premises or off site. In the lab, the sample is typically homogenized (ground up) to more effectively release all of the pathogens potentially in the sample. Following homogenization, samples are incubated in culture media in a process known as enrichment. Enrichment represents a way to grow more copies of bacteria in the sample, which helps for better final detection because often times pathogenic bacteria is present in quantities too small for reliable measurement with the available technologies. Following incubation, which typically is a 24-hour process, labs begin the detection phase, a complicated process that typically applies culture, immunochemical or molecular methods to detect the pathogen of interest. The different detection methods range between 1-day and 6-day turnaround and can cost \$2-\$10 per sample, with varying requirements for user intervention depending on the types of equipment used. ROKA's flagship Atlas instrument is capable of running roughly 300 tests per day and generating roughly \$700,000 in consumables annually. The list price for Atlas is \$150k, however, most placements are on a reagent rental basis.

Automation

The key advantage of ROKA's Atlas system is its higher level of automation versus competitors. Greater automation allows more samples to be processed with less user intervention, which facilitates lower labor costs. The Atlas system leverages several years and tens of millions in R&D investment by Gen-Probe, which went into development of the instrument. Gen-Probe was well known for its automation expertise, which was a critical element of the company's great success in blood screening and clinic diagnostics.

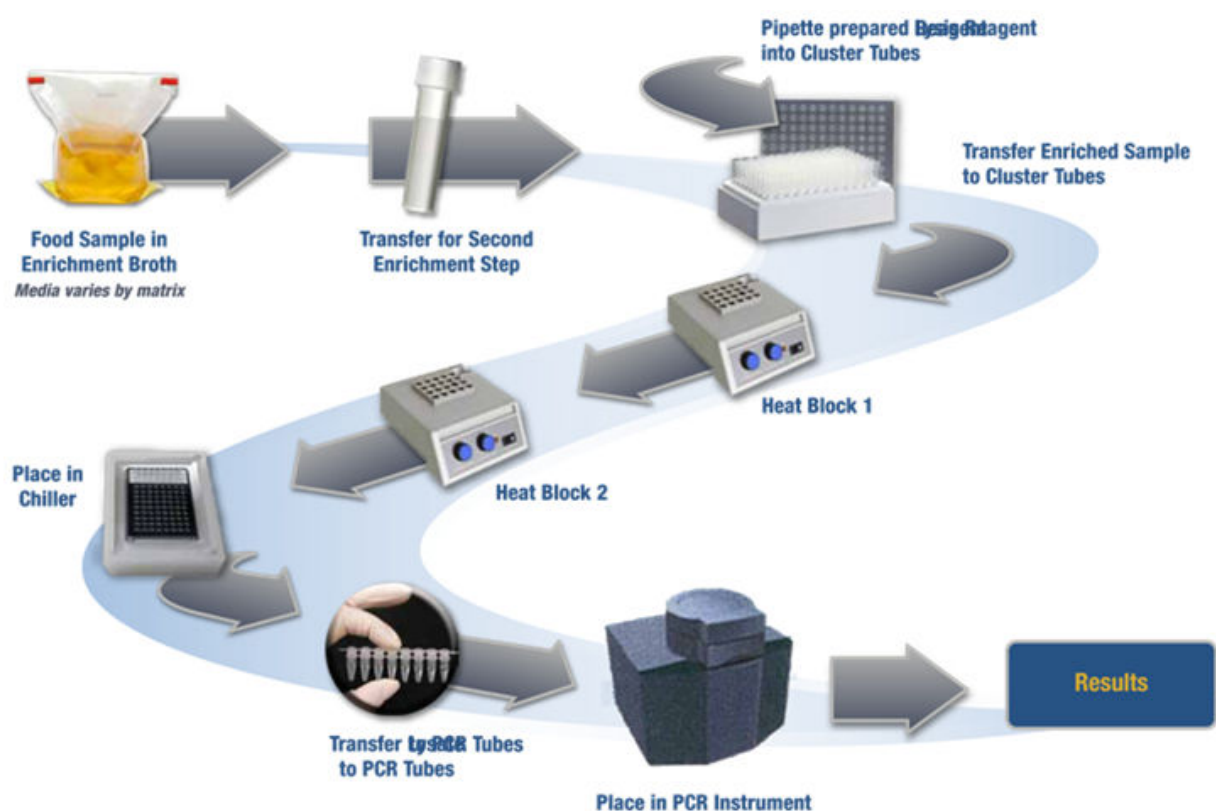
Competing platforms often require 30 or more manual steps between enrichment and detection steps. The Atlas requires three steps following enrichment, which involve placement of the sample into a ROKA transfer tube, loading onto the Atlas system and initiation of the fully-automated walk-away platform. With the combination of faster turnaround time and enhanced sensitivity, customers are able to save 10-17 hours per batch tested in listeria and salmonella testing versus competing technologies.

Figure 5: Key Steps in Pathogen Detection



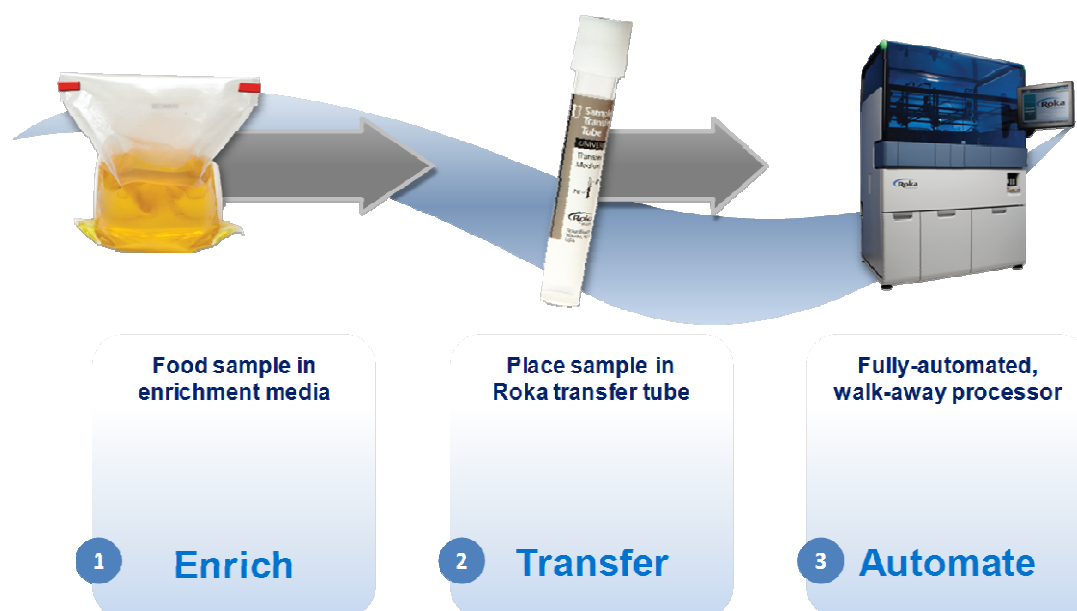
Source: Roka Bioscience, Wedbush Securities

