Avalanche Biotechnologies (AAVL)



Q1 EPS Takeaways; All Eyes on AVA-101 Phase IIa Data in Mid-15

What's Incremental

AAVL reported Q1 revenue of \$0.2M, related to amortization of an upfront payment from collaborator REGN. Q1 EPS of \$(0.38) was in line with consensus at \$(0.40) and higher than STRH of \$(0.43). The company ended Q1/15 with \$290M in cash, which we expect will be sufficient to fund operations through 2017. Timelines for lead gene therapy product AVA-101 in wet AMD are intact, and we look towards a number of presentations at the ASGCT conference (previewed here). We recommend investors own AAVL into the mid-15 AVA-101 data readout.

The key catalyst for AAVL is AVA-101 Phase IIa data readout in mid-15, 36month Phase I data to support durability. The key investor question relates to read through of impressive Phase I results for the gene therapy AVA-101 in wet AMD, to the ongoing Phase IIa. However, baseline characteristics of Phase Ila study patients are suggestive of milder disease (and more representative of the broad wet AMD population), compared to the Phase I trial. A summary of patient demographics for this study was presented by AAVL at the R&D Day in March, and we look towards a more detailed poster presentation at the American Society of Gene and Cell Therapy (ASGCT), on May 14th. Thus, it is likely that AVA-101 activity in the Phase IIa study results in a more modest clinical benefit compared to the Phase I trial. Another investor question relates to persistence of AVA-101 activity (post a New England Journal of Medicine article for a different gene therapy showed declining effect in out years, in a rare genetic eye disorder - discussed here). AAVL announced that 36-month follow-up data from the Phase I trial are expected in mid-15 (topline) with a presentation at a medical meeting in H2/15. We look towards continued benefit with AVA-101, with respect to fewer rescue Lucentis injections vs. control within a one year period and maintained vision acuity.

Pipeline updates reflect intact timelines for lead program AVA-101. 12-month results from the Phase IIa study of AVA-101 in wet AMD are expected in mid-15. A U.S. Phase IIb study of AVA-101 is slated to begin in H2/15, to take place mainly in the U.S. We look towards 1) presentation of baseline Phase IIa characteristics at the ASGCT conference, 2) Phase IIa AVA-101 results in wet AMD in mid-15, 3) potential REGN opt-in for AVA-101, 4) 36-month follow-up data from the Phase I study in mid-15, 5) launch of a Phase IIb U.S. study of AVA-101 in wet AMD.

Changes to model post Q1 EPS. AAVL reported \$5.6M in R&D expense, lower than our \$7.55M estimate. Q1 SG&A expense was \$4.1M, higher than STRH at \$3.4M. The company ended the quarter with \$290.1M in cash, expected to support operations into 2017. Given the current R&D spend trajectory and the company's expected cash runway guidance, we are adjusting

Salveen Richter, CFA 212-319-3728 salveen.richter@suntrust.com Raluca Pancratov, Ph.D. 212-303-4178 raluca.pancratov@suntrust.com

Buy

Price Target: \$60.00 *Prior:* \$60.00

Price (May 12, 2015)	\$33.88
52-Wk Range	\$60.08-\$22.60
Market Cap (\$M)	\$854
ADTV	311,000
Shares Out (M)	25.2
Short Interest Ratio/% Of Float	10.4%
TR to Target	77.1%

Cash Per Share	\$8.02
Cash And Equivalents (\$M)	\$290.1

	2014A	2015	iΕ	2016	E					
		Curr.	Prior	Curr.	Prior					
EPS Adj	usted									
1Q	(\$0.45)	(\$0.38)A	(\$0.43)							
2Q	(\$2.27)	(\$0.50)	(\$0.54)							
3Q	(\$0.50)	(\$0.62)	(\$0.66)							
4Q	(\$0.46)	(\$0.71)	(\$0.72)							
FY	(\$2.46)	(\$2.21)	(\$2.36)	(\$3.10)	(\$3.11)					
P/E	NM	NM		NM						
Consen	sus EPS A	Adjusted								
FY	(\$2.61)	(\$1.82)	(\$1.68)	(\$2.28)	(\$1.80)					
Revenu	e (\$M)									
FY	\$1	\$1	\$0	\$0	\$0					
P/Sales	853.8x	853.8x								
Consen	Consensus Rev									
FY	\$1	\$0	\$0	\$0	\$0					
FYE Dec										
Quarterly rounding.		ay not add to	the annu	ual value d	due to					



our FY15+ OpEx estimates. Our FY15 R&D estimate is adjusted to \$35.6M from \$42.8M previously, while our FY15 SG&A estimate is increased to \$20.9M from \$16.9M previously. Our FY15 EPS estimate is now \$(2.21) versus \$(2.36) previously.



