Revance Therapeutics, Inc. Form 424B5 March 19, 2015

PROSPECTUS Filed Pursuant to Rule 424(b)(5)

Registration No. 333-202494

\$50,000,000

Common Stock

We have entered into a certain Sales Agreement, or sales agreement, with Cowen and Company, LLC, or Cowen, relating to shares of our common stock offered by this prospectus. In accordance with the terms of the sales agreement, we may offer and sell shares of our common stock having an aggregate offering price of up to \$50 million from time to time through Cowen.

Our common stock is quoted on The NASDAQ Global Market, or the Exchange, under the symbol "RVNC." The last reported sale price of our common stock on March 3, 2015 was \$15.02 per share.

Sales of our common stock, if any, under this prospectus may be made in sales deemed to be "at-the-market" equity offerings as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, or the Securities Act, including sales made directly on or through the Exchange, the existing trading market for our common stock, sales made to or through a market maker other than on an exchange or otherwise, in negotiated transactions at market prices prevailing at the time of sale or at prices related to such prevailing market prices, and/or any other method permitted by law. Cowen is not required to sell any specific number or dollar amount of securities, but will act as a sales agent using commercially reasonable efforts consistent with its normal trading and sales practices, on mutually agreed terms between Cowen and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement. The compensation to Cowen for sales of common stock sold pursuant to the sales agreement will be an amount up to 3% of the gross proceeds of any shares of common stock sold under the sales agreement. In connection with the sale of the common stock on our behalf, Cowen will be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation of Cowen will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to Cowen with respect to certain liabilities, including liabilities under the Securities Act or the Securities Exchange Act of 1934, as amended, or the Exchange Act. See section titled "Plan of Distribution" on page 14 of this prospectus.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "Risk Factors" on page 4 of this prospectus and as updated in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Sole Book-runner

Cowen and Company

The date of this prospectus is March 18, 2015.

TABLE OF CONTENTS

	Page
ABOUT THIS PROSPECTUS	i
PROSPECTUS SUMMARY	1
THE OFFERING	3
RISK FACTORS	4
SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS	5
USE OF PROCEEDS	7
DILUTION	8
DESCRIPTION OF CAPITAL STOCK	10
PLAN OF DISTRIBUTION	14
LEGAL MATTERS	15
EXPERTS	15
WHERE YOU CAN FIND MORE INFORMATION	15
INCORPORATION OF CERTAIN INFORMATION BY REFERENCE	15

ABOUT THIS PROSPECTUS

This prospectus relates to the offering of our common stock. Before buying any of the common stock that we are offering, we urge you to carefully read this prospectus, together with the information incorporated by reference as described under the headings "Where You Can Find More Information" and "Incorporation of Certain Information by Reference" in this prospectus, and any free writing prospectus or prospectus supplement that we have authorized for use in connection with this offering. These documents contain important information that you should consider when making your investment decision.

This prospectus describes the terms of this offering of common stock and also adds to and updates information contained in the documents incorporated by reference into this prospectus. To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any document incorporated by reference into this prospectus that was filed with the Securities and Exchange Commission, or SEC, before the date of this prospectus, on the other hand, you should rely on the information in this prospectus. If any statement in one of these documents is inconsistent with a statement in another document having a later date — for example, a document incorporated by reference into this prospectus — the statement in the document having the later date modifies or supersedes the earlier statement.

You should rely only on the information contained in or incorporated by reference in this prospectus and in any free writing prospectus or prospectus supplement that we have authorized for use in connection with this offering. We have not, and the sales agent has not, authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the sales agent is not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus, the documents incorporated by reference in this prospectus, and any free writing prospectus or prospectus supplement that we have authorized for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates.

Unless otherwise mentioned or unless the context indicates otherwise, as used in this prospectus, the terms "Revance," "the Company," "we," "us" and "our" refer to Revance Therapeutics, Inc., a Delaware corporation, and, where appropriate, our consolidated subsidiary.