Figure 6: Typical Labour-Intensive Workflow



Source: Roka Bioscience, Wedbush Securities

Figure 7: Atlas Workflow



Source: Roka Bioscience, Wedbush Securities

Chemistry

The detection chemistry within ROKA's test kits is an important differentiator of the technology. The detection chemistry leverages Gen-Probe's proprietary target capture and TMA (transcription mediated amplification) technology which has been proven over roughly 20 years of commercial success in the human clinical diagnostics industry. TMA helps to improve both speed and accuracy versus competitors. TMA targets the ribosomal RNA associated with the bacterial pathogens that has a greater abundance (1,000x to 10,000x), which facilitates better accuracy. The target capture step uses magnetic beads to purify and concentrate the sample, which helps to eliminate inhibitors in the final detection reaction. TMA also involves an isothermal (one temperature) amplification step which produces over 1 billion rRNA copies in 30 minutes, which helps improve turnaround time. Additionally, each detection reaction involves two different probes, enabling an internal control per test which facilitates better accuracy. With more accurate detection of bacterial pathogens, ROKA is able to address a greater number of food matrices (i.e., vegetables, poultry, grains, dairy etc.), reduces the time required during enrichments and reduces liability overall. The faster turnaround time facilitated by both the improved automation and more accurate chemistry helps support shorter product release times leading to longer shelf life of perishable products, which drives better economics.

Figure 8: Performance Benefits

Benefit	Automation	Chemistry
Sensitivity/ Specificity	Closed system with minimal human manipulation improves results	<ul style="list-style-type: none"> • TMA targets rRNA a more abundant target vs DNA • 3 levels of specificity with 5 sequence specific probes
Speed	Fully-automated walk away drives more tests & faster turn around	Isothermal amplification reduces amplification time

Source: Roka Bioscience, Wedbush Securities

Figure 9: Economic Benefits

Automation	Chemistry
Greater test volume reduces operating costs	Accuracy drives lower liability of false negatives
Reduces direct labor and operator costs	Lower operational costs from false positives
Faster turnaround time drives longer shelf life	Consolidating tests on one platform reduces labor costs

Source: Roka Bioscience, Wedbush Securities

Performance

Data generated internally by the company in conjunction with a customer demonstrated meaningful improvement versus standard molecular pathogen detection methods (i.e., PCR). A 580-sample study across 15 different food matrix types (using culture as the gold standard) showed 99% sensitivity and 100% specificity for salmonella and listeria versus 82% sensitivity and 97% specificity for PCR technology. It is difficult to find true apples-to-apples comparison data because most players do not publish performance data. Some academic groups publish these types of studies, but it is still early days for these informative third-party studies as it pertains to ROKA. We are not aware of similar comparisons by competitors that show inferior ROKA performance in the most important food sample types. For E.coli O157:H7 testing, ROKA is roughly 4 hours slower per batch than PCR methods because they are unable to use rRNA as the target.

Figure 10: Atlas compared to PCR (for Listeria and Salmonella)

Atlas	Culture Positive	Culture Negative	PCR	Culture Positive	Culture Negative
Assay Positive	196	0	Assay Positive	146	13
Assay Negative	2	382	Assay Negative	33	388

False Positives Atlas = 0%
False Negatives Atlas = 1%

False Positives PCR = 3.2%
False Negatives PCR = 18.4%

Source: Roka Bioscience, Wedbush Securities

Commercial Strategy

ROKA employs a direct sales model where it is focusing on poultry, meat, produce processors and commercial 3rd party lab customers. Commercial labs represent roughly 1/3rd of the market and are growing faster than the overall market (10% y/y vs 6% y/y). We believe the commercial lab space represents a good fit for ROKA's products due to the higher volumes and immediate benefits recognized by those labs. The company is also leveraging a "push-pull" strategy where uptake from large food processing customers is able to drive increased penetration as they carry weight in dictating preferred methods to the local commercial labs.

ROKA's commercial operation has roughly 44 people across sales, marketing and government affairs. Of the 44, ROKA has 15 sales representatives and six field applications engineers. Comparable food safety players (i.e., Biomerieux) have 25-30 reps, based on our checks, so we believe ROKA over time could expand the sales force by around ten people. The company employs a two tiered sales team consisting of strategic account managers and the territory sales team. The strategic accounts personnel focus on an assigned list of very large accounts that have multiple locations. As an example, Siliker Laboratories represents a strategic account with roughly 10 different laboratories operating in the US. The territory sales team focuses on regional geographies and supports the strategic account team at the local level.

The value proposition to the customers is that despite a ~\$2 per test premium (\$7-\$9 vs \$5-\$7) versus existing molecular testing methods, due to the savings from labor and turnaround time improvement, the net savings is \$1.50-\$3.00 per test, based on ROKA's internal estimates and food processing industry consultants' analysis.

Sales Cycle

The sales process starts with a rigorous qualification process followed by a demonstration. Customers can see the instrument at tradeshows and can visit the company's New Jersey and San Diego facilities for hands-on demonstration. The sales process is lengthy and involved. The decision is a significant one for customers and the food testing industry tend to be slow moving and very conservative. On a positive note, once platforms are established in routine use, customers tend to be sticky. The company is targeting customers averaging north of 100 tests per day.

Implementation

After a contract is signed, it typically takes two to six months for Atlas to go live with commercial samples. The rate limiting step before live use is that customers typically conduct side-by-side comparison's to current methods, verification studies to demonstrate consistency with AOAC data and potential validation studies for new sample types not in the AOAC data. ROKA works closely with customers during the implementation process and is focusing aggressively on shortening the time to implementation.

