Radius Health, Inc.
Form 424B5
January 20, 2015

Use these links to rapidly review the document
TABLE OF CONTENTS
TABLE OF CONTENTS

Table of Contents

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Registration No. 333-201610

The information in this preliminary prospectus supplement and the accompanying prospectus, relating to an effective registration statement under the Securities Act of 1933, as amended, is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell nor do they seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion, Dated January 20, 2015

PRELIMINARY PROSPECTUS SUPPLEMENT
(To the Prospectus dated January 20, 2015)

3,500,000 Shares

Radius Health, Inc.

Common Stock

We are offering 3,500,000 shares of our common stock. Our common stock is listed on The NASDAQ Global Market under the symbol "RDUS." On January 16, 2015, the last reported sale price of our common stock was $39.39 per share.

See "Risk Factors" beginning on page S-5 to read about factors you should consider before buying shares of our common stock.

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus supplement or accompanying prospectus. Any representation to the contrary is a criminal offense.

	Per Share	Total
Public offering price	$	$

Underwriting discount(1)	$	$
Proceeds, before expenses, to Radius Health, Inc.	$	$

(1) See "Underwriting" beginning on page S-13 for additional information regarding underwriting compensation.

We have granted the underwriters a 30-day option to purchase up to an additional 525,000 shares from Radius Health, Inc. at the public offering price less the underwriting discount.

The underwriters expect to deliver the shares against payment on , 2015.

Goldman, Sachs & Co. **BofA Merrill Lynch**

Cowen and Company

Prospectus Supplement dated , 2015.

Table of Contents

TABLE OF CONTENTS

Prospectus Supplement

Accompanying Prospectus

You should rely only on the information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectuses we have prepared in connection with this offering. Neither we nor any of the underwriters have authorized any other person to provide you with any information that is different. If anyone provides you with different or inconsistent information, you should not rely on it. We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the offering of shares of our common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement must inform themselves about, and observe any restrictions relating to, the offering of shares of our common stock and the distribution of this prospectus supplement outside the United States. This prospectus supplement does not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, as a "well-known seasoned issuer" as defined in Rule 405 under the Securities Act of 1933, as amended, using a "shelf" registration process and consists of two parts. The first part is this prospectus supplement, including the documents incorporated by reference, which describes the specific terms of this offering. The second part is the accompanying prospectus, including the documents incorporated therein by reference, which provides more general information. Generally, when we refer only to the "prospectus," we are referring to both parts of this document combined. Before you invest, you should carefully read this prospectus supplement, the accompanying prospectus, all information incorporated by reference herein and therein, as well as the additional information described under "Where You Can Find More Information; Incorporation by Reference" on page S-20 of this prospectus supplement. These documents contain information you should consider when making your investment decision. This prospectus supplement may add, update or change information contained in the accompanying prospectus. To the extent that any statement we make in this prospectus supplement is inconsistent with statements made in the accompanying prospectus or any documents incorporated by reference, the statements made in this prospectus supplement will be deemed to modify or supersede those made in the accompanying prospectus and such documents incorporated by reference.

Unless otherwise indicated, information contained in this prospectus supplement, the accompanying prospectus or the documents incorporated by reference, concerning our industry and the markets in which we operate, including our general expectations and market position, market opportunity and market share, is based on information from our own management estimates and research, as well as from industry and general publications, and research, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. In addition, assumptions and estimates of our and our industry's future performance are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in "Risk Factors" in this prospectus supplement, the accompanying prospectus and in our Amendment No. 1 to Annual Report on Form 10-K/A for the fiscal year ended December 31, 2013 and our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2014, which are incorporated by reference into this prospectus supplement. These and other important factors could cause our future performance to differ materially from our assumptions and estimates. See "Special Note Regarding Forward-Looking Statements."

RADIUS HEALTH and our logo are two of our trademarks that are used in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference. This prospectus supplement, the accompanying prospectus and the documents incorporated by reference also include trademarks, tradenames and service marks that are the property of other organizations. Solely for convenience, trademarks and tradenames referred to in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference appear without the ® and symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or that the applicable owner will not assert its rights, to these trademarks and tradenames.

