Radius Health

Biotechnology

US Equity Research
22 April 2015

BUY
unchanged

PRICE TARGET	US$70.00
unchanged	
Price (21-Apr)	US$42.38
Ticker	RDUS-NASDAQ

52-Week Range (US$):	7.46 - 51.22
Avg Daily Vol (M) :	248.6
Shares Out. (M) :	29.7
Market Cap (US$M):	1,261

FYE Dec	2013A	2014A	2015E	2016E
Revenue (US$M)	0.0	0.0	0.0	82.1
EPS Adj&Dil (US$)	(3.97)	(53.81)	(2.54)	(1.19)

Quarterly Revenue	Q1	Q2	Q3	Q4
2013A	-	-	-	-
2014A	0.0	0.0	0.0	0.0
2015E	0.0A	0.0	0.0	0.0
2016E	-	-	-	-

Quarterly EPS Adj&Dil	Q1	Q2	Q3	Q4
2013A	-	-	-	-
2014A	(50.45)	(2.22)	(0.59)	(0.55)
2015E	(0.55)A	(0.72)	(0.62)	(0.64)
2016E	-	-	-	-

Source: FactSet

Radius is a biotechnology company focused on drugs for endocrine disorders, including osteoporosis.

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Company Update

No fracture readout for romosozumab vs. Forteo, positive for abaloparatide

Amgen says no fracture readout for romosozumab vs. Forteo

Amgen confirmed on its 1Q15 conference call that no fracture data will be collected for romosozumab vs. Forteo in the STRUCTURE trial in severe osteoporosis, whereas abaloparatide has already shown a benefit head to head vs. Forteo here. We reiterate our view that abaloparatide will be utilized mainly in severe osteoporosis patients, a setting where romosozumab will have only bone mineral density data versus Forteo. We expect romosozumab to be used primarily in early-stage osteoporosis, minimizing competition versus abaloparatide.

Anticipate positive abaloparatide extension data 2Q/mid-2015

We expect Radius to report positive extension data at six months following the 18-month Phase 3 ACTIVE study during 2Q/mid-2015, which should support strong safety for abaloparatide. Patients in the extension study will be treated with alendronate alone in both arms. Radius will examine the reduction in new vertebral fractures for patients receiving alendronate after abaloparatide versus alendronate following placebo, as well as safety for both arms.

Continue to expect NDA filing 2H15, approval during 2016

We expect FDA approval for abaloparatide during 2016 following NDA filing in 2H15. We remind investors that the Forteo market in the US is $1.2B, and that abaloparatide has shown both better efficacy *and* safety head to head versus Forteo in a large, randomized, double blind Phase 3 study. We model US peak sales of $580M by 2020, and Ex-US peak sales of ~$300M by 2020.

Figure 1: RDUS valuation

Product	Peak Sales ($MM)	Year	NPV at launch	Probability Adjustment	Current Value ($MM)	Scenario probability	Value / Share (NPV)	Value / Share (EV/Sales)
abaloparatide								
US	$822	2022	$1,345	85%	$966	100%	$33	$46
Ex-US - co-promote	$346	2021	$421	85%	$270	50%	$5	$11
Ex-US - royalty	$346	2021	$199	85%	$139	50%	$2	$11
Total abaloparatide					**$1,236**		**$40**	**$68**
RAD-1901								
US	$467	2023	$662	35%	$232		$8	$10
Ex-US	$427	2023	$186	35%	$65		$0	$9
Total RAD-1901					**$297**		**$8**	**$18**
Total Product Value					$1,236		$48	$86
Cash					70		$2	$2
Total Equity Value					**1,306**		**$51**	**$89**
Shares Outstanding (MM)					29			
							Average	**$70**

Risk-Free Rate	3.0%
Beta	1.8
Risk Premium	5%
Discount Rate	12%
EV/Sales	4.25

Source: Company reports, Canaccord Genuity estimates

Figure 2: Income statement

Radius Health, Inc.