Commercial Achievements

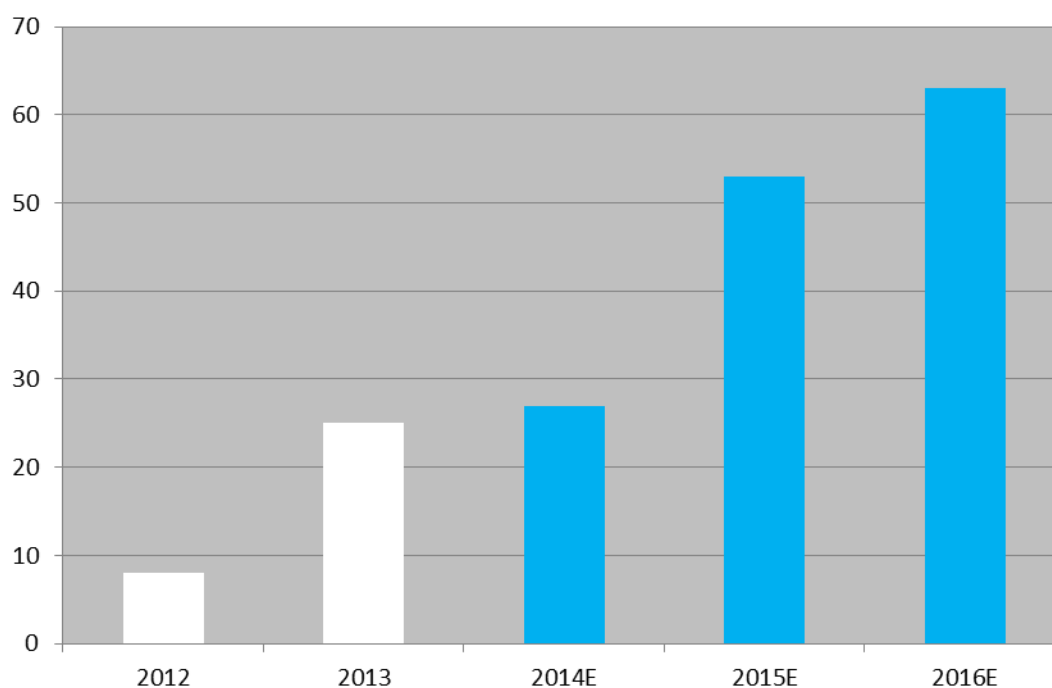
As a reminder, the company launched Atlas in early 2012 with AOAC certification of its Listeria genus and Salmonella tests. Listeria monocytogenes and E.coli became available on November 2013 and January 2014, respectively. The company placed eight systems in 2012, 17 in 2013 and appears roughly on track to place for 25-30 systems in 2014. The company appears to be experiencing a positive inflection in system placements with high-quality accounts. The company placed 10 systems with top customers in 1Q14 and appears to have placed roughly 13 Atlas instruments with high-end customers in 1H14.

Annual consumable pull-through per instrument is benefiting strongly from the improving traction with high-end customers. In 2013, average consumables sales per instrument was \$78,000 and as of the end of 1Q14 it was \$96,000 on an annualized basis. We believe the positive instrument utilization trend continued solidly in 2Q14 due to rapid implementation by Primus Labs in the produce area and other large customers. We suspect that annualized revenue per instrument grew around 50% q/q in 2Q14 to around \$150,000. ROKA's four largest customers (representing 18 instruments), which each accounted for more than 10% of sales, generated \$683,000 (~82% of sales) representing roughly \$148,000 in annualized consumable sales per instrument in 1Q14.

We believe the company has done good job in the last six months focusing on capturing the large accounts in many of its five key submarkets. ROKA has converted eight of its top ten accounts targeted at the beginning of 2014. In the poultry segment, ROKA recently signed contracts with Tyson Poultry as well as Cargill Poultry. We believe the progress in poultry is having a positive impact in the beef area where ROKA is making headway with three of the top four beef companies that effectively control the US beef market. We are optimistic about the potential for a contract with a large beef producer to occur by year end. In the produce area, ROKA landed a large contract with Primus Labs and recently won a large account with Chiquita bananas. The Chiquita win is an important validation of the technology as they had previously been using a cheaper immunochemical-based detection platform. Additionally, the company

is getting buy-in in the produce segment from Yum brands and Burger King, which are potentially large influencers on the testing market.

Figure 11: Instrument Placements Ramp



Source: Roka Bioscience, Wedbush Securities

Figure 12: Large Account Wins

Customer	Category	Food Type
Tyson	Producer	Poultry
Cargill	Producer	Poultry
Chiquita	Producer	Produce
Primus Labs	3rd Party Lab	Produce
Yum Brands	Produce	Produce
Siliker	3rd Party Lab	Produce

Source: Roka Bioscience, Wedbush Securities

Pipeline

ROKA is developing a smaller scale system called mini-Atlas which is designed to address the need of smaller food processing plants running fewer than 75 tests per day. Based on comments from food processing industry consultants, there are 3500 smaller food processing plants versus the 1500 midsize and large labs where Atlas is targeted. The technology is progressing solidly, with a few beta units expected to be completed by the end of 2014, prototype system availability in 2015 and commercial launch in 2016. The company has already signed a mini-Atlas development and supply agreement with an unknown Japanese company. Mini-Atlas is designed to produce 8 test results in roughly 2 hours and the test chemistry is expected to be directly compatible with the Atlas system.

The company is working on introducing non-amplified molecular tests which can be run on the Atlas platform as well. The non-amplified tests will be developed at lower price points and marketed as an alternative to immunochemical tests. These non-amplified tests will likely require a longer up-front enrichment step to achieve comparable sensitivity to the amplified Atlas tests. The key selling point for the non-amplified Atlas tests is the flexibility that it allows labs that are running amplified tests and immunochemical tests to consolidate more testing onto one platform. ROKA is expecting to launch its first non-amplified test in 2015, which will be for *Listeria*. As a reminder, the non-amplified test segment in the US represents another \$115 MM annual opportunity. Additionally the company is working on potential applications in chemical contamination testing, which represents a ~\$600 MM annual global opportunity.

Management

Paul Thomas, Founder & Chief Executive Officer

Mr. Thomas joined the company in 2009 as founding Chief Executive Officer. Prior to this, Mr. Thomas served as Chairman, CEO and President of LifeCell Corporation, a highly successful wound care company which was acquired by Kinetic Concepts in 2008. Prior to his tenure with LifeCell, Mr. Thomas held various senior positions during a 15 year tenure with Ohmeda. Mr. Thomas holds a B.S. in Chemistry from St. Michael's College and an M.B.A from Columbia.