Figure 1: Q1/15 Variance Table

Avalanche Biotechnologies

(NASDAQ: AAVL)

Consolidated Income Statement

	Mar	Mar	Variance	Variance	Y/Y	Q/Q
(\$thousands, except per share data)	Q1 2015A	Q1 2015E	A-E	%	%	%
Revenue						
AVA-101	-	-	-			
AVA-201	-	-	-			
AVA-311	-	-	-			
Other	-	-	-			
Total product revenue	-	-	-			
Collaboration and license revenue	203	203	-	0%	577%	0%
Total Revenue	203	203	-	0%	577%	0%
COGS	-	-	-			
Gross profit	203	203	-	0%	577%	0%
Operating expense	-	-	-			
R&D (GAAP)	5,621	7,555	(1,934)	-34%	518%	-22%
SG&A (GAAP)	4,143	3,401	742	18%	471%	23%
Stock-based compensation	-	-	-			
Total operating expense	9,764	10,956	(1,192)	-12%	497%	-8%
Operating income (loss)	(9,561)	(10,753)	1,192	-12%	495%	-8%
Total Other Income	52	16	36	68%	-191%	333%
Income before income taxes	\$ (9,509)	\$ (10,737)	1,228	-13%	472%	-8%
Provision for income taxes	-	-	-			
Net gain (loss)	(9,509)	(10,737)	1,228	-13%	472%	-8%
Net gain (loss) applicable to common shareholders	(9,509)	(10,737)	1,228	-13%	472%	-8%
GAAP EPS (diluted)	(0.38)	(0.43)	0.05	-13%	-16%	-17%
Weighted shares outstanding	-	-	-			
basic and diluted (k)	24,887	24,779	108	0.44%	578%	10%

Source: STRH analysis and Company reports

Figure 2: Upcoming Expected Milestones

Product	Timing	Indication	Event
AVA-101	Spring 2015	Wet age-related macular degeneration (wet AMD)	Presentation of baseline Phase IIa patient characteristics
AVA-101	Mid-2015	Wet age-related macular degeneration	Readout of a Phase IIa study
AVA-101	Mid-2015	Wet age-related macular degeneration	Potential Regeneron opt-in
AVA-101	H2 2015	Wet age-related macular degeneration	U.S. IND Filing
AVA-101	Mid-2015	Wet age-related macular degeneration	36-month data from the Phase I study (topline)
AVA-101	H2 2015	Wet age-related macular degeneration	Conference presentation of 36-month Phase I data
AVA-201	2015	Prevention of wet AMD	Completion of preclinical work for IND filing
AVA-322/AVA-323	H2 2016	Color Blindness	U.S. IND Filing

Source: STRH analysis and Company reports



Avalanche Biotechnologies

(NASDAQ: AAVL)