This prospectus and the information incorporated herein and therein by reference include trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus are the property of their respective owners.

i

PROSPECTUS SUMMARY

This summary highlights certain information about us, this offering and selected information contained elsewhere in or incorporated by reference into this prospectus. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in our common stock. For a more complete understanding of our company and this offering, we encourage you to read and consider carefully the more detailed information in this prospectus, including the information incorporated by reference in this prospectus, and the information included in any free writing prospectus or prospectus supplement that we have authorized for use in connection with this offering, including the information under the heading "Risk Factors" in this prospectus on page 4 and in the documents incorporated by reference into this prospectus.

Revance Therapeutics, Inc. is a clinical-stage specialty biopharmaceutical company focused on the development, manufacturing and commercialization of novel botulinum toxin products for multiple aesthetic and therapeutic indications. We are leveraging our proprietary portfolio of botulinum toxin type A compounds, combined with our patented TransMTS® peptide delivery system to address unmet needs in large and growing neurotoxin markets. Our proprietary TransMTS technology enables delivery of botulinum toxin type A through two novel dose formulations, topical product candidate RT001 and injectable product candidate RT002. We are pursuing clinical development for RT001 and RT002 in a broad spectrum of aesthetic and therapeutic indications. We hold worldwide rights for all indications of RT001, RT002 and our TransMTS technology platform.

RT001 has the potential to be the first commercially available non-injectable dose form. We are studying topical RT001 for aesthetic indications, such as crow's feet lines (wrinkles around the eyes, also known as lateral canthal lines) and therapeutic indications such as hyperhidrosis (excessive sweating). RT002 is a novel, injectable formulation of botulinum toxin designed to be more targeted and longer lasting than currently available injectable botulinum toxin products. We are studying injectable RT002 for aesthetic indications, such as glabellar (frown) lines and therapeutic uses, such as muscle movement and other disorders. Both products have the potential to expand into additional aesthetic and therapeutic indications in the future.

We have devoted predominantly all of our resources to the preclinical and clinical development of, and manufacturing capabilities for, RT001 and RT002. We have retained all rights to develop and commercialize RT001 and RT002 worldwide. We have not filed for approval with the U.S. Food and Drug Administration, or FDA, for the commercialization of RT001 or RT002 and we have not generated any revenue from product sales for RT001 or RT002.

Corporate Information

We were incorporated in Delaware in August 1999 under the name Essentia Biosystems, Inc. We commenced operations in June 2002 and, in April 2005, changed our name to Revance Therapeutics, Inc. Our principal executive offices are located at 7555 Gateway Boulevard, Newark, California 94560, and our telephone number is (510) 742-3400. Our website address is www.revance.com. The information contained in, or that can be accessed through, our website is not part of this prospectus.

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012. As an emerging growth company we are eligible for exemptions from various reporting requirements applicable to other public companies that are not emerging growth companies, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002 and reduced disclosure obligations regarding executive compensation. We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year (a) following the fifth anniversary of the closing of our initial public offering in February 2014, (b) in which we have total annual gross revenue of at least \$1.0 billion or (c) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds \$700 million as of the

prior June 30th, and (2) the date on which we have issued more than \$1.0 billion in non-convertible debt during the prior three-year period. We refer to the Jumpstart Our Business Startups Act of 2012 herein as the "JOBS Act," and references herein to "emerging growth company" shall have the meaning associated with it in the JOBS Act.

THE OFFERING

Use of proceeds

Risk factors

Common stock offered by us

Shares of our common stock having an aggregate offering price of up to

\$50 million.

Manner of offering "At-the-market" offering that may be made from time to time through our

sales agent, Cowen. See "Plan of Distribution" on page 14.

We currently intend to use the net proceeds from this offering primarily for research, development, manufacturing, and commercialization of product candidates, and for other general corporate purposes. See "Use of

Proceeds" on page 7 of this prospectus.

Investing in our common stock involves significant risks. See "Risk

Factors" on page 4 of this prospectus, and under similar headings in other

documents incorporated by reference into this prospectus.