Unless stated otherwise or the context otherwise indicates, all references in this prospectus supplement or the accompanying prospectus to "Radius," "the Company," "we," "us" or "our" refer to Radius Health, Inc.

Table of Contents

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information about us, this offering and information appearing elsewhere in this prospectus supplement, in the accompanying prospectus and in the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. This summary is not complete and does not contain all of the information you should consider before investing in our common stock pursuant to this prospectus supplement and the accompanying prospectus. Before making an investment decision, to fully understand this offering and its consequences to you, you should carefully read this entire prospectus supplement and the accompanying prospectus, including "Risk Factors" beginning on page S-5 of this prospectus supplement, the financial statements and related notes, and the other information that we incorporate by reference into this prospectus supplement, including the section "Risk Factors" in our Amendment No. 1 to Annual Report on Form 10-K/A for the fiscal year ended December 31, 2013 and our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2014.

Radius Health, Inc.

Our Company

We are a science-driven biopharmaceutical company focused on developing new therapeutics for patients with osteoporosis as well as other serious endocrine-mediated diseases. Our lead development candidate is the investigational drug abaloparatide (BA058), a bone anabolic for the potential treatment of osteoporosis delivered via subcutaneous injection, which we refer to as abaloparatide-SC. We announced the 18-month top-line data from our Phase 3 clinical trial evaluating abaloparatide-SC for potential use in the reduction of fractures in postmenopausal osteoporosis in December 2014. Patients from the abaloparatide and placebo groups from our Phase 3 clinical trial are eligible to continue in a six-month extension study, in which they are receiving an approved alendronate therapy for osteoporosis management. We currently anticipate the first results from the ongoing six-month extension study to be available in the second quarter of 2015. Following completion of the extension study, we plan to submit a new drug application, or NDA, in the United States, and a marketing authorization application, or MAA, in Europe, during the second half of 2015. We hold worldwide commercialization rights to abaloparatide-SC, other than in Japan, and subject to a regulatory review and favorable regulatory outcome, we anticipate our first commercial sales of abaloparatide-SC will take place in 2016. We are leveraging our investment in abaloparatide-SC to develop a line extension that is designed to improve patient convenience by enabling administration of abaloparatide through an investigational short-wear-time transdermal patch, which we refer to as abaloparatide-TD.

Our current clinical product portfolio also includes the investigational drug RAD1901, a selective estrogen receptor down-regulator/degrader, or SERD, and the investigational drug RAD140, a nonsteroidal selective androgen receptor modulator, or SARM. We are developing RAD1901 at higher doses for the potential treatment of metastatic breast cancer, and intend to advance its development with the initiation of Phase 1 clinical trials, including a maximum tolerated dose study that has commenced patient dosing and a Phase 1 clinical trial in metastatic breast cancer patients that, as of the date of this prospectus supplement, is open for patient screening and enrollment. At lower doses, RAD1901 acts as a selective estrogen-receptor modulator, or SERM. Low-dose RAD1901 has shown potential to be effective for the treatment of vasomotor symptoms such as hot flashes in a successful Phase 2 proof of concept study. We intend to commence a Phase 2b clinical trial in vasomotor symptoms in the second half of 2015.

Table of Contents

Recent Developments

In December 2014, we announced positive 18-month top-line data from our Phase 3 clinical trial of the investigational drug abaloparatide-SC for potential use in the reduction of fractures in postmenopausal osteoporosis that showed that on the primary endpoint, abaloparatide-SC (n=690, fracture rate 0.72%) achieved a statistically significant 83% reduction of incident vertebral fractures as compared to the placebo-treated group (n=711, fracture rate 4.36%) ($p<0.0001$). The open-label teriparatide injection treatment group (n=717, fracture rate 0.98%) showed a statistically significant 78% reduction of incident vertebral fractures as compared to the placebo-treated group ($p<0.0001$). On the secondary endpoints, as compared to placebo, abaloparatide-SC achieved a statistically significant fracture-rate reduction of 43% in the adjudicated non-vertebral fracture subset of patients; a statistically significant reduction of 45% in the adjudicated clinical fracture group, which includes both vertebral and non-vertebral fractures; and a statistically significant difference in the time to first incident non-vertebral fracture in both the adjudicated non-vertebral fracture ($p=0.0489$) and the clinical fracture subset of patients ($p=0.0112$). The open-label teriparatide injection treatment group, as compared to placebo, achieved a fracture-rate reduction of 28% in the adjudicated non-vertebral fracture subset of patients and a reduction of 29% in the adjudicated clinical fracture group. The fracture-rate reduction observed in the abaloparatide-SC treatment group, as compared to open-label teriparatide, was not statistically significant.

