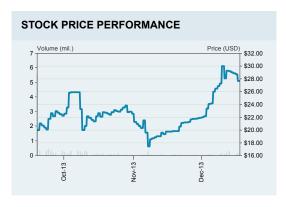


Acceleron Pharma Inc. (XLRN)

Sotatercept Moves Forward in ESRD

MARKET DATA	
Price	\$28.23
52-Week Range:	\$16.78 - \$31.43
Shares Out. (M):	26.5
Market Cap (\$M):	\$748.1
Average Daily Vol. (000):	193.0
Cash (M):	\$116
Cash/Share:	\$4.13
Enterprise Value (M):	\$678
Float (M):	24.2
LT Debt (M):	\$11
Source: Thomson Reuters and JMP Securities LLC	

FY DEC		2012A	2013E	2014E
Revenue (\$N	1) 1Q		\$15.0A	\$4.9
EPS	2Q		\$26.4A	\$5.2
	3Q		\$4.3A	\$5.4
	4Q		\$11.7	\$20.9
	FY	\$15.3	\$57.4	\$36.4
	1Q		\$0.12A	(\$0.33)
	2Q		\$0.44A	(\$0.33)
	3Q		(\$5.62)A	(\$0.34)
	4Q		(\$0.07)	\$0.13
	FY	(\$1.43)	(\$0.55)	(\$0.81)
	P/E	NM	NM	NM
Previo	us FY	NC	(\$0.82)	(\$0.57)
Source: Company reports and JMP Securities LLC				



MARKET OUTPERFORM | Price: \$28.23 | Target Price: \$36.00

INVESTMENT HIGHLIGHTS

Celgene initiates a Phase II trial of sotatercept in ESRD patients on hemodialysis, delivering a \$7MM milestone payment to Acceleron Pharma as anticipated; reiterate Market Outperform rating and \$36 price target. The two-stage Phase II trial, which will be led by Celgene, will determine the safety and efficacy of IV and sub-cutaneous (SQ) administrations of sotatercept in the management of anemia and other clinical manifestations of chronic kidney disease-mineral and bone disorder (CKD-MBD). After establishing an appropriate dosing regimen in the initial, 60-patient, dose-escalation portion of the study, approximately 230 patients will be randomized to receive either sotatercept or ESAs and monitored for primary endpoints of mean change in hemoglobin levels from baseline and bone turnover. The ESRD hemodialysis patient population is considerable (~400,000 patients by our estimates), representing an appreciable market opportunity for sotatercept at even modest penetration rates. Given that our sotatercept model anticipates its use in the treatment of beta-thalassemia and MDS, ESRD represents an upside to our current valuation of the program. Reflecting on the receipt of the \$7MM milestone payment slightly ahead of expectations, we have reduced our net loss estimate for 4Q13 EPS from (\$0.32) to (\$0.07), and our 2Q14 net loss estimates have been increased from (\$0.09) to (\$0.33), with negligible impact to our valuation. Our \$36 price target is derived through a synthesis of DCF, comparable and CAGR model valuation methodologies.

Acceleron represents a compelling opportunity in the biotech space over the course of the next several years. Our view is drawn from the company's focus and understanding of TGF beta biology, as well as developmental and commercialization advantages offered through its strategic partnership with Celgene (CELG, MO, \$175 PT). In our opinion, the company's first wave of product candidates, validated by Celgene's significant investment, is but the tip of the iceberg that, over time, should create significant value for shareholders.

Michael G. King, Jr. mking@jmpsecurities.com (212) 906-3520 Eric Joseph, PhD ejoseph@jmpsecurities.com (212) 906-3514