Salveen Richter, CFA (212) 319-3728 salveen.richter@suntrust.com

Consolidated Income Statement

(\$thousands, except per share data)	FY 2014A	Mar Q1 2015A	Jun Q2 2015E	Sep Q3 2015E	Dec Q4 2015E	FY 2015E	FY 2016E	FY 2017E	FY 2018E	FY 2019E	FY 2020E
Revenue AVA-101	\$ -	-	-	_	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 128,387
Total product revenue						\$ -	\$ -	\$ -	\$ -	\$ -	\$ 128,387
Collaboration and license revenue	572	203	203	203	203	812	812	812	812	812	812
Total Revenue	\$ 572	\$ 203	\$ 203	\$ 203	\$ 203	\$ 812	\$ 812	\$ 812	\$ 812	\$ 812	\$ 129,199
COGS Gross profit	- 572	203	- 203	203	203	- 812	- 812	- 812	- 812	- 812	6,419 122,779
Operating expense R&D (GAAP) SG&A (GAAP) Stock-based compensation	16,976 7,998 8,564	5,621 4,143 -	7,978 4,744 -	10,121 5,711 -	11,901 6,302 -	35,621 20,900 -	72,221 25,556	98,041 34,210	118,334 42,502	132,711 65,114	143,560 87,001
Total operating expense	24,974	9,764	12,722	15,832	18,203	56,521	97,777	132,251	160,836	197,825	230,561
Operating income (loss)	(24,402)	(9,561)	(12,519)	(15,629)	(18,000)	(55,709)	(96,965)	(131,439)	(160,024)	(197,013)	(107,782)
Interest Income (expense), net Other income (expense), net Change in fair value of warrant liabilities Total Other Income	(6) (70) (722) (1,002)	52 - 52	65 - 65	62 - 62	58 - 58	238 - 238	127 - 127	173 - 173	134 - 134	130 - 130	122 - 122
Deemed dividend	(3,230)										
Income before income taxes Provision for income taxes	(25,404)	(9,509)	(12,454)	(15,567)	(17,942)	(55,471)	(96,838)	(131,266)	(159,890)	(196,883)	(107,659)
Net gain (loss)	(28,634)	(9,509)	(12,454)	(15,567)	(17,942)	(55,471)	(96,838)	(131,266)	(159,890)	(196,883)	(107,659)
FX translation adjustment											
Net gain (loss) applicable to common shareholders	\$ (28,634)	\$ (9,509)	\$ (12,454)	\$ (15,567)	\$ (17,942)	\$ (55,471)	\$ (96,838)	\$ (131,266)	\$ (159,890)	\$ (196,883)	\$ (107,659)
GAAP EPS (diluted)	\$ (2.46)	\$ (0.38)	\$ (0.50)	\$ (0.62)	\$ (0.71)	\$ (2.21)	\$ (3.10)	\$ (4.16)	\$ (4.83)	\$ (5.28)	\$ (2.75)
Weighted shares outstanding											
basic and diluted (k)	11,651	24,887	25,011	25,136	25,262	25,074	31,229	31,541	33,118	37,274	39,138
Margin Analysis:											
Cost of product sales	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5%	5%
Product gross margin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	95%	95%
R&D (GAAP)	2968%	2769%	3930%	4986%	5863%	4387%	8894%	12074%	14573%	16344%	111%
SG&A (GAAP)	1398%	2041%	2337%	2813%	3104%	2574%	3147%	4213%	5234%	8019%	67%
Stock-based compensation expense	1497%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total operating expense	4366%	4810%	6267%	7799%	8967%	6961%	12042%	16287%	19807%		178%
Operating margin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-19707%		-83%
Income tax provision Net margin (GAAP)	0% N/A	0% N/A	0% N/A	0% N/A	0% N/A	0% N/A	0% N/A	0% N/A	0% -19691%	0% -24247%	0% -83%
Y/Y change:			10/1		l wa						
Total revenue	119%	677%	150%	100%	100%	142%	100%	100%	100%		
AVA-101 revenue	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
R&D (GAAP)	689%	518%	158%	76%	65%	110%	103%	36%	21%		8%
SG&A (GAAP)	349%	471%	218%	138%	86%	161%	22%	34%	24%		34%
Stock-based compensation expense	N/A 535%	0% 497%	0% 177%	0% 94%	0% 72%	0% 126%	N/A 73%	N/A 35%	N/A 22%	N/A 23%	N/A 17%
Total operating expense	606%	497% 495%	177%	94%	72%	126%	73%	35%	22%		-45%
Operating income Net income (GAAP)	440%	495% 472%	181% 50%	97% 88%	73%	128% 94%	74%	36%	22%		-45% -45%
GAAP EPS (diluted)	70%	-16%	-78%	23%	73% 54%	10%	-40%	-34%	-16%		-45% 48%
Shares outstanding - GAAP	217%	578%	581%	53%	12%	115%	25%	1%	5%		

Source: STRH Research, Company Reports



Avalanche Biotechnologies

(NASDAQ: AAVL)

