

REPLIGEN CORP
Form 424B5
April 29, 2019
Table of Contents

The information in this preliminary prospectus supplement is not complete and may be changed. A registration statement relating to the shares has become effective under the Securities Act of 1933, as amended. This preliminary prospectus supplement and the accompanying prospectus do not constitute an offer to sell the shares and it is not soliciting an offer to buy the shares in any jurisdiction where the offer or sale is not permitted.

**Filed Pursuant to Rule 424(b)5
Registration No. 333-231098**

SUBJECT TO COMPLETION, DATED APRIL 29, 2019

Preliminary Prospectus Supplement

(to Prospectus Dated April 29, 2019)

\$175,000,000

REPLIGEN CORPORATION

Common Stock

We are offering \$175,000,000 of our common stock in this offering.

Our common stock is listed on the Nasdaq Global Select Market under the symbol RGEN. The last reported sale price of our common stock on the Nasdaq Global Select Market on April 26, 2019 was \$68.89 per share.

Total

	Per Share	
Public offering price	\$	\$
Underwriting discounts and commissions ⁽¹⁾	\$	\$
Proceeds to Repligen Corporation, before expenses	\$	\$

(1) We have agreed to reimburse the underwriters for certain expenses. See Underwriting.

Investing in our common stock involves a high degree of risk. See Risk Factors beginning on page S-17 of this prospectus supplement and in our Annual Report on Form 10-K for the year ended December 31, 2018, which is incorporated herein by reference.

We have granted the underwriters an option to purchase up to \$26,250,000 of additional shares from us at the public offering price, less underwriting discounts and commissions, within 30 days of the date of this prospectus supplement.

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

The underwriters are offering the shares of our common stock as set forth under Underwriting. Delivery of the shares of common stock will be made on or about , 2019.

Joint Book-Running Managers

J.P. Morgan

Stephens Inc.

Lead Manager

Janney Montgomery Scott

The date of this prospectus supplement is April , 2019.

Table of Contents**TABLE OF CONTENTS**

	Page
PROSPECTUS SUPPLEMENT	
<u>ABOUT THIS PROSPECTUS SUPPLEMENT</u>	S-1
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	S-2
<u>PRESENTATION OF NON-GAAP FINANCIAL INFORMATION</u>	S-3
<u>PROSPECTUS SUPPLEMENT SUMMARY</u>	S-4
<u>THE OFFERING</u>	S-11
<u>SUMMARY CONSOLIDATED FINANCIAL DATA</u>	S-13
<u>SUMMARY FINANCIAL DATA OF C TECHNOLOGIES</u>	S-16
<u>RISK FACTORS</u>	S-17
<u>THE ACQUISITION</u>	S-27
<u>USE OF PROCEEDS</u>	S-29
<u>CAPITALIZATION</u>	S-30
<u>DIVIDEND POLICY</u>	S-32
<u>BUSINESS OF C TECHNOLOGIES</u>	S-33
<u>UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION</u>	S-35
<u>MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATION OF C TECHNOLOGIES</u>	S-42
<u>UNDERWRITING</u>	S-46
<u>LEGAL MATTERS</u>	S-51
<u>EXPERTS</u>	S-52
<u>WHERE YOU CAN FIND ADDITIONAL INFORMATION</u>	S-53
<u>INCORPORATION OF CERTAIN INFORMATION BY REFERENCE</u>	S-54
PROSPECTUS	
<u>ABOUT THIS PROSPECTUS</u>	1
<u>WHERE YOU CAN FIND ADDITIONAL INFORMATION</u>	2
<u>INCORPORATION OF CERTAIN INFORMATION BY REFERENCE</u>	3
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	4
<u>RISK FACTORS</u>	5
<u>ABOUT THE COMPANY</u>	6
<u>DESCRIPTION OF CAPITAL STOCK</u>	7
<u>DESCRIPTION OF DEBT SECURITIES</u>	10
<u>DESCRIPTION OF WARRANTS</u>	18
<u>DESCRIPTION OF UNITS</u>	19
<u>FORMS OF SECURITIES</u>	20
<u>USE OF PROCEEDS</u>	22
<u>PLAN OF DISTRIBUTION</u>	23
<u>LEGAL MATTERS</u>	25
<u>EXPERTS</u>	26