The NASDAQ Global Market Symbol "RVNC"

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully review the risks and uncertainties described under the heading "Risk Factors" contained in any applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus, before deciding whether to purchase any of the securities being registered pursuant to the registration statement of which this prospectus is a part. The risks described in these documents are not the only ones we face, but those that we consider to be material. Each of the risk factors could adversely affect our business, operating results and financial condition, as well as adversely affect the value of an investment in our securities, and the occurrence of any of these risks might cause you to lose all or part of your investment. Moreover, the risks described are not the only ones that we face. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations. Please also read carefully the section below titled "Special Note Regarding Forward-Looking Statements."

Additional Risks Related To This Offering

You will experience immediate and substantial dilution.

The offering price per share in this offering may exceed the net tangible book value per share of our common stock outstanding prior to this offering. Assuming that an aggregate of 3,328,894 shares of our common stock are sold at a price of \$15.02 per share, the last reported sale price of our common stock on the Exchange on March 3, 2015, for aggregate gross proceeds of \$50 million, and after deducting commissions and estimated offering expenses payable by us, you will experience immediate dilution of \$6.72 per share, representing the difference between our as adjusted net tangible book value per share as of December 31, 2014 after giving effect to this offering and the assumed offering price. The exercise of outstanding stock options and warrants will result in further dilution of your investment. See the section titled "Dilution" below for a more detailed illustration of the dilution you would incur if you participate in this offering.

You may experience future dilution as a result of future equity offerings.

In order to raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock at prices that may not be the same as the price per share in this offering. We may sell shares or other securities in any other offering at a price per share that is less than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock, or securities convertible or exchangeable into common stock, in future transactions may be higher or lower than the price per share paid by investors in this offering.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, the documents we file with the SEC that are incorporated by reference in this prospectus and any free writing prospectus or applicable prospectus supplement that we have authorized for use in connection with this offering contain "forward-looking statements" within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act that involve a number of risks and uncertainties. Although our forward-looking statements reflect the good faith judgment of our management, these statements can only be based on facts and factors currently known by us. Consequently, these forward-looking statements are inherently subject to risks and uncertainties, and actual results and outcomes may differ materially from results and outcomes discussed in the forward-looking statements. These forward-looking statements include, but are not limited to, statements concerning the following:

our expectations regarding the results and the timing of clinical trials in our development of RT001 for the treatment of crow's feet lines, hyperhidrosis or other indications;

our expectations regarding the results and the timing of clinical trials of RT002 for the treatment of glabellar lines or other indications;

our expectation regarding the timing of our regulatory submissions for approval of RT001 for the treatment of crow's feet lines in the United States, Europe and other countries or for treatment of hyperhidrosis in the United States; the potential for commercialization of RT001 and RT002, if approved, by us;

our expectations regarding the potential market size, opportunity and growth potential for RT001 and RT002, if approved for commercial use;

our belief that RT001 and RT002 can expand the overall botulinum toxin market;

our ability to build our own sales and marketing capabilities, or seek collaborative partners including distributors, to commercialize our product candidates, if approved;

our ability to transfer manufacturing from third parties to our facility and to scale up our manufacturing capabilities if our product candidates are approved;

estimates of our expenses, future revenue, capital requirements and our needs for additional financing;

the timing or likelihood of regulatory filings and approvals;

our ability to advance product candidates into, and successfully complete, clinical trials;

the implementation of our business model, strategic plans for our business, product candidates and technology;

the initiation, timing, progress and results of future preclinical studies and clinical trials, and our research and development programs;

the scope of protection we are able to establish and maintain for intellectual property rights covering our product candidates and technology;

our ability to establish collaborations or obtain additional funding;

our expectations regarding the time during which we will be an emerging growth company under the Jumpstart Our Business Startups Act of 2012, or the JOBS Act;

our financial performance; and

developments and projections relating to our competitors and our industry.