In January 2015, the U.S. Food and Drug Administration, or FDA, provided us with comments on the draft Statistical Analysis Plan, or SAP, that was used for the analysis of the top-line data from the Phase 3 clinical trial. In its correspondence, FDA made several recommendations for changes in the data analyses undertaken in the SAP. We have performed these analyses and believe that, as noted below, there are no material changes from the top-line results that we announced in December 2014. Patients from the abaloparatide and placebo groups from our Phase 3 clinical trial are eligible to continue in a six-month extension study, in which they are receiving an approved alendronate therapy for osteoporosis management. We currently anticipate the first results from the ongoing six-month extension study to be available in the second quarter of 2015. We believe that the abaloparatide-SC program is on-track for submission of an NDA for abaloparatide-SC to the FDA, and submission of an MAA to the European Medicines Agency, or EMA, in the second half of 2015. However, FDA and EMA have not reviewed any of the data from the ACTIVE trial. The results from the ACTIVE trial and from the first six months of the ACTIVExtend trial, together with the entire data set from the abaloparatide development program, are subject to regulatory review, and only FDA and EMA can separately determine whether the data in the new drug application, once submitted, support approval of the investigational drug abaloparatide-SC for its potential use in the reduction of fractures in postmenopausal osteoporosis.

In its January 2015 correspondence, the FDA recommended that the primary endpoint of incident vertebral fracture reduction be performed excluding worsening vertebral fractures and including only new vertebral fractures. Using the FDA-recommended analysis, on the primary endpoint of reduction of new vertebral fractures (excluding worsening), abaloparatide-SC (n=690, fracture rate 0.58%) achieved a statistically significant 86% reduction as compared to the placebo-treated group (n=711, fracture rate 4.22%) ($p<0.0001$). The open-label teriparatide injection treatment group (n=717, fracture rate 0.84%) showed a statistically significant 80% reduction of new vertebral fractures (excluding worsening) as compared to the placebo-treated group ($p<0.0001$). The FDA also recommended, for the secondary endpoint of non-vertebral fractures, that our definition was generally acceptable provided that sternal (breast bone) and patellar (knee cap) fractures were excluded. In the previously announced top-line data for the secondary endpoint of non-vertebral fracture reduction noted above, we had excluded sternum and patella, and abaloparatide-SC (n=824, Kaplan-Meier estimated, or KM, fracture rate 2.7%) achieved a statistically significant reduction compared to the placebo-treated group (n=821, KM fracture rate 4.7%), and

Table of Contents

the hazard ratio for abaloparatide vs. placebo is 0.57 (p=0.0489); the open label teriparatide injection treatment group (n=818, KM fracture rate 3.3%) had a hazard ratio of 0.72 (p=NS) compared to the placebo-treated group. The FDA also recommended, for the secondary endpoint of bone mineral density, or BMD, that we use an ANCOVA approach with the last observation carried forward for missing data. The Mixed-Effect Model For Repeated Measures, or MMRM, method, which was used in the BMD secondary endpoint in the top-line data announced in December 2014, is to be applied for sensitivity analysis.

Corporate Information

Our principal executive offices are located at 950 Winter Street, Waltham, Massachusetts 02451, and our telephone number is (617) 551-4000. Our website address is *www.radiuspharm.com*. The information contained in, or accessible through, our website should not be considered a part of this prospectus supplement.