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is part of the registration statement that we filed with the SEC 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, the accompanying prospectus, including the documents incorporated by reference, gives more general information, some of which may not apply to this offering. Generally, when we refer to the prospectus, we are referring to both parts combined. This prospectus supplement and any free writing prospectus we authorize for use in connection with this offering may add to, update or change information in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement or the accompanying prospectus.

If information in this prospectus supplement is inconsistent with the accompanying prospectus or with any document incorporated by reference that was filed with the SEC before the date of this prospectus supplement, you should rely on this prospectus supplement. This prospectus supplement, the accompanying prospectus, the documents incorporated by reference into each of them and any free writing prospectus we authorize for use in connection with this offering include important information about us, the common stock and other information should you consider before investing in the common stock. See Incorporation of Certain Information by Reference.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein or in the accompanying prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties and covenants were made as of a date prior to the date of this prospectus supplement, and facts and circumstances may have changed since such date. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

We take no responsibility for, and can provide no assurances as to the reliability of, any information that is in addition to or different from that contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. We are not offering to sell these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained or incorporated by reference in this prospectus supplement or the accompanying prospectus is accurate as of any date other than as of the date of this prospectus supplement or the accompanying prospectus, as the case may be, or in the case of the documents incorporated by reference, the date of such documents regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or any sale of our securities. Our business, financial condition, liquidity, results of operations and prospects may have changed since those dates.

All references in this prospectus supplement or the accompanying prospectus to Repligen, the Company, we, us, or our mean Repligen Corporation and our subsidiaries, unless we state otherwise or the context otherwise requires. References to C Technologies refer to C Technologies, Inc., a New Jersey corporation, which we have entered into a contract to acquire, as more thoroughly described in Prospectus Supplement Summary Recent Developments Proposed Acquisition of C Technologies and The Acquisition.

This prospectus supplement, the accompanying prospectus and the information incorporated herein and therein by reference contain references to trademarks, service marks and trade names owned by us or other companies. Solely for convenience, trademarks, service marks and trade names referred to in this prospectus supplement, the accompanying prospectus and the information incorporated herein and therein, including logos, artwork, and other visual displays, may appear without the® or symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks,

service marks and trade names. We do not intend our use or display of other companies' trade names, service marks or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus supplement, the accompanying prospectus or any related free writing prospectus are the property of their respective owners.

S-1

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the information incorporated by reference herein and therein contain, and any free writing prospects we authorize for use in connection with this offering may contain, statements that are not historical facts and are considered forward-looking within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, including those related to our recently announced proposed acquisition of C Technologies, or the Acquisition. These forward-looking statements may contain projections of our future results of operations or of our financial position or state other forward-looking information. In some cases you can identify these statements by forward-looking words such as anticipate, believe, could, continue, estimate, expect, intend, should, will, would, plan, projected or the negative of such words or other similar words or phrases. We believe it is important to communicate our future expectations to our investors. However, there may be events in the future that we are not able to accurately predict or control and that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements.

Investors are cautioned not to unduly rely on forward-looking statements because they involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. Forward-looking statements include, but are not limited to, statements about:

the acceptance by the market of our products;

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

the timing of and our ability to complete and successfully integrate acquisitions, including the Acquisition;

our expectations relating to the synergies, cost savings and other benefits of the Acquisition;

the growth of our business into new markets and geographies;

our ability to maintain and establish key customer relationships;

our ability to identify and engage in strategic partnerships;

estimates of our expenses, future revenues and capital requirements;

our financial performance;

preliminary estimates for our first quarter financial results;

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

developments relating to our competitors and our industry; and

other risks and uncertainties, including those listed under the caption **Risk Factors** below, including those related to the Acquisition and the risks related to the business of C Technologies and in any documents incorporated by reference herein.