(000's) [FY - DEC]

Revenues	2014A	1Q15E	2Q15E	3Q15E	4Q15E	2015E	2016E	2017E	2018E	2019E	2020E
abaloparatide - US							82,120	239,867	357,419	465,944	583,042
abaloparatide - Ex-US							-	90,548	204,751	251,503	298,717
Total							**82,120**	**330,415**	**562,170**	**717,447**	**881,759**
Income Statement	**2014A**	**1Q15E**	**2Q15E**	**3Q15E**	**4Q15E**	**2015E**	**2016E**	**2017E**	**2018E**	**2019E**	**2020E**
Total Revenue	-	-	-	-	-	-	82,120	264,315	457,747	594,210	738,375
COGS	-	-	-	-	-	-	16,424	52,863	91,549	118,842	147,675
Gross Profit	-	-	-	-	-	-	65,696	211,452	366,198	475,368	590,700
Operating Expenses											
Research and development	45,719	13,393	16,270	15,173	13,525	58,361	47,591	47,070	57,626	77,561	111,588
General and administrative	13,674	3,000	3,200	3,400	3,600	13,200	57,484	85,902	102,993	133,697	166,134
Total Operating Expense	59,393	16,393	19,470	18,573	17,125	71,561	105,075	132,972	160,619	211,258	277,722
EBITDA											
Operating income	(59,393)	(16,393)	(19,470)	(18,573)	(17,125)	(71,561)	(39,379)	78,480	205,578	264,110	312,978
Other income (expense), net	(2,126)	(818)	(2,126)	(818)	(2,126)	(5,888)	(2,126)	(5,888)	(2,126)	(5,888)	(2,126)
Loss on retirement of note payable											
Interest (expense) income, net	(768)	52	(768)	52	(768)	(1,432)	(768)	(1,432)	(768)	(1,432)	(768)
Accretion of preferred stock											
Pre-tax income (GAAP)	(71,501)	(17,159)	(22,364)	(19,339)	(20,019)	(78,881)	(42,273)	71,160	202,684	256,790	310,084
Pre-tax income (non-GAAP)											
Taxes (GAAP)	-	-	-	-	-	-	-	26,329	74,993	95,012	114,731
Tax rate (GAAP)	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%
Net Income (GAAP)	(71,501)	(17,159)	(22,364)	(19,339)	(20,019)	(78,881)	(42,273)	44,831	127,691	161,778	195,353
GAAP EPS (diluted)	**($53.81)**	**($0.55)**	**($0.72)**	**($0.62)**	**($0.64)**	**($2.54)**	**($1.19)**	**$1.20**	**$3.26**	**$3.93**	**$4.52**
Diluted shares outstanding	17,578	31,001	31,032	31,063	31,094	31,539	35,562	37,340	39,207	41,167	43,226

Source: Company reports, Canaccord Genuity estimates

Appendix: Important Disclosures

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Target Price / Valuation Methodology:

Radius Health - RDUS

Our $70 price target is based on the average of our probability adjusted NPV and EV/S methodologies.

Risks to achieving Target Price / Valuation:

Radius Health - RDUS

Risks to our outlook and price target include the following: the Phase 3 study for abaloparatide in osteoporosis may be negative, or fail to meet investor expectations, resulting in downside to shares and our price target. Also, Phase 3 data may be positive in terms of efficacy, but show an unexpected safety signal, also resulting in downside to our price target. Antibody formation was been seen in Phase 2 studies, with one patient showing potential evidence of neutralizing antibodies. Even assuming positive Phase 3 data for subcutaneous abaloparatide in osteoporosis, FDA approval may be delayed or may not occur at all, also resulting in downside to shares and our price target. FDA may also grant approval, but require large, lengthy and expensive post-approval studies, which could also result in downside to shares and our price target. Clinical data from other osteoporosis products including anti-sclerostin antibodies from Amgen, Merck, Eli Lilly and Novartis could be viewed as superior to abaloparatide, pressuring shares. Competition from existing and new osteoporosis products could also result in lower revenues that expected, leading to downside to our estimates and the share price. Although unlikely, a paragraph 4 challenge could be filed against Lilly's Forteo, a molecule closely related to abaloparatide, which investors may interpret as increasing risk for abaloparatide, and pressuring Radius shares. Forteo was approved as an NDA, where the ANDA pathway is well established. Even though Forteo is essentially a biologic, since it is a peptide, it is feasible although unlikely that a generic challenger could emerge. FDA has approved a generic version of Lovenox, a biologic approved via the NDA pathway, although the process took many years. If a generic version of Forteo were to reach the market, usage of abaloparatide could decline, resulting in downside to our estimates and price target. Also, if FDA were to approve a generic version of Copaxone, a peptide used to treat multiple sclerosis, investors may see increased risk of a generic challenge and approval for abaloparatide, as both products are classified as NDA filings for biologic peptides. A transdermal microneedle formulation for abaloparatide may not be feasible, which investors may view as negative for life cycle management and commercial competitive positioning for Radius, pressuring shares. Even if a microneedle formulation can be developed to show equal efficacy to the subcutaneous formulation, FDA may require a full clinical study versus a bridging study, which would require additional funding and time to approval.

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Global Stock Ratings (as of 04/22/15)

Rating	Coverage Universe		IB Clients
	#	%	%
Buy	585	58.85%	33.50%
Hold	325	32.70%	17.85%
Sell	40	4.02%	2.50%
Speculative Buy	44	4.43%	61.36%
	994*	100.0%	

*Total includes stocks that are Under Review

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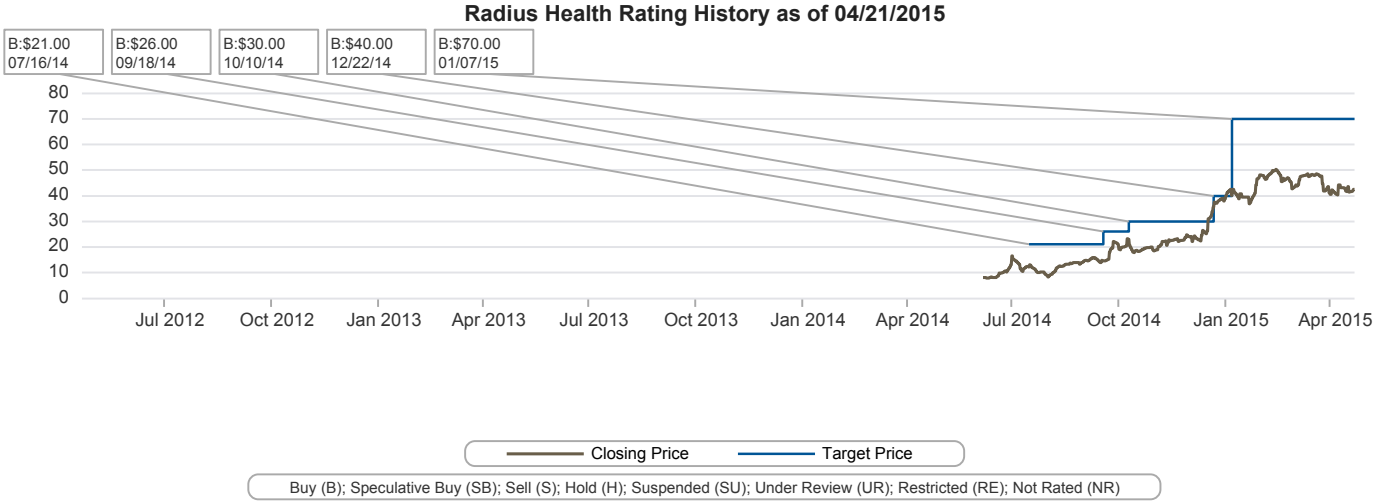
Radius Health Rating History as of 04/21/2015



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