Forward-looking statements can be identified by the use of forward-looking words such as "believes," "expects," "hopes," "may," "will," "plan," "intends," "estimates," "could," "should," "would," "continue," "seeks," "pro forma," or "anticipates," words (including their use in the negative), or by discussions of future matters. These statements include but are not limited to statements under the captions "Business," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and in other sections incorporated by reference from our Annual Report on

Form 10-K and Quarterly Reports on Form 10-Q, as applicable, as well as our other filings with the SEC. You should be aware that the occurrence of any of the events discussed under the heading "Risk Factors" in any applicable prospectus supplement and any documents incorporated by reference herein or therein could substantially harm our business, operating results and financial condition and that if any of these events occurs, it could adversely affect the value of an investment in our securities.

The cautionary statements made in this prospectus are intended to be applicable to all related forward-looking statements wherever they may appear in this prospectus or in any free writing prospectus or prospectus supplement, or any documents incorporated by reference herein or therein. We urge you not to place undue reliance on these forward-looking statements, which speak only as of the date they are made. Except as required by law, we assume no obligation to update our forward-looking statements, even if new information becomes available in the future.

You should read this prospectus, the documents we file with the SEC that are incorporated by reference in this prospectus and any free writing prospectus or applicable prospectus supplement that we have authorized for use in connection with this offering completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

USE OF PROCEEDS

We may issue and sell shares of our common stock having aggregate sales proceeds of up to \$50 million from time to time. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. We estimate that the net proceeds from the sale of the shares of common stock that we are offering may be up to approximately \$48.5 million, after deducting Cowen's commission and estimated offering expenses payable by us.

We currently intend to use the net proceeds from this offering primarily for research, development, manufacturing, and commercialization of product candidates, and for other general corporate purposes. Pending these uses, we expect to invest the net proceeds in short-term obligations of the U.S. government and its agencies.

DILUTION

Our net tangible book value as of December 31, 2014 was approximately \$176.4 million, or \$7.42 per share. Net tangible book value per share is determined by dividing our total tangible assets, less total liabilities, by the number of shares of our common stock outstanding as of December 31, 2014. Dilution with respect to net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the net tangible book value per share of our common stock immediately after this offering.

After giving effect to the assumed sale of 3,328,894 shares of our common stock in this offering at an assumed offering price of \$15.02 per share, the last reported sale price of our common stock on the Exchange on March 3, 2015, and after deducting commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of December 31, 2014 would have been approximately \$224.9 million, or \$8.30 per share. This represents an immediate increase in net tangible book value of \$0.88 per share to existing stockholders and immediate dilution of \$6.72 per share to investors purchasing our common stock in this offering at the public offering price. The following table illustrates this dilution on a per share basis:

Assumed public offering price per share		\$15.02
Net tangible book value per share of as December 31, 2014	\$7.42	
Increase in net tangible book value per share attributable to this offering	0.88	
As adjusted net tangible book value per share as of December 31, 2014, after giving effect to this		8.30
offering		
Dilution per share to investors purchasing our common stock in this offering		\$6.72

The above discussion and table are based on 23,774,465 shares outstanding as of December 31, 2014, and exclude as of that date:

- 198,662 shares of common stock issuable upon the exercise of warrants outstanding as of December 31, 2014, having a weighted average exercise price of \$18.12 per share;
- 1,818,323 shares of common stock issuable upon the exercise of stock options outstanding as of December 31, 2014, having a weighted average exercise price of \$17.90 per share;
- 91,634 shares of common stock reserved for future issuance under our 2014 Equity Incentive Plan;
- 474,661 shares of common stock reserved for future issuance under our 2014 Employee Stock Purchase Plan; and
- 441,500 shares of common stock reserved for future issuance under our 2014 Inducement Plan.