Given these uncertainties, readers should not place undue reliance on our forward-looking statements. These forward-looking statements speak only as of the date on which the statements were made and are not guarantees of future performance. Except as may be required by applicable law, we do not undertake or intend to update any forward-looking statements after the date of this prospectus supplement or the accompanying prospectus or the respective dates of documents incorporated by reference herein or therein that include forward-looking statements.

S-2

Table of Contents

PRESENTATION OF NON-GAAP FINANCIAL INFORMATION

Non-GAAP Adjusted Income From Operations, Non-GAAP Adjusted Net Income, Non-GAAP Adjusted EBITDA, and Non-GAAP Earnings Per Share (Diluted), which are presented in this prospectus supplement, are not required by, or presented in accordance with, generally accepted accounting principles in the United States, or GAAP. We include this non-GAAP financial information because we believe these measures provide a useful comparison of our financial results between periods and reflect how management reviews its financial results. These financial measures exclude the impact of certain acquisition-related items because we believe that the resulting charges do not accurately reflect the performance of our ongoing operations for the period in which such charges were incurred.

We define Non-GAAP Adjusted Income From Operations as income from operations as reported in accordance with GAAP, excluding acquisition and integration costs, inventory step-up charges, and amortization of intangible assets booked through our condensed consolidated statements of comprehensive income. Similarly, we define Non-GAAP Adjusted Net Income as net income as reported in accordance with GAAP, excluding acquisition and integration costs and related tax effects, inventory step-up charges, amortization of intangible assets and related tax effects, non-cash interest expense, the partial release of valuation allowance on our deferred tax assets and the net impact of tax reform legislation booked through our condensed consolidated statements of comprehensive income. We define Non-GAAP Adjusted EBITDA as net income as reported in accordance with GAAP, excluding investment income, interest expense, taxes, depreciation and amortization, acquisition and integration costs and inventory step-up charges booked through our condensed consolidated statements of comprehensive income. Finally, we define Non-GAAP Adjusted Earnings Per Share (Diluted) as net income per share as reported in accordance with GAAP, excluding acquisition and integration costs, inventory step-up charges, amortization of intangible assets and related tax effects, partial release of valuation allowance on deferred tax assets and net impact of tax reform legislation and non-cash interest expense booked through our condensed consolidated statements of comprehensive income.

Non-GAAP Adjusted Income From Operations, Non-GAAP Adjusted Net Income, Non-GAAP Adjusted EBITDA and Non-GAAP Adjusted Earnings Per Share (Diluted) are not recognized terms under GAAP. Because some companies do not calculate Non-GAAP Adjusted Income From Operations, Non-GAAP Adjusted Net Income, Non-GAAP Adjusted EBITDA, and Non-GAAP Adjusted Earnings Per Share (Diluted) in the same way as we do and financial metrics reported by other companies under the same or similar captions may not be comparable, from a financial point of view, to any financial measures we report, our non-GAAP financial measures should not be considered as alternative measures of operating profit or net income, and do not replace the presentation of our financial results in accordance with GAAP.

For reconciliations of our income from operations, net income and earnings per share, as applicable, to Non-GAAP Adjusted Income From Operations, Non-GAAP Adjusted Net Income, Non-GAAP Adjusted EBITDA and Non-GAAP Adjusted Earnings Per Share (Diluted), see Summary Consolidated Financial Data Reconciliation of Non-GAAP Financial Measures.