Table of Contents

THE OFFERING

Common stock offered by us	3,500,000 shares
Common stock to be outstanding immediately after this offering	36,376,321 shares (or 36,901,321 shares if the underwriters exercise their option to purchase additional shares in full)
Underwriters' option	The underwriters have a 30-day option to purchase up to 525,000 additional shares of our common stock.
Use of proceeds	We intend to use the net proceeds of this offering for the development of our product candidates and for other general corporate and working capital purposes. Please see "Use of Proceeds" on page S-8 of this prospectus supplement.
Risk factors	See "Risk Factors" beginning on page S-5 of this prospectus supplement, in the accompanying prospectus and in the documents incorporated by reference into this prospectus supplement and the accompanying prospectus, for a discussion of factors that you should read and consider before investing in our common stock.
NASDAQ Global Market symbol	"RDUS"

The number of shares of our common stock to be outstanding after this offering is based on 29,747,797 shares of our common stock outstanding as of September 30, 2014 and reflects the issuance of 3,128,524 shares of our common stock in connection with the public offering of our common stock in October 2014, and excludes:

- 2,377,693 shares of common stock issuable upon exercise of stock options outstanding as of September 30, 2014, at a weighted average exercise price of $7.22 per share;
- 1,871,640 shares of common stock reserved for issuance under our 2011 equity incentive plan as of September 30, 2014; and
- 1,379,671 shares of common stock issuable upon exercise of warrants outstanding as of September 30, 2014 at a weighted average exercise price of $13.97 per share.

Unless otherwise indicated, this prospectus supplement reflects and assumes the following:

- no exercise of the outstanding options and warrants described above; and
- no exercise by the underwriters of their option to purchase additional shares of our common stock.

Table of Contents

RISK FACTORS

Investing in our common stock involves a high degree of risk. Before investing in our common stock, you should consider carefully the risks described below, together with the other information contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein or therein, including the risks and uncertainties discussed under "Risk Factors" in our Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2014, which are incorporated by reference into this prospectus supplement. If any of the risks incorporated by reference or set forth below occur, our business, financial condition, results of operations and future growth prospects could be materially and adversely affected. In these circumstances, the market price of our common stock could decline, and you may lose all or part of your investment.

Risks Related to this Offering

Purchasers in this offering will experience immediate and substantial dilution in the book value of their investment.

The public offering price of our common stock is substantially higher than the net tangible book value per share of our common stock before giving effect to this offering. Accordingly, if you purchase our common stock in this offering, you will incur immediate substantial dilution of approximately $33.73 per share, representing the difference between the public offering price and our as adjusted net tangible book value as of September 30, 2014, after giving effect to this offering and our public offering of 3,128,524 shares of common stock at $18.25 per share in October 2014. Furthermore, if outstanding options or warrants are exercised, you could experience further dilution. For a further description of the dilution that you will experience immediately after this offering, see the section in this prospectus supplement entitled "Dilution."

A substantial number of shares of common stock may be sold in the market following this offering, which may cause the market price of our common stock to decline.

Sales of a substantial number of shares of our common stock in the public market following this offering could cause the market price of our common stock to decline. A substantial number of the outstanding shares of our common stock are, and the shares of common stock sold in this offering upon issuance will be, freely tradable without restriction or further registration under the Securities Act of 1933, as amended.

Our directors and executive officers, together with their affiliates, have substantial influence over us and could delay or prevent a change in corporate control.

Our directors and executive officers, together with their affiliates, beneficially owned approximately 13.6 million shares of our common stock as of December 31, 2014. In January 2015, affiliates of one of our directors, Morana Jovan-Embiricos, Ph.D., distributed approximately 4.2 million shares of our common stock and warrants to purchase approximately 0.7 million shares of our common stock to their respective partners. Although our directors and executive officers, together with their affiliates, beneficially own a substantially lesser number of shares of our outstanding common stock after these distributions, these stockholders, acting together, would have the ability to significantly influence the outcome of matters submitted to our stockholders for approval, including the election of directors and any merger, consolidation or sale of all or substantially all of our assets. In addition, these stockholders, acting together, have the ability to significantly influence the management and affairs of our company. Accordingly, this concentration of ownership might harm the market price of our common stock by:

- delaying, deferring or preventing a change in corporate control;

Table of Contents

impeding a merger, consolidation, takeover or other business combination involving us; or

discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control of us.

We have broad discretion to determine how to use the funds raised in this offering, and may use them in ways that may not enhance our operating results or the market price of our common stock.