The table above assumes for illustrative purposes that an aggregate of 3,328,894 shares of our common stock are sold during the term of the sales agreement with Cowen at a price of \$15.02 per share, the last reported sale price of our common stock on The NASDAQ Global Market on March 3, 2015, for aggregate gross proceeds of \$50 million. The shares subject to the sales agreement with Cowen are being sold from time to time at various prices. An increase of \$1.00 per share in the price at which the shares are sold from the assumed offering price of \$15.02 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$50 million during the term of the sales agreement with Cowen is sold at that price, would increase our adjusted net tangible book value per share after the offering to \$8.42 per share and would increase the dilution in net tangible book value per share to new investors in this offering to \$7.60 per share, after deducting commissions and estimated offering expenses payable by us. A decrease of \$1.00 per share in the price at which the shares are sold

from the assumed offering price of \$15.02 per share shown in the table above, assuming all of our common stock in the amount of \$50 million during the term of the sales agreement with Cowen is sold at that price, would decrease our adjusted net tangible book value per share after the offering to \$8.18 per share and would decrease the dilution in net tangible book value per share to new investors in this offering to \$5.84 per share, after deducting commissions and estimated aggregate offering expenses payable by us. This information is supplied for illustrative purposes only and may differ based on the actual offering price and the actual number of shares offered.

To the extent that outstanding options or warrants outstanding as of December 31, 2014 have been or may be exercised or other shares issued, investors purchasing our common stock in this offering may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

DESCRIPTION OF CAPITAL STOCK

The following summary description of our capital stock is based on the provisions of our amended and restated certificate of incorporation, or certificate of incorporation, and amended and restated bylaws, or bylaws, and the applicable provisions of the Delaware General Corporation Law, or Delaware Law. This information is qualified entirely by reference to the applicable provisions of our certificate of incorporation, bylaws and Delaware Law. For information on how to obtain copies of our amended and restated certificate of incorporation and bylaws, which are exhibits to the registration statement of which this prospectus is a part, see the section titled "Where You Can Find Additional Information" in this prospectus.

General

Our authorized capital stock consists of 95,000,000 shares of common stock, \$0.001 par value per share, and 5,000,000 shares of preferred stock, \$0.001 par value per share.

As of February 27, 2015, there were 23,934,832 shares of common stock outstanding, no shares of preferred stock outstanding, and warrants for the purchase of an aggregate of 198,662 shares of common stock outstanding. Common Stock

Voting rights. Each holder of our common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Our stockholders do not have cumulative voting rights in the election of directors. As a result, the holders of a majority of the shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they should so choose.

Dividends. Subject to preferences that may be applicable to any then-outstanding preferred stock, holders of common stock are entitled to receive ratably those dividends, if any, as may be declared from time to time by our board of directors out of legally available funds.

Liquidation. In the event of our liquidation, dissolution or winding up of the Company, holders of common stock are entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then-outstanding shares of preferred stock.

Rights and preferences. Holders of common stock have no preemptive, conversion or subscription rights and there are no redemption or sinking fund provisions applicable to the common stock. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate in the future.

Fully paid and nonassessable. All of our outstanding shares of common stock are, and the shares of common stock to be issued in this offering, if any, will be, fully paid and nonassessable.

Preferred Stock

Under our amended and restated certificate of incorporation, our board of directors has the authority, without further action by the stockholders (unless such stockholder action is required by applicable law or the rules of any stock exchange or market on which our securities are then traded), to designate and issue up to 5,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the designations, voting powers, preferences and rights of the shares of each wholly unissued series, and any qualifications, limitations or restrictions

thereof, and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

Delaware Law provides that the holders of preferred stock will have the right to vote separately as a class (or, in some cases, as a series) on an amendment to our certificate of incorporation if the amendment would change the par value or, unless the certificate of incorporation provided otherwise, the number of authorized shares of the class or change the powers, preferences or special rights of the class or series so as to adversely affect the class or series, as the case may be. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

Our board of directors may authorize the issuance of preferred stock with voting, exchange or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. Preferred stock could be issued quickly with terms designed to delay or prevent a change in control of our company or make removal of management more difficult. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of our common stock.

Warrants

As of December 31, 2014, warrants to purchase an aggregate of 198,662 shares of our common stock at a weighted-average exercise price of \$18.12 per share, with expiration dates ranging from December 20, 2018 to September 20, 2021 were outstanding. These warrants have a net exercise provision and contain provisions for the adjustment of the exercise price and the number of shares issuable upon the exercise of the warrant in the event of certain stock dividends, stock splits, recapitalizations, reclassifications, consolidations and other fundamental transactions.