Table of Contents**PROSPECTUS SUPPLEMENT SUMMARY**

This summary highlights selected information contained elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus. This summary may not contain all the information that you should consider before making your investment decision. You should read this entire prospectus supplement and the accompanying prospectus carefully, especially the risks of investing in our securities discussed under Risk Factors beginning on page S-17 of this prospectus supplement, along with our consolidated financial statements and notes to those consolidated financial statements, the unaudited pro forma condensed combined financial statements included herein and the other information incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus we authorize for use in connection with this offering, before making an investment decision. This prospectus supplement may add to, update or change information in the accompanying prospectus.

Overview

Repligen and its subsidiaries, collectively doing business as Repligen Corporation, is a leading provider of advanced bioprocessing technologies and solutions used in the process of manufacturing biologic drugs. Our products are made to substantially increase biopharmaceutical manufacturing efficiencies and flexibility. As the global biologics market continues to experience strong growth and expansion, our customers primarily large biopharmaceutical companies and contract development and manufacturing organizations, or CDMOs, face critical production cost, capacity, quality and time pressures that our products are made to address. We believe that our commitment to bioprocessing is helping to set new standards for the way our customers manufacture biologic drugs, including monoclonal antibodies, recombinant proteins, vaccines and gene therapies. We are dedicated to inspiring advances in bioprocessing as a trusted partner in the production of biologic drugs that improve human health worldwide.

We currently operate as one bioprocessing business, with a comprehensive suite of products to serve both upstream and downstream processes in biologic drug manufacturing. Building on over 35 years of industry expertise, we have developed a broad and diversified product portfolio that reflects our commitment to build a best-in-class bioprocessing technology company with a world-class direct sales and commercial organization. Our bioprocessing business is currently comprised of three main franchises Proteins, Filtration and Chromatography. Based on internal estimates and assumptions, we believe our Proteins, Filtration and Chromatography franchises sell into addressable markets of approximately \$475 million, \$900 million and \$180 million, respectively, for an aggregate addressable market of approximately \$1.6 billion. We continue to seek out strategic opportunities to strengthen and expand our bioprocessing business. Our proposed acquisition of C Technologies, if consummated, would add a fourth franchise, Process Analytics, to our bioprocessing business.

Our Proteins franchise is represented by our Protein A affinity ligands, which are a critical component of Protein A chromatography resins used in downstream purification, and cell culture growth factor products, which are a key component of cell culture media used upstream to increase cell density in a bioreactor and improve product yield. We sell these products through supply and distribution agreements with life sciences companies. Using ligands and growth factors manufactured and/or owned by Repligen, our life sciences customers produce and sell Protein A resins and cell culture media, respectively, to end users (biopharmaceutical companies and CDMOs).

Our Filtration franchise includes our XCell ATF (alternating tangential flow) systems for use in upstream process intensification, our single-use SIUS TFF (tangential flow filtration) cassettes for use in downstream concentration and formulation processes, our KrosFlo® line of hollow fiber TFF cartridges and systems used in both upstream clarification and downstream formulation processes, and our Pro-Connex® single-use flow paths and single-use tubing sets used in TFF applications. Our Filtration franchise has grown to be our largest franchise through a combination of

acquisitions and internal innovation. We sell our filtration products directly to end users.

S-4

Table of Contents

Our Chromatography franchise includes a number of products used in the downstream purification and quality control of biological drugs. We sell a broad range of OPUS® pre-packed chromatography columns, or PPCs, as well as chromatography resins and ELISA test kits. We sell our chromatography products direct to end users.

We plan to expand our analytics and testing systems beyond our ELISA test kits, with the proposed acquisition of C Technologies. We believe our acquisition of C Technologies, if consummated, would help to establish Repligen in the bioprocess analytics industry with differentiated protein measurement technologies and an R&D portfolio focused on enabling real-time process monitoring in upstream and downstream applications.