Consolidated Income Statement	FY.	15E	FY.	16E	FY	17E	FY	18E	FY.	19E	FY	20E
	New	<u>Prior</u>	New	<u>Prior</u>	New	<u>Prior</u>	New	<u>Prior</u>	New	<u>Prior</u>	New	<u>Prior</u>
(\$thousands, except per share data)												
Revenue												
AVA-101	-	-	-	-	-	-	-	-	-	-	128,387	128,387
AVA-201	-	-	-	-	-	-	-	-	-	-	-	-
AVA-311	-	-	-	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-	-	-	-
	-	-	-	-	-	-	-	-	-	-	-	_
Total product revenue	-	_	-	_	-	_	-	_	-	_	128,387	128,387
·	_	_	-	_	_	_	-	_	_	_	-	
Collaboration and license revenue	812	812	812	812	812	812	812	812	812	812	812	812
	_	_	-	_	_	_	-	_	_	_	-	_
Total Revenue	812	812	812	812	812	812	812	812	812	812	129,199	129,199
COGS	-	-	-	-	-	-	-	-	-	-	6,419	6,419
Gross profit	812	812	812	812	812	812	812	812	812	812	122,779	122,779
	-	-	-	-	-	-	-	-	-	-	-	-
Operating expense	-	-	-	-	-	-	-	-	-	-	-	-
R&D (GAAP)	35,621	42,855	72,221	72,221	98,041	98,041	118,334	118,334	132,711	132,711	143,560	143,560
SG&A (GAAP)	20,900	16,958	25,556	25,556	34,210	34,210	42,502	42,502	65,114	65,114	87,001	87,001
Stock-based compensation	-	-	-	-	-	-	-	-	-	-	-	-
Total anaration average	FC F04	50.040	07 777	07 777	422.254	420.054	400.000	400.000	407.005	407.005	220 504	220 504
Total operating expense	56,521	59,813 -	97,777 -	97,777 -	132,251	132,251	160,836	160,836	197,825 -	197,825	230,561	230,561
Operating income (loss)	\$ (55,709.00)	\$ (59,001.00)	\$ (96,965.00)	\$ (96,965.00)	\$ (131,439.00)	\$ (131,439,00)	\$ (160,024.00)	\$ (160,024.00)	\$ (197,013.00)	\$ (197,013.00)	\$ (107,781.55)	\$ (107,781.55)
	-	-	-	-	-	-	-	-	-	-	-	-
Total Other Income	238	74	127	122	173	169	134	129	130	124	122	116
Deemed dividend			-	-	-	-	-	-	-	-	-	-
Doomida dividona												
Income before income taxes	\$ (55,471)	\$ (58,927)	\$ (96,838)	\$ (96,843)	\$ (131,266)	\$ (131,270)	\$ (159,890)	\$ (159,895)	\$ (196,883)	\$ (196,889)	\$ (107,659)	\$ (107,666)
Provision for income taxes	- (00, 77.1)	- (55,521)	- (55,500)	- (55,540)	- (.5.,200)	- (.0.,270)	- (.55,550)	- (.55,566)	- (.55,500)	- (.55,366)	- (.5.,555)	- (.0.,000)
Net gain (loss)	(55,471)	(58,927)	(96,838)	(96,843)	(131,266)	(131,270)	(159,890)	(159,895)	(196,883)	(196,889)	(107,659)	(107,666)
FX translation adjustment	(00,471)	(00,527)	(50,555)	(50,545)	(101,200)	(101,270)	(100,000)	(100,000)	(100,000)	(150,505)	(107,000)	(107,000)
1 X translation adjustment												
Net gain (loss) applicable to common shareholders	(55,471)	(58,927)	(96,838)	(96,843)	(131,266)	(131,270)	(159,890)	(159,895)	(196,883)	(196,889)	(107,659)	(107,666)
	, , ,						,	, , ,	, , , , ,		,	
GAAP EPS (diluted)	(2.21)	(2.36)	(3.10)	(3.11)	(4.16)	(4.18)	(4.83)	(4.85)	(5.28)	(5.30)	(2.75)	(2.76)
Weighted shares outstanding												
basic and diluted (k)	25,074	24,965	31,229	31,118	31,541	31,429	33,118	33,000	37,274	37,151	39,138	39,008
Cash, cash equivalents and marketable securities	-	-	547,012.0	533,938.0	415,573.0	402,499.0	255,549.0	242,475.0	308,536.0	295,462.0	200,754.4	187,680.4
	-	-	-	-	-	-	-	-	-	-	-	-

Source: STRH Research, Company Reports



Company Description

Avalanche Biotechnologies, Inc. is a clinical-stage biotechnology company that develops novel gene therapies to treat patients with sight-threatening ophthalmic diseases. Its products are used for the treatment of wet age-related macular degeneration and Juvenile X-linked Retinoschisis by inducing a sustained expression of a therapeutic protein with a one-time administration in the eye. The company was founded by Mark S. Blumenkranz, Thomas W. Chalberg and Steven D. Schwartz on July 17, 2006 and is headquartered in Menlo Park, CA.