Registration Rights

We agreed to provide certain registration rights to certain holders of our common stock pursuant to the terms of the Amended and Restated Investor's Rights Agreement, or IRA. We entered into the IRA in connection with the issuance of our Series E convertible preferred stock (which converted to common stock in our initial public offering) in March 2013, and further amended the IRA on October 8, 2013 and February 5, 2014.

Anti-Takeover Effects of Provisions of Our Amended and Restated Certificate of Incorporation and Bylaws Our certificate of incorporation and bylaws provide for our board of directors to be divided into three classes, with staggered three-year terms. Only one class of directors is elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Because our stockholders do not have cumulative voting rights, our stockholders representing a majority of the shares of common stock outstanding will be able to elect all of our directors due to be elected at each annual meeting of our stockholders. In addition, our certificate of incorporation provides that vacancies on our board of directors resulting from death, resignation, disqualification, removal or other causes may be filled by the affirmative vote of a majority of the remaining directors in office, even if less than a quorum, and that newly created directorships shall be filled by the affirmative vote of a majority of the directors then in office, even if less than a quorum, unless our board of directors determines otherwise. Our bylaws provide that all stockholder action must be effected at a duly called meeting of stockholders and not by consent in writing, and that only the chairman of our board, our president, our secretary or a majority of the authorized number of directors may call a special meeting of stockholders. Our certificate of incorporation requires a 66-2/3% stockholder vote for the amendment, repeal or modification of certain provisions of our certificate of incorporation relating to, among other things, the classification of our board of directors and filling of vacancies on our board of directors. Our certificate of incorporation and bylaws also require a 66-2/3% stockholder vote for the stockholders to adopt, amend or

repeal certain provisions of our bylaws relating to stockholder proposals at annual meetings, director nominees and the number and term of office of directors.

The combination of the classification of our board of directors, the lack of cumulative voting and the 66-2/3% stockholder voting requirements will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Since our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to effect a change of our control.

These provisions may have the effect of deterring hostile takeovers or delaying changes in our control or in our management. These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and in the policies they implement, and to discourage certain types of transactions that may involve an actual or threatened change of our control. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. The provisions also are intended to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and, as a consequence, they also may inhibit fluctuations in the market price of our shares that could result from actual or rumored takeover attempts.

Section 203 of Delaware Law

We are subject to Section 203 of Delaware Law, or Section 203, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;

upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66-2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines business combination to include the following:

any merger or consolidation involving the corporation and the interested stockholder;

any sale, lease, transfer, pledge or other disposition of 10% or more of the assets of the corporation to or with the interested stockholder;

subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;

any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or

the receipt by the interested stockholder of the benefit of any loss, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines interested stockholder as an entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation or any entity or person affiliated with or controlling or controlled by such entity or person.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A. Its address is 250 Royall Street, Canton, Massachusetts 02021.

NASDAQ Global Market Listing

Our common stock is listed on The NASDAQ Global Market under the symbol "RVNC."

PLAN OF DISTRIBUTION

We have entered into a Sales Agreement with Cowen and Company, LLC, or Cowen, under which we may issue and sell shares of our common stock having aggregate sales proceeds of up to \$50 million from time to time through Cowen acting as agent. Cowen may sell the common stock by any method that is deemed to be an "at-the-market" equity offering as defined in Rule 415 promulgated under the Securities Act including sales made directly on or through the Exchange or any other existing trading market for the common stock in the United States or to or through a market maker. Cowen also may sell the common stock in negotiated transactions, subject to our prior approval. Each time we wish to issue and sell common stock under the sales agreement, we will notify Cowen of the number of shares to be issued, the dates on which such sales are anticipated to be made and any minimum price below which sales may not be made. Once we have so instructed Cowen, unless Cowen declines to accept the terms of this notice, Cowen has agreed to use its commercially reasonable efforts consistent with its normal trading and sales practices to sell such shares up to the amount specified on such terms. The obligations of Cowen under the sales agreement to sell our common stock are subject to a number of conditions that we must meet.