Our go direct approach includes five acquisitions since 2014, including the proposed acquisition of C Technologies, multiple new product launches through internal innovation, key strategic collaborations and the expansion of our commercial team. Our growth has also been aided by a robust and expanding biologics market. For instance, between 2016 and 2018, 36 monoclonal antibodies were approved by the FDA, representing almost 40% of all approved monoclonal antibodies since the first therapeutic antibody was brought to market in 1986. We have focused our approach on four core areas:

Acquisitions. In June 2014, we entered the filtration market with the acquisition of ATF technology (now XCell ATF) from Refine Technologies LLC. In April 2016, we expanded our Chromatography franchise, adding process development scale pre-packed chromatography columns (now OPUS PD) through our purchase of Atoll GmbH, enabling preclinical to commercial-stage scalability for our OPUS PPC line. In December 2016, we expanded our Filtration portfolio into downstream applications, adding single-use SIUS flat sheet TFF cassettes through our purchase of TangenX Technology Corporation. In August 2017, we further expanded our Filtration franchise through our acquisition of Spectrum Life Sciences LLC, or Spectrum, adding the KrosFlo line of hollow fiber TFF cartridges and systems, tangential flow depth filtration technology, and Pro-Connex single-use tubing sets. With the acquisition of Spectrum, we in-house manufacture hollow fiber filters that can be used in our XCell ATF systems and have increased our direct sales presence in Europe and Asia. On April 25, 2019, we entered into a stock purchase agreement for the purchase of 100% of the outstanding capital stock of C Technologies from the Seller, or the Acquisition. If consummated, we expect that the Acquisition will help to establish a fourth franchise, Process Analytics, which will complement and support our existing Proteins, Filtration and Chromatography franchises.

Internal development. Our internal development efforts have generated a number of innovative new products that we believe are well positioned for growth as customers increasingly adopt single-use and continuous processing products. In 2011, we launched the first of our OPUS pre-packed columns, and have continued to expand the OPUS family with new sizes and features such as a resin recovery port on our largest columns. Early in 2018, we introduced OPUS 80 R, the largest available PPC on the market for use in late-stage clinical or select commercial purification processes. In 2016, we introduced a single-use version of our XCell ATF perfusion device, designed to improve customer convenience and lower barriers to customer adoption. In 2018, we introduced our KONDUiT device to automate concentration and buffer exchange when used with our hollow fiber or flat sheet TFF filtration products. We plan to continue to advance both internal and acquired assets to introduce new products and/or features that can expand applications for our products.

Strategic collaborations. In June 2018, we secured an agreement with Navigo Proteins GmbH for the exclusive co-development of multiple affinity ligands for which Repligen holds commercialization rights. We are manufacturing and have agreed to supply the first of these ligands, NGL-Impact A, exclusively to Purolite Life Sciences, who will pair our high-performance ligand with Purolite's agarose jetting base bead technology used in their Jetted A50 Protein A resin product. We also signed a long term supply agreement with Purolite involving potential additional affinity ligands that may advance from our Navigo collaboration. The Navigo and Purolite agreements are supportive of our strategy to secure and reinforce our Proteins business. Supporting our Filtration

S-5

Table of Contents

franchise, in September 2018, we entered into a collaboration agreement with an industry leader, Sartorius Stedim Biotech, or SSB, to integrate our XCell ATF controller technology into SSB's BIOSTAR large-scale, single-use bioreactors, to create novel perfusion-enabled bioreactors.

Commercial expansion. We market our Chromatography and Filtration products globally through a direct commercial organization in the United States and Europe, as well as Asia, where we supplement direct sales with distributor relationships. Since 2014, we have significantly expanded our global commercial organization, to form a 103-person commercial team as of December 31, 2018. This includes 54 people in field positions (direct sales, field applications and field service), and 49 people with internal positions (marketing, product management and customer service). This expansion also includes the team of 26 highly experienced field personnel that we gained in connection with our acquisition of Spectrum in 2017. With the Spectrum acquisition, we greatly expanded our direct sales team in Asia, where we also work effectively with key distributors to serve our expanding customer base. In addition, the Acquisition would increase our sales capabilities in the U.S., Europe and Asia, with the integration of C Technologies commercial team (sales, field applications and service) and third-party distributors. Our commercial and R&D teams work to successfully launch new products and applications, as well as build new markets for acquired technologies that increase flexibility and convenience while streamlining biomanufacturing workflow for our customers.