Our management will have broad discretion over the use of proceeds from this offering, and we could spend the proceeds from this offering in ways our stockholders may not agree with or that do not yield a favorable return, if at all. We intend to use the net proceeds from this offering for the development of our product candidates and for other general corporate and working capital purposes. However, our use of these proceeds may differ substantially from our current plans. If we do not invest or apply the proceeds of this offering in ways that improve our operating results, we may fail to achieve expected financial results, which could cause the market price of our common stock to decline.

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents that are incorporated by reference into this prospectus supplement and the accompanying prospectus, contain or incorporate by reference "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. You can generally identify these forward-looking statements by forward-looking words such as "anticipates," "believes," "expects," "intends," "future," "could," "estimates," "plans," "would," "should," "potential," "continues" and similar words or expressions (as well as other words or expressions referencing future events, conditions or circumstances). These forward-looking statements involve risks, uncertainties and other important factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements, including, but not limited to:

- the progress of, timing of and amount of expenses associated with our research, development and commercialization activities;
- the success of our clinical studies for our product candidates;
- our ability to obtain U.S. and foreign regulatory approval for our product candidates and the ability of our product candidates to meet existing or future regulatory standards;
- our expectations regarding federal, state and foreign regulatory requirements;
- the therapeutic benefits and effectiveness of our product candidates;
- the safety profile and related adverse events of our product candidates;
- our ability to manufacture sufficient amounts of abaloparatide, RAD1901, and RAD140 for commercialization activities with target characteristics following regulatory approvals;
- our plans with respect to collaborations and licenses related to the development, manufacture or sale of our product candidates;
- our expectations as to future financial performance, expense levels and liquidity sources;
- our ability to compete with other companies that are or may be developing or selling products that are competitive with our product candidates;
- anticipated trends and challenges in our potential markets; and
- our ability to attract and motivate key personnel.

All forward-looking statements contained herein are expressly qualified in their entirety by this cautionary statement, the risk factors set forth under the heading "Risk Factors" and elsewhere in this prospectus supplement, the accompanying prospectus and in the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. These forward-looking statements speak only as of

the date of this prospectus supplement. Except to the extent required by applicable laws and regulations, we undertake no obligation to update these forward-looking statements to reflect new information, events or circumstances after the date of this prospectus supplement or to reflect the occurrence of unanticipated events. In light of these risks and uncertainties, the forward-looking events and circumstances described in this prospectus supplement may not occur and actual results could differ materially from those anticipated or implied in the forward-looking statements. Accordingly, you are cautioned not to place undue reliance on these forward-looking statements.

Table of Contents

USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately $129.2 million (or approximately $148.7 million if the underwriters exercise their option to purchase additional shares in full), based on the offering price of $39.39 per share, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

A $1.00 increase (decrease) in the assumed public offering price of $39.39 per share would increase (decrease) our net proceeds from this offering by approximately $3.3 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus supplement, remains the same and after deducting the estimated underwriting discounts and commissions. An increase (decrease) of one million shares in the number of shares offered by us, as set forth on the cover page of this prospectus supplement, would increase (decrease) our net proceeds from this offering by approximately $37.0 million, assuming no change in the assumed public offering price per share and after deducting estimated underwriting discounts and commissions.

We intend to use the net proceeds we receive from this offering to complete development of the investigational drug abaloparatide-SC, prepare applications seeking regulatory approvals for abaloparatide-SC in the United States and Europe and to continue to build commercial infrastructure, inventory and manufacturing capability for the commercialization of abaloparatide-SC, if approved, as well as to fund further development of our other product candidates, and for other general corporate and working capital purposes.

We have not determined the amounts we plan to spend in any of the areas identified above or the timing of these expenditures. As a result, our management will have broad discretion to allocate the net proceeds to us from this offering, and investors will be relying on the judgment of our management regarding the application of the proceeds from this offering. We reserve the right to change the use of these proceeds as a result of certain contingencies such as competitive developments, the results of our commercialization efforts, acquisition and investment opportunities and other factors. Pending use of the proceeds as described above, we intend to invest the net proceeds of this offering in short-term, interest-bearing, investment-grade securities or certificates of deposit.