Investment Thesis

Avalanche is one of the slew of new entrants in the biotech space, focused on gene therapy. Broad investor interest in the renaissance of gene therapy is evidenced by the strong performance of most of these stocks over their S1 price. Furthermore, AAVL shares are currently down off its highs at the end of December, providing an entry point ahead of readout of the Phase IIa study of lead product AVA-101 for wet age-related macular degeneration (AMD) in mid-2015. This product consists of an adeno-associated vector-based gene therapy, with the potential to disrupt and expand the \$6B+ anti-VEGF market. Clinical results generated to date are suggestive of activity in a small number of patients with advanced disease. A randomized Phase IIa single center study is ongoing in Australia, with results expected, as noted, mid-2015. Given AVA-101's mechanism of action similar to antivascular endothelial growth factor (VEGF) biologics Lucentis and Eylea, the product could also have utility beyond wet AMD, in diseases such as retinal vein occlusion or diabetic macular edema (where Lucentis and Eylea are the standard of care). A follow-on preclinical gene therapy product AVA-201 is expected to undergo IND-enabling studies in 2015 for the prevention of high risk wet AMD. Avalanche is collaborating with Regeneron for the development of novel gene therapies for eye diseases, with the first product (preclinical stages) AVA-311 to address the orphan disease Xlinked retinoschisis (XLRS). Notably, Regeneron also retains a time-limited right to first negotiation of rights to AVA-101.

Valuation and Risks

Valuation

We arrive at our price target of \$60 by means of a sum-of-the-parts discounted cash flow analysis, which ascribes \$46.24/share to AVA-101 U.S. sales, \$6.11 to AVA-101 E.U. sales, and \$8.04/share to cash. We assign AVA-101 in a probability of success of 55% in the U.S. and 25% in the E.U. We assume a discount rate of 12% and a 1% terminal growth rate. We do not model for any additional indications for AVA-101 beyond wet AMD. We do not include any value for AVA-201, AVA-311, or any other follow on products in our valuation.

Investment risks

The primary investment risks for Avalanche include the following:

- Clinical and safety risk: Phase I results presented to date showcased some intriguing signs of activity for Avalanche's AVA-101. The limitations of these data, however, include the small number of patients, a single center whereby doctors were well familiar with subretinal injection, and participants with advanced wet AMD who experienced tremendous increases in best corrected visual acuity. There remains the risk that Phase IIa and Phase IIb data do not recapitulate earlier findings due to differences in patient baseline characteristics, variability in time of assessment and determination of whether an anti-VEGF injection is needed, variability in efficacy measurements. There also remains a risk (albeit minimal) that in vivo dosing of AVA-101 could lead to an exaggerated immune reaction, resulting in loss of anti-VEGF molecule expression of significant loss of eye tissue.
- Regulatory risk: No gene therapy product has been approved in the U.S. to date, and in spite of the FDA's guidance there remain questions about the appropriate study design for pivotal gene therapy trials, especially for orphan diseases. The agency may require additional information on manufacturing methodology, as well as facilities where all the moving parts of a complex therapy are generated.
- Commercial risk: Given the novelty of gene therapy, there remains a risk that physicians are reluctant to prescribe AVA-101 to their patients. We note the risk of AVA-101 not reaching our sales estimates due to potential pricing and reimbursement issues, lower than expected penetration, or lack of ability to effectively target the broad wet AMD market.



- Competitive Risk: AVA-101 is entering the established wet AMD market, where two branded products (RHHBY's Lucentis and REGN's Eylea) and off-label Avastin are competing for share of the prevalent patient pool. Furthermore, AVA-101 competes with products such as Ophthotech's Fovista and Allergan's DARPins, which offer alternatives to the current anti-VEGF standard of care. Beyond monthly or every other month injections, AVA-101 is also competing with other gene therapies, including Sanofi/Genzyme's rAAV2-sFLT01, which has also completed Phase I testing. There is a risk that AVA-101 would not capture significant share of the wet AMD market, or of the retinal vein occlusion or diabetic macular edema markets.
- Financial and partnership risk: Avalanche does not currently recognize any revenue related to product sales. Given the expenses associated with clinical drug development, we forecast that the company could issue additional equity to finance its activities. There remains a risk that the company's cash reserves may be significantly depleted while attempting to fulfill collaborative obligations for partner Regeneron. There is a risk that no appropriate candidates emerge from the collaboration with Regeneron, thereby jeopardizing the non-dilutive cash inflow associated with this partnership (we do not model for any revenue associated with the partnership apart from the \$6.5M upfront payment).

