

US Equity Research

6 May 2015

BUY

unchanged

PRICE TARGET US\$70.00

unchanged

Price (6-May) US\$36.03

Ticker RDUS-NASDAQ

52-Week Range (US\$): 7.46 - 51.22
 Avg Daily Vol (M): 277.6
 Shares Out. (M): 29.7
 Market Cap (US\$M): 1,072

| FYE Dec | 2014A | 2015E | 2016E |
|--------------------|---------|---------|--------|
| Revenue (US\$M) | 0.0 | 0.0 | 82.9 |
| Previous | 0.0 | 0.0 | 82.1 |
| EPS Adj&Dil (US\$) | (53.81) | (2.31)↑ | (1.19) |
| Previous | (53.81) | (2.54) | (1.19) |

| Quarterly Revenue | Q1 | Q2 | Q3 | Q4 |
|-------------------|------|-----|-----|-----|
| 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 |
|-----------------------|---------|--------|--------|--------|
| 2014A | (50.45) | (2.22) | (0.59) | (0.55) |
| 2015E | (0.47)A | (0.66) | (0.58) | (0.60) |
| 2016E | - | - | - | - |



Source: FactSet

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

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Estimates Revised

Abaloparatide moves forward toward NDA/MAA submission 2H15; top-line data for RAD1901 at ASCO

Expect top-line data for ACTIVEExtend 2Q15, on track for NDA, MAA submission 2H15

Radius will report top-line data on its ACTIVEExtend trial, which will evaluate 6 months of alendronate post 18 months of either abaloparatide or placebo, by 2Q15, and is currently on track for NDA and MAA submission by 2H15, with a commercialization date sometime in 2016. We expect continued BMD advantage and possible fracture reduction vs. placebo, which would put the company in a favorable position going into regulatory approval as the agency has already validated this 24-month endpoint as acceptable. Additionally, recent post-hoc analysis of the ACTIVE trial demonstrated a significant 72% reduction in wrist fractures, adding to the list of positive data that has already been reported with the drug, including a high 86% vertebral fracture risk reduction, a 43% reduction in fractures at non-vertebral sites, and significant difference in time to first fracture vs. Forteo, which we believe bodes well for regulatory approval as well as drug commercialization.

RAD1901 trial design at ASCO 2015

Radius will present the trial design for RAD1901 in a phase 1 study in metastatic breast cancer at ASCO in late May, but we **do not** expect efficacy data. The session where Radius is presenting does not allow for discussion of efficacy data, only trial design, including potential update on enrollment. It is possible that efficacy data for RAD1901 in metastatic breast cancer may surface at the San Antonio Breast Cancer Symposium in December, but we await updates from the company. Radius also plans to initiate phase 1 clinical development in the European Union for RAD1901 in metastatic breast cancer patients in 2015, which will mainly focus on pharmacodynamic properties of the compound in its engagement with estrogen receptors via FES-PET scans.

Abaloparatide TD patch moves into the clinic in 2H15

Radius plans on starting its phase 1 trial of abaloparatide TD patch in 2H15, which we believe allows a timely rollout of the compound shortly after approval of the SQ formulation. We remind investors that although the company can only bridge patients onto the new formulation after FDA approval of the SQ injection, human PK comparability studies can be started prior to approval. Additionally, we look forward to updates on the TD patch optimization on May 11 at Transdermal Drug Delivery Conference, which can provide further PK updates for the new formulation.

Maintain BUY, \$70 price target

We maintain our BUY rating, \$70 price target, and adjust our 2015/2016 estimated EPS based on 1Q15 earnings. We also conservatively decreased our abaloparatide sales estimate after taking a closer look at the current Forteo market, but that does not change our current price target through our EV/sales valuation methodology.