Steven Sobieski, Chief Financial Officer

Mr. Sobieski joined the company in 2009 as Senior Vice President and Chief Financial Officer. Prior to this, Mr. Sobieski served as Sr. Vice President and CFO of LifeCell Corporation from 2000 to 2009. Prior to his tenure with LifeCell, Mr. Sobieski was VP of Finance with Osteotech and from 1981 to 1991 he was with Coopers & Lybrand. Mr. Sobieski is a CPA holder, received a BS in Business Administration from Monmouth University and an MBA from Rutgers University.

Wally Narajowski, Senior Vice President, General Manager

Mr. Narajowski joined ROKA in 2009 as Senior Vice President and General Manager of the San Diego operation. Prior to this, Mr. Narajowski served as President and CEO of Pathway diagnostics, a biomarker development and testing company, which was sold to Quest Diagnostics in 2008. Prior to his tenure with Pathway, Mr. Narajowski served as vice president, general manager of Focus Diagnostics and prior to that spent many years with Abbott Laboratories. Mr. Narajowski holds a B.S. in electrical engineering from Illinois Institute of Technology and an M.S. in Bioengineering from the University of Utah.

A.J. McCardell, Senior Vice President, Commercial Operations

Ms. McCardell joined ROKA in 2010 as Senior Vice President, Commercial Operations. Prior to this, Ms. McCardell served as Global Director of Commercial Development at Lonza Bioscience focused on rapid testing from 2005-2010. Prior to her tenure with Lonza, Ms. McCardell spent time as Business Unit Director of food safety testing with Strategic Diagnostics and helped develop and launch the Bax system with Dupont. Ms. McCardell holds a B.S. in Biology from Lebanon Valley College and received an M.S. in Soil Microbiology from the University of Delaware.

Financial Projections

Revenue Model

We are expecting the company's recent momentum with high-end accounts to continue near term with meaningful high-quality system placements. We are modeling total system placements of 27, 53 and 63 in 2014, 2015 and 2016, respectively. While we are only modeling 27 Atlas placements in 2014 vs. 25 in 2013, we would point out that the vast majority of these (~90%) systems we estimate to be placed with high-volume customers that implement the systems quickly. We don't believe these placement forecast are too optimistic as they assume roughly 4%, 8% and 11% global market share in the large-volume food safety labs in years ending 2014, 2015 and 2016, respectively.

We are encouraged by the 1H14 trend in annual consumable utilization per instrument in the recent large contract wins. Driven by rapid implementation within Primus Labs and other third-party contract laboratories, the average utilization per instrument appears to have increased on the order of 50% in 2Q14. As a reminder, a good sized customer tests 100 samples per day and can generate around \$225,000 in annual consumable pull-through and the highest-end customers test over 250 samples per day. We are assuming healthy and consistent improvement in test utilization driving average per system sales of \$136k, \$194k and \$207k in 2014, 2015 and 2016, respectively. Our 2014E forecast of \$136k represents a 74% increase versus \$78k generated per system in 2013.

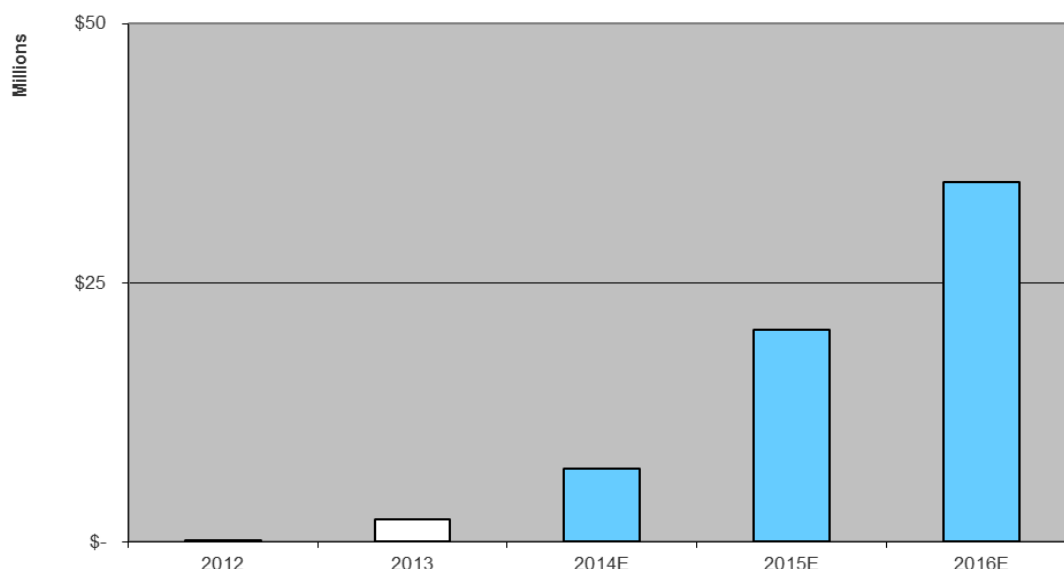
Potential Upside to Revenue Estimates

We believe the primary sources of meaningful upside to our 2014, 2015 and 2016 revenue estimates and consensus revenue estimates would be meaningful traction within the beef and deeper penetration in 3rd party labs. We believe there are several potential large contracts worth several \$MM each on an annualized basis within the beef industry and ample room for greater standardization on Atlas within existing and new third-party lab customers. We believe a single contract with one of the top four US beef producers could be worth several \$MM in annual revenue for ROKA, once implemented. Additionally, any traction in the EU and Asia would likely represent upside versus our model.

Figure 13: Revenue Model (\$000s)

Revenue Build & Assumptions		2013	1Q14	2Q14E	3Q14E	4Q14E	2014E	2015E	2016E
Revenue (\$)		2,183	828	1,369	2,097	2,797	7,091	20,473	34,756
System Placements		25	9	3	8	7	27	53	63
Average Annualized Utilization/System		78,000	97,546	148,026	186,400	215,115	136,382	194,978	206,882
Average Price/Test (\$)		9	8.4	8.32	8.22	8.23	8.26	8.14	8.05
Δ (Y/Y)									
Revenue (\$)		NA	NA	NA	NA	NA	225%	189%	70%
System Placements		NA	NA	NA	NA	NA	8%	96%	19%
Average Annualized Utilization/System		NA	NA	NA	NA	NA	75%	43%	6%
Average Price/Test (\$)		NA	NA	NA	NA	NA	-8%	-1%	-1%

Source: Company data, Wedbush Securities, Inc.