The settlement between us and Cowen is generally anticipated to occur on the third trading day following the date on which the sale was made. Sales of our common stock as contemplated in this prospectus will be settled through the facilities of the Depository Trust Company, or by such other means as we and Cowen may agree upon. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

We will pay Cowen a commission equal to an aggregate of up to 3% of the gross proceeds we receive from the sales of our common stock. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. In connection with the sale of the common stock on our behalf, Cowen may, and will with respect to sales effected in an "at-the-market-offering," be deemed to be an "underwriter" within the meaning of the Securities Act, and the compensation of Cowen will be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to Cowen with respect to certain civil liabilities, including liabilities under the Securities Act. In addition, we have agreed, under certain circumstances, to reimburse a portion of the expenses of Cowen in connection with this offering, not to exceed \$50,000. We have also agreed to reimburse Cowen for its FINRA counsel fee of up to \$10,000. We estimate that the total expenses for the offering, excluding compensation payable to Cowen under the terms of the sales agreement, will be approximately \$80,360.

The offering of our common stock pursuant to the sales agreement will terminate upon the earlier of (i) the issuance and sale of all of our common stock provided for in this prospectus, or (ii) termination of the sales agreement as permitted therein.

This summary of the material provisions of the sales agreement does not purport to be a complete statement of its terms and conditions. A copy of the sales agreement is filed with the SEC and is incorporated by reference into the registration statement of which this prospectus is a part. See section titled "Where You Can Find More Information" below.

To the extent required by Regulation M, Cowen will not engage in any market making activities involving our common stock while the offering is ongoing under this prospectus.

LEGAL MATTERS

The validity of the common stock offered by this prospectus will be passed upon for us by Cooley LLP, Palo Alto, California. Davis Polk & Wardwell LLP, Menlo Park, California, is counsel for Cowen in connection with this offering.

EXPERTS

The financial statements incorporated in this Prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2014, have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement on Form S-3 we filed with the SEC under the Securities Act and does not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference therein. For further information with respect to us and the common stock we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. Neither we nor any agent, underwriter or dealer has authorized any person to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of the common stock offered by this prospectus.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy the registration statement, as well as any other document filed by us with the SEC, at the SEC's Public Reference Room at 100 F Street NE, Washington, D.C. 20549. You can also request copies of these documents by writing to the SEC and paying a fee for the copying cost. You may obtain information on the operation of the Public Reference Room by calling the SEC at (800) SEC-0330. The SEC maintains a website that contains reports, proxy statements and other information regarding issuers that file electronically with the SEC, including us. The address of the SEC website is www.sec.gov.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The SEC file number for the documents incorporated by reference in this prospectus is 001-36297. The documents incorporated by reference into this prospectus contain important information that you should read about us.

The following documents are incorporated by reference into this document:

our Annual Report on Form 10-K for the fiscal year ended December 31, 2014 and filed with the SEC on March 4, 2015;

our Current Reports on Form 8-K filed with the SEC on February 3, 2015 and February 27, 2015; and

the description of the our common stock contained in our registration statement on Form 8-A (No. 001-36297), filed with the SEC on February 4, 2014, including any amendments or reports filed for the purpose of updating such description.

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to effectiveness of the registration statement, or (ii) after the date of this prospectus but prior to the termination of the offering. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements. Information in these documents updates and supplements the information provided in this prospectus. Any statements in these documents will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits which are specifically incorporated by reference into such documents. You should direct any requests for documents by writing us at 7555 Gateway Boulevard, Newark, California 94560 or telephoning us at (510) 742-3400.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this document will be deemed to be modified or superseded for purposes of the document to the extent that a statement contained in this document or any other subsequently filed document that is deemed to be incorporated by reference into this document modifies or supersedes the statement.

\$50,000,000 Common Stock PROSPECTUS PROSPECTUS Cowen and Company March 18, 2015