Figure 1: RDUS income statement

| | 2013A | 2014A | 1Q15A | 2Q15E | 3Q15E | 4Q15E | 2015E | 2016E | 2017E | 2018E | 2019E | 2020E |
|------------------------------------|-----------------|------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|----------------|
| Revenues | | | | | | | | | | | | |
| abaloparatide - US | | | | | | | | 82,902 | 122,229 | 165,478 | 212,938 | 264,914 |
| abaloparatide - Ex-US | | | | | | | | - | 90,548 | 204,751 | 251,503 | 298,717 |
| Total | | | | | | | | 82,902 | 212,777 | 370,229 | 464,441 | 563,631 |
| Income Statement | 2013A | 2014A | 1Q15A | 2Q15E | 3Q15E | 4Q15E | 2015E | 2016E | 2017E | 2018E | 2019E | 2020E |
| Total Revenue | - | - | - | - | - | - | - | 82,902 | 146,677 | 265,806 | 341,204 | 420,247 |
| COGS | - | - | - | - | - | - | - | 16,580 | 29,335 | 53,161 | 68,241 | 84,049 |
| Gross Profit | - | - | - | - | - | - | - | 66,322 | 117,341 | 212,645 | 272,963 | 336,197 |
| Operating Expenses | | | | | | | | | | | | |
| Research and development | 60,536 | 45,719 | 11,559 | 16,270 | 15,173 | 13,525 | 56,527 | 47,591 | 47,070 | 57,626 | 77,561 | 111,588 |
| General and administrative | 6,829 | 13,674 | 4,756 | 4,956 | 5,156 | 5,356 | 20,224 | 58,031 | 47,670 | 59,806 | 76,771 | 94,556 |
| Total Operating Expense | 67,365 | 59,393 | 16,315 | 21,226 | 20,329 | 18,881 | 76,751 | 105,622 | 94,740 | 117,432 | 154,332 | 206,143 |
| EBITDA | | | | | | | | | | | | |
| Operating income | (67,365) | (59,393) | (16,315) | (21,226) | (20,329) | (18,881) | (76,751) | (39,301) | 22,602 | 95,212 | 118,631 | 130,054 |
| Other income (expense), net | 9,085 | (2,126) | (50) | (2,126) | (50) | (2,126) | (4,352) | (2,126) | (4,352) | (2,126) | (4,352) | (2,126) |
| Loss on retirement of note payable | | | | | | | | | | | | |
| Interest (expense) income, net | (2,410) | (768) | (692) | (768) | (692) | (768) | (2,920) | (768) | (2,920) | (768) | (2,920) | (768) |
| Accretion of preferred stock | | | | | | | | | | | | |
| Pre-tax income (GAAP) | (60,690) | (71,501) | (17,057) | (24,120) | (21,071) | (21,775) | (84,023) | (42,195) | 15,330 | 92,318 | 111,359 | 127,160 |
| Pre-tax income (non-GAAP) | | | | | | | | | | | | |
| Taxes (GAAP) | - | - | - | - | - | - | - | - | 5,672 | 34,158 | 41,203 | 47,049 |
| Tax rate (GAAP) | 37% | 37% | 37% | 37% | 37% | 37% | 37% | 37% | 37% | 37% | 37% | 37% |
| Net Income (GAAP) | (60,690) | (71,501) | (17,057) | (24,120) | (21,071) | (21,775) | (84,023) | (42,195) | 9,658 | 58,161 | 70,156 | 80,111 |
| GAAP EPS (diluted) | (\$3.97) | (\$53.81) | (\$0.47) | (\$0.66) | (\$0.58) | (\$0.60) | (\$2.31) | (\$1.19) | \$0.26 | \$1.48 | \$1.70 | \$1.85 |
| Diluted shares outstanding | 15,278 | 17,578 | 36,269 | 36,305 | 36,342 | 36,378 | 31,539 | 35,562 | 37,340 | 39,207 | 41,167 | 43,226 |