Figure 14: Annual Revenue Projections


Source: Company data, Wedbush Securities, Inc.

Gross Margins and Operating Expenses

ROKA remains in the very early innings of revenue ramp and as a result, instrument capital equipment costs and overhead is weighing on gross margins. Over time we would expect the company to make progress towards achieving gross margins on par with similar razor/razorblade diagnostics businesses which operate in the 50-70% range. Given the lower price points in food safety, we believe margins will likely be near the lower end of this range. We think the lower gross margin profile will be offset over time by the lower commercial infrastructure needed to service the market and lower R&D required to develop new products due to the lower regulations and the investment previously made by Gen-Probe in development of the underlying technology backbone. We expect R&D expenses to be in the neighborhood of \$8 to \$9 MM annually for the next two years. We are modeling an increase in sales and marketing from \$10 to \$12 MM in 2014 as the company invests more in developing the market, but due a sufficiently sized sales force and commercial team we do not expect significant expansion beyond these levels near term. We expect a slight increase in G&A on an absolute basis as the business scales, but expect it to grow substantially slower than the top-line growth rate. (See Figure 15.)

Figure 15: Margin Analysis

% of Sales	2013	1Q14	2Q14E	3Q14E	4Q14E	2014E	2015E	2016E
Gross Margins	-202%	-53%	-18%	-5%	4%	-9%	18%	28%
Research and development	347%	222%	164%	110%	83%	123%	39%	20%
General and administrative	333%	272%	173%	114%	87%	133%	51%	31%
Sales and Marketing	468%	337%	228%	145%	97%	165%	58%	36%
Total operating expenses	1155%	837%	566%	402%	292%	441%	152%	89%
EBIT	-1358%	-890%	-584%	-407%	-288%	-451%	-134%	-61%
Tax rate	0%	0%	0%	0%	0%	0%	0%	0%
Net income	-1355%	-1010%	-605%	-427%	-298%	-479%	-137%	-63%
Free Cash Flow	-1493%	-901%	-534%	-356%	-223%	-401%	-124%	-50%

Source: Company data, Wedbush Securities, Inc.

Earnings Estimates

We believe we are taking a realistic approach to our model in terms of system placements and utilization and well as operating expenses. Consensus estimates are not yet available for the company.

Figure 16: Wedbush Estimates

	2Q:14		2014		2015		2016	
	REV (m)	EPS	REV (m)	EPS	REV (m)	EPS	REV (m)	EPS
Wedbush	1.4	(\$0.45)	7.1	(\$1.84)	20	(\$1.51)	35	(\$1.16)

Source: Wedbush Securities, Inc.

Balance Sheet, Financing Events & Cash Flows

ROKA exited 1Q14 with roughly \$33 MM in cash and \$10 MM in debt on its balance sheet. We estimate the company will burn around \$27 MM, \$25 MM and \$21 MM in 2014, 2015 and 2016. In the absence of a few large beef contracts, we believe the company will likely need to raise funds in the next 24 months.

The company raised roughly \$56 MM on July 17, 2014 through an initial public offering (IPO) where the company sold 5 MM shares at \$12/share. Existing shareholders participated in 25% of the transaction. Following the IPO, Orbimed, New Enterprise, TPG, Fidelity, Aisling and company executives own roughly 20%, 19%, 18%, 7%, 7% and 7% of the company, respectively. The IPO share lock-up expires on January 17th.

Valuation & Price Target

We arrive at our 12-month \$15 price target through EV/sales valuation framework where we assume a 10x 2017E EV/sales multiple with no cash and roughly 19 MM shares outstanding discounted back at 20%. Versus early-stage life science tools, diagnostics and med tech group, ROKA is trading at a premium on a 2015 EV/sales multiple basis (7.5 vs. 3.7). We believe the hyper growth phase, lower technical risk and regulatory risk plus the scarcity value in food safety testing and strength of management helps justify the multiple.

Risks to the attainment of our price target include:

ROKA continues to burn cash and the path to profitability is murky. We estimate that the company has at least two years' worth of cash on hand and may need to raise additional funds at some point in the future. ROKA has real execution risk as sales cycles in the food testing business tend to be long and unpredictable. Additionally, the period of time between placement of and Atlas instrument and full implementation can take several months. In addition, the adoption curve is more difficult to predict relative to other diagnostics companies given the lack of close comparables.