Analyst Certification

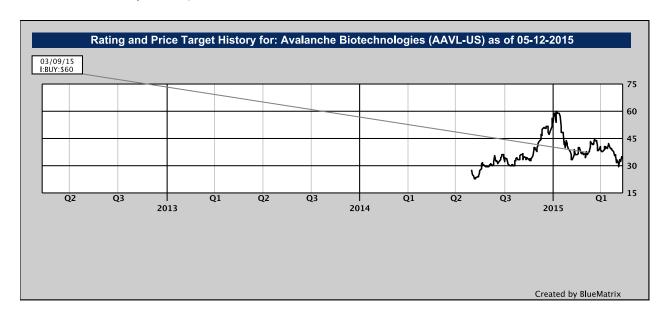
I, Salveen Richter, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject company(ies) and its (their) securities. I also certify that I have not been, am not, and will not be receiving direct or indirect compensation in exchange for expressing the specific recommendation(s) in this report.

Required Disclosures

SunTrust Robinson Humphrey, Inc. makes a market in the following companies at the time of this report: AAVL, AAVL-US

Analyst compensation is based upon stock price performance, quality of analysis, communication skills, and the overall revenue and profitability of the firm, including investment banking revenue.

As a matter of policy and practice, the firm prohibits the offering of favorable research, a specific research rating or a specific target price as consideration or inducement for the receipt of business or compensation. In addition, associated persons preparing research reports are prohibited from owning securities in the subject companies.





STRH Ratings System for Equity Securities

3 designations based on total returns* within a 12-month period**

- Buy total return ≥ 15% (10% for low-Beta securities)***
- **Reduce** total return ≤ negative 10% (5% for low Beta securities)
- Neutral total return is within the bounds above
- NR NOT RATED, STRH does not provide equity research coverage
- CS Coverage Suspended
- *Total return (price appreciation + dividends)
- **Price targets are within a 12-month period, unless otherwise noted
- ***Low Beta defined as securities with an average Beta of 0.8 or less, using Bloomberg's 5-year average Beta

Legend for Rating and Price Target History Charts:

D = drop coverage

I = initiate coverage

T = transfer coverage

SunTrust Robinson Humphrey ratings distribution (as of 05/13/2015):

Coverage Univer	rse		Investment Banking C	lients Past 1	2 Months
Rating	Count	Percent	Rating	Count	Percent
Buy	292	52.61%	Buy	105	35.96%
Neutral	251	45.23%	Neutral	49	19.52%
Sell/Reduce	12	2.16%	Sell/Reduce	2	16.67%

Other Disclosures

Information contained herein has been derived from sources believed to be reliable but is not guaranteed as to accuracy and does not purport to be a complete analysis of the security, company or industry involved. This report is not to be construed as an offer to sell or a solicitation of an offer to buy any security. SunTrust Robinson Humphrey, Inc. and/or its officers or employees may have positions in any securities, options, rights or warrants. The firm and/or associated persons may sell to or buy from customers on a principal basis. Investors may be prohibited in certain states from purchasing some overthe-counter securities mentioned herein. Opinions expressed are subject to change without notice. The information herein is for persons residing in the United States only and is not intended for any person in any other jurisdiction.

SunTrust Robinson Humphrey, Inc.'s research is provided to and intended for use by Institutional Accounts as defined in FINRA Rule 4512(c). The term "Institutional Account" shall mean the account of: (1) a bank, savings and loan association, insurance company or registered investment company; (2) an investment adviser registered either with the SEC under Section 203 of the Investment Advisers Act or with a state securities commission (or any agency or office performing like functions); or (3) any other person (whether a natural person, corporation, partnership, trust or otherwise) with total assets of at least \$50 million.

SunTrust Robinson Humphrey, Inc. is a registered broker-dealer and a member of FINRA and SIPC. It is a service mark of SunTrust Banks, Inc. SunTrust Robinson Humphrey, Inc. is owned by SunTrust Banks, Inc. ("SunTrust") and affiliated with SunTrust Investment Services, Inc. Despite this affiliation, securities recommended, offered, sold by, or held at SunTrust Robinson Humphrey, Inc. and at SunTrust Investment Services, Inc. (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including SunTrust Bank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. SunTrust Bank may have a lending relationship with companies mentioned herein.

© SunTrust Robinson Humphrey, Inc. 2015 . All rights reserved. Reproduction or quotation in whole or part without permission is forbidden.

ADDITIONAL INFORMATION IS AVAILABLE at our website, **www.suntrustrh.com**, or by writing to: SunTrust Robinson Humphrey, Research Department, 3333 Peachtree Road N.E., Atlanta, GA 30326-1070