FIGURE 1. Upcoming Milestones

Timing	Drug	Milestones
4Q13	Sotatercept	Update from Sotatercept Phase II trial in β -thalassemia at ASH (Dec 9)
4Q13/1Q14	Dalantercept	Preliminary data from Phase II, GOG-sponsored trials in ovarian cancer
1Q14	Sotatercept & ACE-536	Initiation of RP2D expansion cohorts in ongoing β -thalassemia Phase II trials
1Q14	Dalantercept	Preliminary data from dose-escalation stage of Phase II RCC trial in combination with axitinib; start of randomized stage versus axitinib alone
2Q14	Sotatercept & ACE-536	Presentation of dose escalation Phase II results in $\beta\text{-thalassemia}$ and MDS
3Q14	Dalantercept	Initiation of Phase II trial(s) in additional indication(s)
4Q14	Sotatercept & ACE-536	Final results from Phase II trials in β-thalassemia and MDS
4Q14	Sotatercept & ACE-536	Initiation of Phase III trial in β-thalassemia and/or MDS
4Q14	ACE-083	Initiation of Phase I trial in muscular dystrophy
0	 	One and the second seco

Source: JMP Securities LLC and Company Reports



Company Description

Acceleron Pharma (XLRN) is a Cambridge, MA biotechnology company focused on the discovery, development, and commercialization of its ligand trap fusion proteins directed against components of TGF β signaling pathway. These fusion proteins have shown clinical potential in the treatment of anemia disorders related to β -thalassemia and myelodysplastic syndromes, as well as in the treatment of solid cancers, muscle wasting disorders, and other indications impacted by dysregulated TGF β .

Since 2008, the company has benefited by robust strategic collaboration with Celgene related to its development lead programs, sotatercept and ACE-536, entitling the company to full reimbursement on both programs and eligibility for up to \$567MM in development, regulatory, and commercial milestones, and a \ge 20% royalty on worldwide sales, by our estimates. Sotatercept and ACE-536 are currently in Phase II trials for the treatment of β -thalassemia and low/intermediate-1 MDS with pivotal Phase III trials expected to initiate in the first half of 2014.

Dalantercept, the company's wholly owned, clinical-stage fusion protein, is directed against ALK1, a key mediator of tumor angiogenesis that functions independently from the VEGF axis. Dalantercept is currently in Phase II evaluation for the treatment of second-line RCC in combination with TKI therapy.

Investment Risks

Clinical. Drug development is an inherently risky business. Clinical trials always carry a risk of failure and Acceleron's assets (sotatercept, ACE-536, Dalantercept, or future drug candidates) may fail to demonstrate meaningful enough levels of efficacy in current or future clinical trials.

Regulatory and commercial. The ability of Acceleron or its partners to market its drugs depends on those drugs obtaining approval from the FDA and foreign regulatory agencies. Failure to achieve approval or delays in the timelines to approval could negatively impact the company's share price.

Competitive. Hereditary anemic disorders represent an increasingly competitive field and Acceleron faces competition from companies with development-stage drug candidates addressing similar biologic mechanisms, and from companies attempting to broaden the applicable indications for products already approved for use. Some of these companies may possess substantially greater R&D and commercial resources than Acceleron or its partners. As such, there is no assurance Acceleron will be competitive or differentiated from other drug products.

Partners. Acceleron has formed development and commercial partnerships with Celgene and is highly dependent on these partnerships for non-dilutive sources of capital, and for the potential commercialization of sotatercept and/or ACE-536. Changes to these partnership arrangements could have a substantially negative impact to the company's share price.

Financial. Following its IPO, we estimate that Acceleron will end 4Q13 with approximately \$87MM in cash and cash equivalents - adequate resources to fund operations into 2015, according to Acceleron financial guidance. We anticipate that Acceleron is likely to seek additional equity financing in the form of a secondary offering in order to complete the development of its drug candidates, creating dilution risk for existing shareholders.



JMP FACTS AND DISCLOSURES

Analyst Certification:

The research analyst(s) who prepared this report does/do hereby certify that the views presented in this report are in accordance with my/our personal views on the securities and issuers discussed in this report. As mandated by SEC Regulation AC no part of my/our compensation was, is or will be directly or indirectly related to the specific views or recommendations expressed herein. This certification is made under the obligations set forth in SEC Regulation AC. Any other person or entity may not use it for any other purpose. This certification is made based on my/our analysis on the date of this report's publication. I/We assume no obligation to update this certification to reflect any facts, circumstances or events that may subsequently come to my/our attention. Signed Michael G. King and Eric Joseph

JMP Securities Disclosures:

JMP Securities currently makes a market in the securities of Acceleron Pharma Inc. and Celgene Corporation

JMP Securities was manager or co-manager of a public offering, and received compensation for doing so, for Acceleron Pharma Inc. in the past 12 months.