Comparables

Figure 17: Small-Cap Diagnostics & Tools Comps

Company	Ticker	Price (\$) 8/8/2014	FYE	Shares Out. (MM)	Market Cap. (\$MM)	FY 2014		FY 2015		FY 2016		2014 EV/ Rev.	2015 EV/ Rev.	2016 EV/ Rev.	Rating
						Projected Rev. (\$MM)	Market Cap./ Rev.	Projected Rev. (\$MM)	Market Cap./ Rev.	Projected Rev. (\$MM)	Market Cap./ Rev.				
Cepheid	CPHD	38.99	Dec	70	2,719	442	6.2 X	530	5.1 X	636	4.3 X	4.9 X	4.9 X	4.1 X	O
Cerus	CERS	3.66	Dec	73	265	38	7.0 X	57	4.7 X	99	2.7 X	5.7 X	3.8 X	2.2 X	O
Exact Sciences	EXAS	16.68	Dec	83	1,382	2	863.6 X	76	18.2 X	190	7.3 X	NA	17.5 X	7.0 X	N
Foundation Medicine	FMI	23.59	Dec	28	665	60	11.1 X	111	6.0 X	178	3.7 X	10.5 X	5.6 X	3.5 X	O
Genomic Health	GHDX	26.33	Dec	31	823	288	2.9 X	323	2.5 X	363	2.3 X	2.7 X	2.4 X	2.1 X	NR
GenMark	GNMK	11.30	Dec	42	470	28	16.8 X	42	11.2 X	68	6.9 X	15.7 X	10.5 X	6.5 X	NR
Meridian	VIVO	20.27	Sep	42	842	201	4.2 X	216	3.9 X	222	3.8 X	4.0 X	3.7 X	3.6 X	N
Myriad Genetics	MYGN	37.61	Jun	75	2,814	630	4.5 X	730	3.9 X	813	3.5 X	3.7 X	3.2 X	2.9 X	NR
Nanosphere	NSPH	0.91	Dec	77	70	20	3.5 X	36	1.9 X	46	1.5 X	1.0 X	0.6 X	NA	NR
Nanostring	NSTG	12.08	Dec	18	218	47	4.6 X	71	3.1 X	104	2.1 X	3.4 X	2.2 X	1.5 X	NR
Neogenomics	NEO	5.17	Dec	50	257	73	3.5 X	85	3.0 X	95	2.7 X	3.5 X	3.0 X	2.7 X	NR
Orasure	OSUR	7.29	Dec	56	407	105	3.9 X	120	3.4 X	133	3.1 X	3.3 X	2.9 X	2.6 X	NR
Ovascience	OVAS	10.00	Dec	24	242	1	NA	20	12.1 X	62	3.9 X	NA	9.4 X	3.0 X	O
Oxford Immunotec	OXFD	13.56	Dec	18	238	49	4.9 X	67	3.6 X	86	2.8 X	4.1 X	3.0 X	2.4 X	NR
Response Genetics	RGDX	0.69	Dec	38	26	27	1.0 X	27	1.0 X	NA	NA	NA	NA	NA	NR
Roka Bioscience	ROKA	10.61	Dec	18	187	7	26.7 X	20	9.4 X	35	5.4 X	NA	7.7 X	4.4 X	O
Qiagen	QGEN	23.46	Dec	234	5,487	1,352	4.1 X	1,463	3.8 X	1,544	3.6 X	4.2 X	3.8 X	3.6 X	N
Quidel	QDEL	24.95	Dec	34	854	190	4.5 X	220	3.9 X	234	3.6 X	4.3 X	3.7 X	3.5 X	N
Sequenom	SQNM	3.90	Dec	116	454	164	2.8 X	213	2.1 X	275	1.7 X	3.1 X	2.4 X	1.8 X	O
Veracyte	VCYT	14.58	Dec	21	309	40	7.7 X	72	4.3 X	116	2.7 X	7.7 X	4.3 X	2.7 X	NR
Vermillion	VRML	1.96	Dec	36	70	8	8.8 X	9	7.8 X	NA	NA	7.5 X	6.7 X	NA	NR
Molecular Dx Subgroup Median							4.8 X		NA		NA	3.1 X	3.5 X	3.2 X	
Group Mean							6.6 X		5.4 X		3.6 X	4.7 X	4.9 X	3.2 X	
Group Median							4.5 X		3.9 X		3.5 X	4.0 X	3.7 X	2.9 X	

*O = OUTPERFORM, N = NEUTRAL, U = UNDERPERFORM

Blue highlight = coverage by Wedbush Securities

Source: Company data, Wedbush Securities, Inc.

Company	Ticker	Rating	Price Target	Current Price
Sequenom	SQNM	OUTPERFORM	\$5	\$3.9
Exact Sciences	EXAS	NEUTRAL	\$14	\$16.7
Cerus	CERS	OUTPERFORM	\$6.5	\$3.7
Meridian Bioscience	VIVO	NEUTRAL	\$23	\$20
Quidel	QDEL	NEUTRAL	\$20	\$26
Cepheid	CPHD	OUTPERFORM	\$55	\$38.7
Qiagen	QGEN	NEUTRAL	\$20	\$23.5
OvaScience	OVAS	OUTPERFORM	\$20	\$11
Foundation Medicine	FMI	OUTPERFORM	\$50	\$24