Table of Contents

PRICE RANGE OF COMMON STOCK

Our common stock has been publicly traded on The NASDAQ Global Market under the symbol "RDUS" since our initial public offering on June 5, 2014. Prior to our initial public offering, there was no public market for our common stock. The following table sets forth, for the periods indicated, the high and low intraday sale prices of our common stock as reported by The NASDAQ Global Market.

	HIGH	LOW
2015		
First Quarter (through January 16, 2015)	$ 44.67	$ 38.12
2014		
Fourth Quarter (through December 31, 2014)	$ 42.57	$ 16.55
Third Quarter (through September 30, 2014)	$ 24.28	$ 8.09
Second Quarter (from June 5, 2014)	$ 14.60	$ 7.46

On January 16, 2015, the last reported sale price of our common stock on The NASDAQ Global Market was $39.39. As of January 15, 2015, there were 32,924,535 shares of our common stock outstanding held by approximately 61 holders of record.

Table of Contents

DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We intend to retain future earnings, if any, to finance the operation and expansion of our business, and we do not anticipate paying any cash dividends in the foreseeable future. In addition, unless waived, the terms of our credit facility with Solar Capital Ltd. and Oxford Finance LLC limit our ability to pay cash dividends. Any future determination related to dividend policy will be made at the discretion of our board of directors after considering our financial condition, results of operations, capital requirements, business prospects and other factors the board of directors deems relevant, and subject to the restrictions contained in our current or future financing instruments.

Table of Contents

DILUTION

If you invest in our common stock in this offering, your ownership interest will be immediately diluted to the extent of the difference between the public offering price per share and the as adjusted net tangible book value per share of our common stock after this offering.

As of September 30, 2014, we had a net tangible book value of $23.4 million, or $0.79 per share of common stock. Our net tangible book value per share represents total tangible assets less total liabilities, divided by the number of shares of common stock outstanding at September 30, 2014. After giving effect to the issuance of 3,128,524 shares of our common stock in connection with our public offering of common stock in October 2014, and the net proceeds received in that offering, but prior to giving effect to the adjustments for this offering, we had an as adjusted tangible book value of $76.7 million, or $2.33 per share of common stock, as of September 30, 2014.

After giving further effect to the issuance and sale by us of 3,500,000 shares of common stock in this offering and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2014 would have been approximately $206.0 million, or approximately $5.66 per share. This amount represents an immediate increase in as adjusted net tangible book value of $3.33 per share to our existing stockholders and an immediate dilution in as adjusted net tangible book value of approximately $33.73 per share to new investors purchasing shares of common stock in this offering.

Dilution per share to new investors is determined by subtracting as adjusted net tangible book value per share after this offering from the public offering price per share paid by new investors. The following table illustrates this dilution on a per share basis:

Assumed public offering price per share		$ 39.39
Net tangible book value per share as of September 30, 2014	$ 0.79	
Increase in tangible book value per share attributable to the October 2014 offering	1.54	
As adjusted net tangible book value per share as of September 30, 2014	2.33	
Increase in as adjusted net tangible book value per share attributable to this offering	3.33	
As adjusted net tangible book value per share after this offering		5.66
Dilution per share to new investors participating in this offering		$ 33.73

The information above assumes that the underwriters do not exercise their option to purchase additional shares. If the underwriters exercise their option in full, our as adjusted net tangible book value per share at September 30, 2014, after giving effect to this offering, would have been $6.11 per share, and the dilution in as adjusted net tangible book value per share to investors in this offering would have been $33.28 per share.

The above discussion and table are based on 29,747,797 shares of our common stock outstanding as of September 30, 2014, which does not include the following:

- 3,128,524 shares of common stock issued in connection with our public offering of common stock in October 2014;
- 2,377,693 shares of common stock issuable upon exercise of stock options outstanding as of September 30, 2014, at a weighted average exercise price of $7.22 per share;

Table of Contents

1,871,640 shares of common stock reserved for issuance under our 2011 equity incentive plan as of September 30, 2014; and

1,379,671 shares of common stock issuable upon exercise of warrants outstanding as of September 30, 2014, at a weighted average exercise price of $13.97 per share.