JMP Securities Investment Opinion Definitions:

Market Outperform (MO): JMP Securities expects the stock price to outperform relevant market indices over the next 12 months.

Market Perform (MP): JMP Securities expects the stock price to perform in line with relevant market indices over the next 12 months.

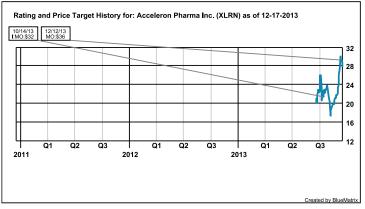
Market Underperform (MU): JMP Securities expects the stock price to underperform relevant market indices over the next 12 months.

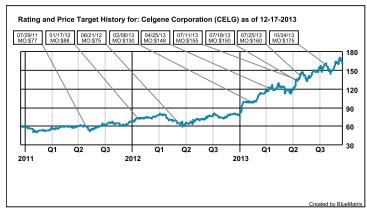
JMP Securities Research Ratings and Investment Banking Services: (as of December 17, 2013)

							# Co's	
						Receiving		
							IB	
		# Co's	%		# Co's	%	Services in	% of Co's
	Regulatory	Under	of	Regulatory	Under	of	Past 12	With This
JMP Rating	Equivalent	Coverage	Total	Equivalent	Coverage	Total	Months	Rating
								_
MARKET OUTPERFORM	Buy	231	55.00%	Buy	231	55.00%	89	38.53%
MARKET PERFORM	Hold	140	33.33%	Hold	140	33.33%	24	17.14%
MARKET UNDERPERFORM	Sell	5	1.19%	Sell	5	1.19%	0	0%
COVERAGE IN TRANSITION		44	10.48%		44	10.48%	0	0%
TOTAL:		420	100%		420	100%	113	26.90%

Stock Price Chart of Rating and Target Price Changes:

Note: First annotation denotes initiation of coverage or 3 years, whichever is shorter. If no target price is listed, then the target price is N/A. In accordance with NASD Rule 2711, the chart(s) below reflect(s) price range and any changes to the rating or price target as of the end of the most recent calendar guarter. The action reflected in this note is not annotated in the stock price chart. Source: JMP Securities.





December 18, 2013

Acceleron Pharma Inc. (XLRN)



JMP Disclaimer:

JMP Securities LLC (the "Firm") compensates research analysts, like other Firm employees, based on the Firm's profitability, which includes revenues from the Firm's institutional sales, trading, and investment banking departments as well as on the guality of the services and activities performed that are intended to benefit the Firm's institutional clients. These data have been prepared by JMP Securities LLC for informational purposes only and are based on information available to the public from sources that we believe to be reliable, but we do not guarantee their accuracy or completeness. Any opinions and projections expressed herein reflect our judgment at this date and are subject to change without notice. These data are neither intended nor should be considered as an offer to sell or a solicitation or a basis for any contract for the purchase of any security or other financial product. JMP Securities LLC, its affiliates, JMP Group LLC, Harvest Capital Strategies LLC, and their respective partners, directors, officers, and associates may have a long or short position in, may act as a market maker for, or may purchase or sell a position in the securities mentioned herein. JMP Securities LLC or its affiliates may be performing, have performed, or seek to perform investment banking, advisory, or other services and may have acted as manager or co-manager for a public offering of securities for any company mentioned herein. The reader should assume that JMP Securities LLC will solicit business from the company covered in this report. Members of our Sales and Trading Department provide oral and/or written market opinions and trading strategies to our clients that reflect their personal opinions about stocks that are the subject of the firm's research reports. Our research analysts discuss trading strategies with clients and complete surveys from clients that sometimes reflect short-term expectations for the price of the securities that are the subject of research reports. Those trading strategies and survey responses are distinct from the analysts' fundamental rating for the stock, which is based upon the analysts' view compared to other stocks under coverage for the relevant time period. © Copyright 2013. All rights reserved by JMP Securities LLC. JMP Securities LLC is a member of FINRA, NASDAQ, and SIPC.