Figure 18: Income Statement

	2012	2013	1Q14	2Q14E	3Q14E	4Q14E	2014E	1Q15E	2Q15E	3Q15E	4Q15E	2015E	2016E
Product Revenue	105	2,183	828	1,369	2,097	2,797	7,091	3,632	4,584	5,585	6,672	20,473	34,756
Total Revenues	105	2,183	828	1,369	2,097	2,797	7,091	3,632	4,584	5,585	6,672	20,473	34,756
Cost of revenues	3,186	6,601	1,265	1,611	2,192	2,695	7,763	3,335	3,949	4,525	5,038	16,846	25,013
Gross profit	(3,081)	(4,418)	(437)	(242)	(95)	101	(673)	297	635	1,060	1,634	3,626	9,743
Gross Margins	-2934.3%	-202.4%	-52.7%	-17.7%	-4.5%	3.6%	-9.5%	8.2%	13.9%	19.0%	24.5%	17.7%	28.0%
Research and development	9,584	7,568	1,842	2,250	2,300	2,325	8,717	2,000	2,000	2,000	2,000	8,000	6,800
General and administrative	16,052	7,264	2,255	2,375	2,400	2,425	9,455	2,600	2,600	2,600	2,600	10,400	10,800
Selling and Marketing	0	10,218	2,793	3,125	3,050	2,725	11,693	2,724	2,980	3,072	3,136	11,911	12,476
Amortization of intangibles	168	168	42	688	688	688	1,418	200	200	200	200	800	800
Total operating expenses	25,804	25,218	6,932	7,750	8,438	8,163	31,283	7,524	7,780	7,872	7,936	31,111	30,876
Operating Income	(28,885)	(29,636)	(7,369)	(7,992)	(8,533)	(8,062)	(31,956)	(7,227)	(7,144)	(6,811)	(6,302)	(27,485)	(21,133)
Interest income	(140)	(2,980)	(389)	(200)	(338)	(200)	(1,127)	(133)	(148)	(165)	(181)	(628)	(859)
Other	0	(53)	(603)	(88)	(84)	(81)	(856)	0	0	0	0	0	0
Income before taxes	(29,025)	(32,669)	(8,361)	(8,280)	(8,955)	(8,343)	(33,939)	(7,360)	(7,293)	(6,977)	(6,483)	(28,113)	(21,992)
Provision for income taxes	0	(3,092)	6	0	0	0	6	0	0	0	0	0	0
Tax Rate													
Net income	(29,025)	(29,577)	(8,367)	(8,280)	(8,955)	(8,343)	(33,945)	(7,360)	(7,293)	(6,977)	(6,483)	(28,113)	(21,992)
Accretion of convertible preferred stock	(286)	-	-	-	-	-	0	0	0	0	0	0	0
Net Income	(29,311)	(29,577)	(8,367)	(8,280)	(8,955)	(8,343)	(33,945)	(7,360)	(7,293)	(6,977)	(6,483)	(28,113)	(21,992)
GAAP EPS - Basic	(\$8.05)	(\$0.30)	(\$0.48)	(\$0.47)	(\$0.51)	(\$0.47)	(\$1.92)	(\$0.41)	(\$0.41)	(\$0.39)	(\$0.36)	(\$1.57)	(\$1.21)
GAAP EPS - Diluted	(\$8.05)	(\$0.30)	(\$0.45)	(\$0.45)	(\$0.49)	(\$0.45)	(\$1.84)	(\$0.40)	(\$0.39)	(\$0.37)	(\$0.35)	(\$1.51)	(\$1.16)
Non-GAAP EPS - Diluted	(\$8.05)	(\$0.30)	(\$0.45)	(\$0.45)	(\$0.49)	(\$0.45)	(\$1.84)	(\$0.40)	(\$0.39)	(\$0.37)	(\$0.35)	(\$1.51)	(\$1.16)
Weighted average shares - basic	3,639	100,121	17,600	17,600	17,653	17,706	17,640	17,768	17,830	17,892	17,955	17,861	18,113
Weighted average shares - diluted	3,639	100,121	18,400	18,400	18,455	18,511	18,441	18,575	18,640	18,706	18,771	18,673	18,936
Cash and Equivalents	17,314	32,728	32,699	78,440	69,351	65,198	65,198	59,029	52,234	45,787	39,196	39,196	20,872
Debt	0	9,725	19,725	19,725	19,725	19,725	19,725	19,725	19,725	19,725	19,725	19,725	19,725
Net Cash	17,314	23,003	12,974	58,715	49,626	45,473	45,473	39,304	32,509	26,062	19,471	19,471	1,147
Net Cash/share	NA	NA	0.7	3.2	2.7	2.5	2.5	2.1	1.7	1.4	1.0	1.0	0.1
NOLs	(46,779)	(55,145)	(63,425)	(72,380)	(80,723)	(80,723)	(80,723)	(88,083)	(95,376)	(102,353)	(108,836)	(108,836)	(130,827)
% of Sales	2012	2013	1Q14	2Q14E	3Q14E	4Q14E	2014E	1Q15E	2Q15E	3Q15E	4Q15E	2015E	2016E
Gross Margins	-2934%	-202%	-53%	-18%	-5%	4%	-9%	8%	14%	19%	24%	18%	28%
Research and development	9128%	347%	222%	164%	110%	83%	123%	55%	44%	36%	30%	39%	20%
General and administrative	15288%	333%	272%	173%	114%	87%	133%	72%	57%	47%	39%	51%	31%
Sales and Marketing	0%	468%	337%	228%	145%	97%	165%	75%	65%	55%	47%	58%	36%
Total operating expenses	24575%	1155%	837%	566%	402%	292%	441%	207%	170%	141%	119%	152%	89%
EBIT	-27510%	-1358%	-890%	-584%	-407%	-288%	-451%	-199%	-156%	-122%	-94%	-134%	-61%
Tax rate	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Net income	-27915%	-1355%	-1010%	-605%	-427%	-298%	-479%	-203%	-159%	-125%	-97%	-137%	-63%
Free Cash Flow	-27918%	-1493%	-901%	-534%	-356%	-223%	-401%	-187%	-145%	-111%	-84%	-124%	-50%
y/y Δ	2012	2013	1Q14	2Q14E	3Q14E	4Q14E	2014E	1Q15E	2Q15E	3Q15E	4Q15E	2015E	2016E
Total Revenues	NA	1979%	211%	104%	276%	306%	225%	339%	235%	166%	139%	189%	70%
Cost of revenues	NA	107%	-32%	87%	5%	52%	18%	164%	145%	106%	87%	117%	48%
Gross Margins	NA	-93%	-91%	-38%	-98%	-102%	-95%	-116%	-178%	-518%	576%	-287%	58%
Sales and Marketing	NA	-21%	5%	16%	8%	34%	15%	9%	-11%	-13%	-14%	-8%	-15%
General and administrative	NA	-55%	23%	42%	39%	19%	30%	15%	9%	8%	7%	10%	4%
Research and development	NA	NA	15%	20%	16%	7%	14%	-2%	-5%	1%	15%	2%	5%
Total operating expenses	NA	-2%	15%	24%	29%	28%	24%	9%	0%	-7%	-3%	-1%	-1%
EBIT	NA	3%	-4%	24%	6%	8%	8%	-2%	-11%	-20%	-22%	-14%	-23%
Tax rate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Net income	NA	1%	20%	40%	-8%	21%	15%	-12%	-12%	-22%	-22%	-17%	-22%

Source: Company data, Wedbush Securities, Inc.

Figure 19: Balance Sheet

	2012	2013	Q1	Q2E	Q3E	Q4E	2014E	2015E	2016E
Current assets:									
Total Cash and Cash Equivalents	17,314	32,728	32,699	78,440	69,351	65,198	65,198	39,196	20,872
Accounts Receivable	30	277	515	342	2,097	1,398	1,398	3,336	5,212
Inventory	4,066	3,879	4,180	4,264	3,000	233	233	556	869
Prepaid expenses and other Current Assets	1,088	5,572	3,031	3,031	3,031	3,000	3,000	3,000	3,000
Total current assets	22,498	42,456	40,425	86,077	77,479	69,829	69,829	46,088	29,952
Property, Plant and Equipment	13,783	14,510	13,860	13,928	14,328	14,468	14,468	15,492	17,230
Intangible assets/Goodwill	1,512	1,344	1,662	2,000	2,000	200	200	(6,800)	(15,600)
Restricted cash and other non-current assets	624	804	333	1,000	300	800	800	2,400	3,047
Total assets	38,417	59,114	56,280	103,006	94,107	85,297	85,297	57,180	34,629
LIABILITIES AND STOCKHOLDERS' EQUITY									
Current liabilities:									
Accounts Payable and accrued expenses	3,333	1,226	993	1,267	1,324	857	857	852	846
Deferred revenue and Other Current Liabilities	1,733	7,639	12,259	11,800	11,800	11,800	11,800	11,800	11,800
Total current liabilities	5,066	8,865	13,252	13,067	13,124	12,657	12,657	12,652	12,646
Long-term liabilities:									
Long Term Debt	0	212	383	553	553	553	553	553	0
Other long term liabilities	2,542	3,584	4,395	4,395	4,395	4,395	4,395	4,395	4,395
Total liabilities	7,608	12,661	18,030	18,015	18,072	17,605	17,605	17,600	17,041
Stockholders' equity:									
Preferred Stock	100,537	127,797	127,961	127,961	127,961	127,961	127,961	127,961	127,961
Common Stock, APIC, RE	(69,728)	(81,344)	(89,711)	(42,971)	(51,926)	(60,269)	(60,269)	(88,381)	(110,373)
Total liabilities and stockholders' equity	38,417	59,114	56,280	103,006	94,107	85,297	85,297	57,180	34,629

Source: Company data, Wedbush Securities, Inc.

