

US Equity Research

7 January 2015

BUY

unchanged

PRICE TARGET US\$70.00↑

from US\$40.00

Price (22-Dec) US\$40.08

Ticker RDUS-NASDAQ

52-Week Range (US\$): 7.46 - 32.82
 Avg Daily Vol (M) : 137.7
 Shares Out. (M) : 29.7
 Market Cap (US\$M): 1,399

FYE Dec	2013A	2014E	2015E	2016E
Revenue (US\$M)	0.0	0.0	0.0	82.1
EPS Adj&Dil (US\$)	(3.97)	(54.05)	(3.06)	(1.52)

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

Quarterly EPS Adj&Dil	Q1	Q2	Q3	Q4
2013A	-	-	-	-
2014E	(50.45)A	(2.22)A	(0.59)A	(0.79)
2015E	(0.68)	(0.88)	(0.75)	(0.75)
2016E	-	-	-	-



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

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Raising Target Price

Radius positioned well going into 2015; expect major catalysts; raising PT to \$70 from \$40

Expect additional abaloparatide data in 2015, significant upside potential

Recent data for abaloparatide met the primary endpoint, demonstrating a significant decrease in incidence of vertebral fractures vs. placebo and numerically better reduction vs. Forteo, which we see as a clear positive approaching NDA submission in 2H15. We await details on non-vertebral and hip fracture rates for abaloparatide versus Forteo, which we feel could give abaloparatide a significant commercial advantage. We expect more detailed Ph 3 data to be presented at a major medical conference in 2015 (possibly at ECE or ASBMR, although unconfirmed).

RAD-1901 holds enormous value in MBC

We estimate significant value for RAD-1901 in estrogen receptor positive metastatic breast cancer (MBC), targeting a \$1.4B endocrine therapy market. Roche's ARN-810 has a similar mechanism of action and demonstrated high clinical benefit (41%) in MBC patients, but a high rate of diarrhea (63%) and one case of pulmonary embolism. Although RAD-1901 is early, we anticipate similar efficacy to ARN-810 but better safety since current data in healthy volunteers do not report any significant SAEs, including diarrhea. We expect the first data for RAD-1901 in MBC patients to be reported in 2015, which could drive major upside for the stock.

Raise PT to \$70, maintain BUY rating

We are raising our PT to \$70 from \$40 based on consideration of our existing NPV valuation and inclusion of an EV/S methodology. We utilize an EV/S multiple of 4.25 (BTK average 6.5) applied to peak sales estimates to abaloparatide and RAD-1901 in the US and ex-US, and increase our probability of approval to 85% for abaloparatide and 35% for RAD-1901, based on greater confidence in both programs after reviewing existing clinical data.

We utilize different types of valuation methodologies for companies in our coverage universe, depending on the development stage, number of validated clinical programs, profitability, and other factors. Our methodologies often include probability adjusted NPV, EV/S, DCF and P/E. We find that probability adjusted NPV and EV/S produce outputs that are more reflective of a fair value for the stock price than DCF and P/E for small-mid cap companies that are not yet profitable. We also find that a combination of the probability adjusted NPV and EV/S methodologies can be more helpful in evaluating share price for small cap companies, especially when they have multiple assets, with at least one validated by positive Ph 3 data. Once one asset in the pipeline is validated, we believe that an EV/S approach on its own or combined with a probability adjusted NPV produces more useful outputs. Importantly, both our probability adjusted NPV and EV/S methodologies utilize probability adjustments estimating the success of abaloparatide and RAD-1901. Therefore, given the recent positive Ph 3 data with abaloparatide, we are raising our PT to \$70, the average of our probability adjusted NPV and EV/S methodologies.

Figure 1: RDUS valuation

Product	Peak Sales (\$MM)	Year	NPV at launch	Estimated launch	Time to launch	Probability Adjustment	Current Value (\$MM)	Scenario probability	Value / Share	Value / Share (EV/Sales)
abaloparatide										
US	\$822	2022	\$1,364	6/1/2016	1.4	85%	\$949	100%	\$33	\$47
Ex-US - co-promote	\$346	2021	\$429	1/1/2017	2.0	85%	\$266	50%	\$5	\$11
Ex-US - royalty	\$346	2021	\$201	1/1/2017	2.0	85%	\$137	50%	\$2	\$11
Total abaloparatide							\$1,216		\$40	\$69
RAD-1901										
US	\$467	2023	\$670			35%	\$234		\$8	\$10
Ex-US	\$427	2023	\$188			35%	\$66		\$0	\$9
Total RAD-1901							\$300		\$8	\$19
Total Product Value							\$1,216		\$48	\$87
Cash							70		\$2	\$2
Total Equity Value							1,286		\$50	\$90
Shares Outstanding (MM)							29			