Source: Company Reports, Canaccord Genuity estimates

Figure 2: RDUS Valuation

| Product | Peak Sales (\$MM) | Year | NPV at launch | Estimated launch | Time to launch | Probability Adjustment | Current Value (\$MM) | Scenario probability | Value / Share (EV/Sales) |
|-------------------------|-------------------|------|---------------|------------------|----------------|------------------------|----------------------|----------------------|--------------------------|
| abaloparatide | | | | | | | | | |
| US | \$358 | 2022 | \$561 | 6/1/2016 | 1.1 | 85% | \$382 | 100% | \$21 |
| Ex-US - co-promote | \$346 | 2021 | \$390 | 1/1/2017 | 1.7 | 85% | \$250 | 50% | \$11 |
| Ex-US - royalty | \$346 | 2021 | \$189 | 1/1/2017 | 1.7 | 85% | \$133 | 50% | \$11 |
| Total abaloparatide | | | | | | | \$632 | | \$44 |
| RAD-1901 | | | | | | | | | |
| US | \$467 | 2023 | \$670 | | | 35% | \$235 | | \$10 |
| Ex-US | \$427 | 2023 | \$188 | | | 35% | \$66 | | \$9 |
| Total RAD-1901 | | | | | | | \$300 | | \$19 |
| Total Product Value | | | | | | | \$632 | | \$64 |
| Cash | | | | | | | 243 | | \$7 |
| Total Equity Value | | | | | | | 875 | | \$70 |
| Shares Outstanding (MM) | | | | | | | 36 | | |

| | |
|----------------|------|
| Risk-Free Rate | 2.0% |
| Beta | 1.8 |
| Risk Premium | 6% |
| Discount Rate | 12% |
| EV/Sales | 5.5 |

Source: Company Reports, Canaccord Genuity estimates

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Target Price / Valuation Methodology:

Radius Health - RDUS

Our \$70 price target is based on an adjusted 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.

Distribution of Ratings:

Global Stock Ratings (as of 05/06/15)

| Rating | Coverage Universe | | IB Clients |
|-----------------|-------------------|--------|------------|
| | # | % | % |
| Buy | 572 | 57.55% | 33.22% |
| Hold | 337 | 33.90% | 17.51% |
| Sell | 40 | 4.02% | 2.50% |
| Speculative Buy | 45 | 4.53% | 62.22% |
| | 994* | 100.0% | |

*Total includes stocks that are Under Review

Canaccord Genuity Ratings System

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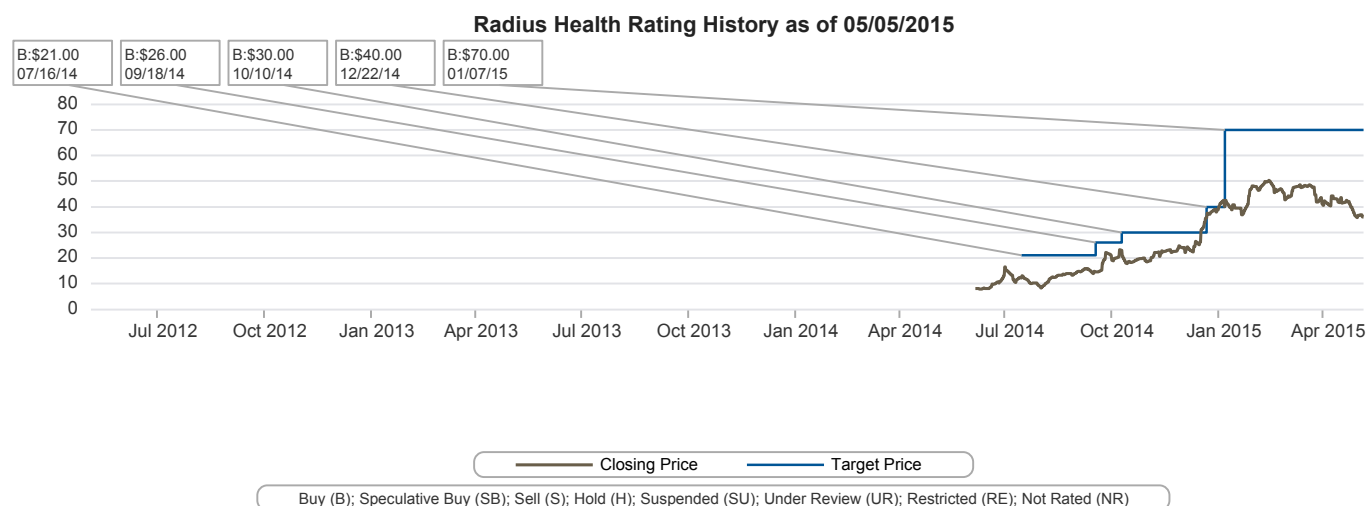
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