To the extent any of these outstanding options or warrants are exercised, there will be further dilution to new investors. If all of such outstanding options and warrants had been exercised as of September 30, 2014, the as adjusted net tangible book value per share after this offering would be $6.04 and total dilution per share to new investors would be $33.35.

The dilution information discussed above is illustrative only and will change based on the actual public offering price and other terms of this offering determined at pricing. A $1.00 increase (decrease) in the assumed public offering price of $39.39 per share would increase (decrease) our net tangible book value by $3.3 million, the net tangible book value per share after this offering by $0.09 and the dilution per share to new investors by $0.09, assuming the number of shares offered by us, as set forth on the cover page of this prospectus supplement, remains the same, and after deducting the estimated underwriting discounts and commissions. We may also increase or decrease the number of shares we are offering. An increase of one million in the number of shares offered by us would increase the as adjusted net tangible book value by approximately $37.0 million, or $0.84 per share, and would decrease the dilution per share to new investors in this offering by $0.84 per share, assuming that the assumed public offering price remains the same, and after deducting the estimated underwriting discounts and commissions. Similarly, a decrease of one million shares in the number of shares offered by us would decrease the as adjusted net tangible book value by approximately $37.0 million, or $0.89 per share, and would increase the dilution per share to new investors in this offering by $0.89 per share, assuming that the assumed public offering price remains the same, and after deducting the estimated underwriting discounts and commissions. The as adjusted information discussed above is illustrative only and will adjust based on the actual public offering price and other terms of this offering determined at pricing.

Table of Contents

UNDERWRITING

We and the underwriters named below have entered into an underwriting agreement with respect to the shares being offered. Subject to certain conditions, each underwriter has severally agreed to purchase the number of shares indicated in the following table. Goldman, Sachs & Co. and Merrill Lynch, Pierce, Fenner & Smith Incorporated are the representatives of the underwriters.

Underwriters	Number of Shares
Goldman, Sachs & Co	
Merrill Lynch, Pierce, Fenner & Smith Incorporated	
Cowen and Company, LLC	
Total	3,500,000

The underwriters are committed to take and pay for all of the shares being offered, if any are taken, other than the shares covered by the option described below unless and until this option is exercised.

The underwriters have an option to buy up to an additional 525,000 shares from us to cover sales by the underwriters of a greater number of shares than the total number set forth in the table above. They may exercise this option for 30 days. If any shares are purchased pursuant to this option, the underwriters will severally purchase shares in approximately the same proportion as set forth in the table above.

The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters by us. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase 525,000 additional shares.

	No Exercise	Full Exercise
Per Share	$	$
Total	$	$

Shares sold by the underwriters to the public will initially be offered at the public offering price set forth on the cover of this prospectus supplement. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to $ per share from the public offering price. After the initial offering of the shares, the representatives may change the offering price and the other selling terms. The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

We and our officers and directors, together with their affiliated entities, have agreed with the underwriters, subject to certain exceptions, not to dispose of or hedge any of our common stock or securities convertible into or exchangeable for shares of our common stock during the period from the date of this prospectus supplement continuing through the date 90 days after the date of this prospectus supplement, except with the prior written consent of the representatives. This agreement does not apply to any existing employee benefit plans.

Our common stock is publicly traded on The NASDAQ Global Market under the symbol "RDUS".

In connection with the offering, the underwriters may purchase and sell shares of common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering, and a short position represents the amount of such sales that have not been covered by subsequent

Table of Contents

purchases. A "covered short position" is a short position that is not greater than the amount of additional shares for which the underwriters' option described above may be exercised. The underwriters may cover any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to cover the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase additional shares pursuant to the option described above. "Naked" short sales are any short sales that create a short position greater than the amount of additional shares for which the option described above may be exercised. The underwriters must cover any such naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of our common stock, and together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of our common stock. As a result, the price of our common stock may be higher than the price that otherwise might exist in the open market. The underwriters are not required to engage in these activities and may end any of these activities at any time. These transactions may be effected on The NASDAQ Global Market, in the over-the-counter market or otherwise.

The underwriters do not expect sales to discretionary accounts to exceed f