Figure 20: Cash Flow Statement

	2012	2013	Q1E	Q2E	Q3E	Q4E	2014E	2015E	2016E
Cash Flows from Operating Activities:									
Net (loss) income	(23,246)	(29,577)	(8,367)	(8,280)	(8,955)	(8,343)	(33,945)	(28,113)	(21,992)
Depreciation	2,045	2,437	661	670	1,200	1,800	4,331	7,000	8,800
change in FV of investor rights obligation	(4,996)	2,595	836	0	0	0	836	0	0
Loss on disposal/provision for inventory	2,197	1,118	167	0	0	0	167	0	0
Stock-based compensation expense	739	696	261	500	500	500	1,761	2,400	2,800
Deferred taxes	0	(3,127)	0	0	0	0	0	0	0
non-cash interest expense/impairment/deferred taxes	186	457	268	(1,180)	(1,000)	(1,000)	(2,912)	(4,000)	(4,000)
Change in working capital	(4,699)	(2,050)	1,993	(96)	(434)	3,029	4,493	(2,265)	(2,195)
Net cash provided by operating activities	(27,774)	(27,451)	(4,181)	(8,385)	(8,689)	(4,013)	(25,269)	(24,978)	(16,586)
Cash Flows from Investing Activities:									
Purchase of property and equipment	(5,929)	(3,410)	12	(68)	(400)	(140)	(596)	(1,024)	(1,738)
increase in restricted cash		0	0	(1,005)	0	0	(1,005)	0	0
Net cash used in investing activities	(5,929)	(3,410)	12	(1,073)	(400)	(140)	(1,601)	(1,024)	(1,738)
Cash Flows from Financing Activities:									
Proceeds from Issuance of Restricted Stock	0	4,672	0	0	0	0	0	0	0
proceeds from issuance of preferred stock	20,000	41,783	(15)	0	0	0	(15)	0	0
proceeds from issuance of common stock	0	20	5,000	60,000	0	0	65,000	0	0
costs of issuance/other	4	(199)	(845)	(4,800)	0	0	(5,645)	0	0
Net cash provided by financing activities	20,004	46,276	4,140	55,200	0	0	59,340	0	0
Net increase (decrease) in cash and cash equivalents	(13,699)	15,415	(29)	45,741	(9,089)	(4,153)	32,470	(26,001)	(18,324)
Cash and cash equivalents, beginning of period	31,013	17,314	32,728	32,699	78,440	69,351	32,728	65,198	39,196
Cash and cash equivalents, end of period	17,314	32,729	32,699	78,440	69,351	65,198	65,198	39,196	20,872

Source: Company data, Wedbush Securities, Inc.

Analyst Biography

Zarak Khurshid is a senior equity research analyst covering the Medical Diagnostics and Life Science Tools sectors. Prior to joining Wedbush in January 2010, Mr. Khurshid was Vice President and senior equity research analyst with Caris & Company where he covered the Medical diagnostics and Life Sciences Tools sectors from 2006 to 2010. Mr. Khurshid's aggressive risk/reward focused investment style is supported by data points from a diverse network of contacts from industry, hospitals, clinical labs, and academia. Mr. Khurshid was ranked #1 in the Life Science Tools and Services sectors and #4 on Wall Street for earnings accuracy in 2012 by *Starmine*. Prior to his start on Wall Street with Pacific Growth Equities in 2004, Mr. Khurshid was a Research Associate with Cytokinetics and an Associate Bioengineer with Aurora Biosciences. Mr. Khurshid received a BS in Bioengineering and a BA in Economics from the University of California, San Diego.

Analyst Certification

I, Zarak Khurshid, certify that the views expressed in this report accurately reflect my personal opinion and that I have not and will not, directly or indirectly, receive compensation or other payments in connection with my specific recommendations or views contained in this report.

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Investment Rating System:

Outperform: Expect the total return of the stock to outperform relative to the median total return of the analyst's (or the analyst's team) coverage universe over the next 6-12 months.

Neutral: Expect the total return of the stock to perform in-line with the median total return of the analyst's (or the analyst's team) coverage universe over the next 6-12 months.

Underperform: Expect the total return of the stock to underperform relative to the median total return of the analyst's (or the analyst's team) coverage universe over the next 6-12 months.

The Investment Ratings are based on the expected performance of a stock (based on anticipated total return to price target) relative to the other stocks in the analyst's coverage universe (or the analyst's team coverage).*

Rating Distribution (as of July 30, 2014)	Investment Banking Relationships (as of June 30, 2014)
Outperform: 54%	Outperform: 25%
Neutral: 42%	Neutral: 1%
Underperform: 4%	Underperform: 0%

The Distribution of Ratings is required by FINRA rules; however, WS' stock ratings of Outperform, Neutral, and Underperform most closely conform to Buy, Hold, and Sell, respectively. Please note, however, the definitions are not the same as WS' stock ratings are on a relative basis.

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Wedbush Equity Research Disclosures as of August 10, 2014

Company	Disclosure
Roka Bioscience	1,3,5,7
Cepheid	1
Cerus Corp.	1
Exact Sciences Corp.	1
Foundation Medicine	1
Meridian Bioscience	1
OvaScience	1
Qiagen N.V.	1
Quidel Corp.	1
Sequenom	1

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* WS changed its rating system from (Strong Buy/Buy/Hold/Sell) to (Outperform/ Neutral/Underperform) on July 14, 2009.

Please access the attached hyperlink for WS' Coverage Universe: <http://www.wedbush.com/services/cmg/equities-division/research/equity-research> Applicable disclosure information is also available upon request by contacting Ellen Kang in the Research Department at (213) 688-4529, by email to ellen.kang@wedbush.com, or the Business Conduct Department at (213) 688-8090. You may also submit a written request to the following: Business Conduct Department, 1000 Wilshire Blvd., Los Angeles, CA 90017.

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