Jeffrey H. Spurr Director of Research (415) 835-3903

RESEARCH PROFESSIONALS

FINANCIAL SERVICES

Alternative Asset Managers		Medical Devices		
Devin Ryan	(212) 906-3578	J. T. Haresco, III, PhD Marie T. Casey, PhD	(415) 869-4477 (415) 835-3955	
Commercial & Specialty Finance		•	` ,	
Christopher York	(415) 835-8965	Medical Devices & Supplies		
Hannah Kim, CFA	(415) 835-8962	David Turkaly	(212) 906-3563	
		John Gillings	(212) 906-3564	
Consumer Finance	(445) 005 0040			
David M. Scharf	(415) 835-8942	REAL ESTATE		
Jeremy Frazer	(312) 768-1796			
Financial Processing & Outsourcing		Housing & Land Development		
David M. Scharf	(415) 835-8942	Peter L. Martin, CFA	(415) 835-8904	
Jeremy Frazer	(312) 768-1796	Aaron Hecht	(415) 835-3963	
	(,	Bharathwajan Iyengar	(415) 835-3902	
Insurance		Ladaina		
Matthew J. Carletti	(312) 768-1784	Lodging Robert A. LaFleur	(212) 906-3510	
Christine Worley	(312) 768-1786	Whitney Stevenson	(212) 906-3510	
		Williney Stevenson	(212) 900-3336	
Investment Banks & Brokers	(0.4.0), 0.00, 0.5.7.0	Property Services		
Devin Ryan	(212) 906-3578	Mitch Germain	(212) 906-3546	
Martaga Finance		Peter Lunenburg	(212) 906-3537	
Mortgage Finance Steven C. DeLaney	(404) 848-7773	3	()	
Trevor Cranston, CFA	(415) 869-4431	REITs: Healthcare		
Charter Robinson	(757) 613-8955	Peter L. Martin, CFA	(415) 835-8904	
Benjamin Zucker	(212) 906-3529	Aaron Hecht	(415) 835-3963	
Benjamin Zaeker	(2.12) 333 3323	Arthur Kwok	(415) 835-8908	
HEALTHCARE		REITs: Office, Industrial, & Diversified		
		Mitch Germain	(212) 906-3546	
Biotechnology		Peter Lunenburg	(212) 906-3537	
Liisa A. Bayko	(312) 768-1785			
Heather Behanna, PhD	(312) 768-1795	TECHNOLOGY		
Andrew Prigodich	(312) 768-1788	TEOTINOEGGT		
Jason N. Butler, PhD	(212) 906-3505	Communications Equipment & Internet S	Security	
Christopher T. Radom, PhD	(212) 906-3519	Erik Suppiger	(415) 835-3918	
Caroline Palomeque	(212) 906-3509	John Lucia	(415) 835-3920	
Michael G. King, Jr.	(212) 906-3520		,	
Eric Joseph, PhD Joseph A. Knowles	(212) 906-3514 (212) 906-3525	Internet & Digital Media		
Joseph A. Khowles	(212) 900-3323	Ronald V. Josey III	(212) 906-3528	
Healthcare Services & Facilities		Andrew Boone	(415) 835-3957	
Peter L. Martin. CFA	(415) 835-8904			
Aaron Hecht	(415) 835-3963	Software	(((=) 00= 00 (0	
Arthur Kwok	(415) 835-8908	Patrick Walravens	(415) 835-8943	
- 1	(-,	Peter Lowry	(415) 869-4418	
Life Science Tools & Diagnostics		Caitlin Schields	(415) 835-8960	
J. T. Haresco, III, PhD	(415) 869-4477	Greg McDowell	(415) 835-3934	
Marie T. Casey, PhD	(415) 835-3955	Wireless & Cloud Computing Technologic	ios	
		Alex Gauna Computing Technologies (415) 835-8998		
		Michael Wu	(415) 835-8996	
			, 555 5556	

ADDITIONAL CONTACTS

Thomas R. Wright Director of Equities (212) 906-3599 Dan Wychulis Director of Institutional Sales (617) 235-8530 **600 Montgomery Street, Suite 1100** San Francisco, CA 94111 www.jmpsecurities.com