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

Source: Canaccord Genuity estimates

Figure 2: RDUS income statement

Revenues	2013A	1Q14A	2Q14A	3Q14A	4Q14E	2014E	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	2013A	1Q14A	2Q14A	3Q14A	4Q14E	2014E	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	60,536	9,717	10,618	13,817	14,926	49,078	74,464	59,354	55,796	65,122	84,196	117,620
abaloparatide-SC	45,977	8,107	9,728	10,132	12,158	40,126	27,052	18,937	13,256	13,256	13,256	13,256
abaloparatide-TD	11,459	185	278	523	785	1,770	31,380	21,966	15,376	10,763	7,534	5,274
RAD1901	-	-	-	1,027	1,000	2,027	12,100	14,520	23,232	37,171	59,474	95,158
RAD140	-	-	-	-	-	-	-	-	-	-	-	-
other	3,100	1,425	1,710	819	983	4,937	3,932	3,932	3,932	3,932	3,932	3,932
General and administrative	6,829	2,139	3,070	2,836	2,700	10,745	13,200	57,484	85,902	102,993	133,697	166,134
Total Operating Expense	67,365	11,856	13,688	16,653	17,626	59,823	87,664	116,838	141,698	168,115	217,893	283,754
EBITDA												
Operating income	(67,365)	(11,856)	(13,688)	(16,653)	(17,626)	(59,823)	(87,664)	(51,142)	69,754	198,083	257,475	306,946
Other income (expense), net	9,085	(2,233)	1,727	(802)	(802)	(2,110)	(5,824)	(2,110)	(5,824)	(2,110)	(5,824)	(2,110)
Loss on retirement of note payable			(203)									
Interest (expense) income, net	(2,410)	(399)	(445)	24	24	(796)	(1,544)	(796)	(1,544)	(796)	(1,544)	(796)
Accretion of preferred stock		(4,969)	(4,031)									
Pre-tax income (GAAP)	(60,690)	(19,457)	(16,640)	(17,431)	(18,404)	(71,932)	(95,032)	(54,048)	62,386	195,177	250,107	304,040
Pre-tax income (non-GAAP)												
Taxes (GAAP)	-	-	-	-	-	-	-	-	23,083	72,215	92,540	112,495
Tax rate (GAAP)	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%	37%
Net Income (GAAP)	(60,690)	(19,457)	(16,640)	(17,431)	(18,404)	(71,932)	(95,032)	(54,048)	39,303	122,961	157,568	191,545
GAAP EPS (diluted)	(\$3.97)	(\$50.45)	(\$2.22)	(\$0.59)	(\$0.79)	(\$54.05)	(\$3.06)	(\$1.52)	\$1.05	\$3.14	\$3.83	\$4.43
Diluted shares outstanding	15,278	386	7,500	29,746	23,200	15,208	31,539	35,562	37,340	39,207	41,167	43,226

Source: Company reports and Canaccord Genuity estimates

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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 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 than 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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Rating	Coverage Universe		IB Clients
	#	%	%
Buy	658	61.38%	32.67%
Hold	319	29.76%	11.60%
Sell	43	4.01%	0%
Speculative Buy	52	4.85%	59.62%
	1072*	100.0%	

*Total includes stocks that are Under Review

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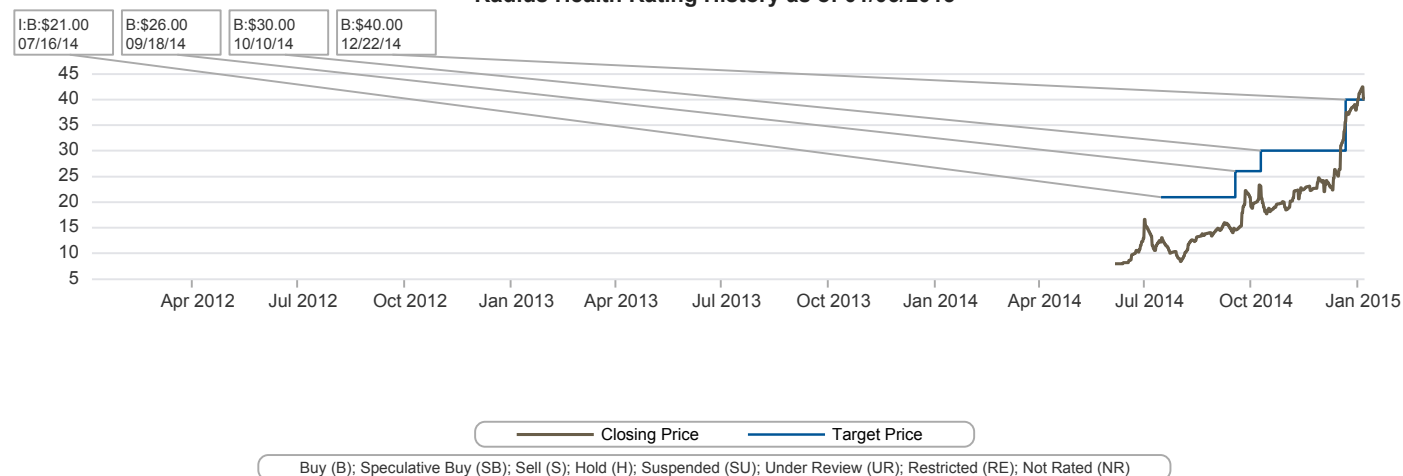
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