Through acquisitions, internal R&D, strategic partnerships and commercial leverage, we continue to expand the applications for our bioprocessing products and to diversify our end markets.

Many of our products are early in their adoption cycle, and together with the expansion of our commercial organization and strategic acquisitions, have contributed to product revenue growth from \$47.5 million in 2013, to \$193.9 million in 2018. While all product franchises have grown over this period, our diversification strategy has resulted in a significant increase in direct product sales as a percent of total product revenue, from 17% in 2012. By 2018, 72% of total bioprocessing revenue was attributable to direct product sales; 47% from our Filtration franchise, 23% from our Chromatography franchise and a small percentage from other sources including sales of hospital products, which we obtained with our acquisition of Spectrum.

Customers use our products to produce initial quantities of drug for clinical studies, then scale-up to larger volumes as the drug progresses to commercial production following regulatory approval. Detailed specifications for a drug's manufacturing process are included in applications that must be approved by regulators, such as the U.S. Food and Drug Administration, or the FDA, and the European Medicines Agency, throughout the clinical trial process and prior to final commercial approval. As a result, products that become part of the manufacturing specifications of a late-stage clinical or commercial process can be very difficult to displace given the related costs and uncertainties.

The Biologics Manufacturing Process

Manufacturing biologic drugs requires three fundamental steps. First, upstream manufacturing involves the production of the biologic by living cells that are grown in a series of bioreactors (seed bioreactors, scaling up to a production bioreactor) under controlled conditions. Methods of production vary, with the industry standard being fed-batch, where nutrients (cell culture media) are added to a production bioreactor to stimulate cell growth and production of the biologic drug of interest. The contents of the bioreactor then go through a harvest and clarification step. The industry is increasingly adopting the perfusion (or continuous) method of production, which circulates nutrients into the bioreactor, while simultaneously harvesting/clarifying the biologic drug product. Some manufacturers are embracing a hybrid approach combining both fed-batch and perfusion methods. The cells being grown in a bioreactor are engineered to produce the biologic drugs of interest. These tiny cell factories are highly sensitive to the conditions under which they grow, including the composition of the cell culture media and the growth factors used to stimulate increased cell growth and protein production, or titre.

S-6

Table of Contents

Following the upstream steps, the process moves downstream and the biologic made upstream must be separated and purified, typically through various chromatography and filtration steps. Finally, the purified biologic drug is concentrated, formulated and then packaged (fill-finish) into its final injectable form.

Biologics are generally high value therapies. Given the inherent complexities of the process and the final drug product, we have observed that manufacturers are seeking and investing in innovative technologies that address pressure points in the production process in order to improve yields. Manufacturers are also seeking technologies that reduce costs as the biologic drug moves through clinical stages and into commercial processes by adopting single-use technologies as well as other products that enable increased flexibility and efficiency.

Our Strategy

We are focused on the development, production and commercialization of differentiated, technology-leading solutions or products that address specific pressure points in the biologics manufacturing process and deliver substantial value to our customers. Our products are designed to increase our customers' product yield, and we are committed to supporting our customers with strong customer service and applications expertise.

We intend to build on our recent history of developing market-leading solutions and delivering strong financial performance through the following strategies:

Continued innovation. We plan to capitalize on our internal technological expertise to develop products that address unmet needs in upstream and downstream bioprocessing. We intend to invest further in our core Proteins product lines while developing platform and derivative products to support our Filtration and Chromatography product lines. We plan to strengthen our existing product lines with complementary products and technologies that are designed to allow us to provide customers with a more efficient manufacturing process on one or more measures including flexibility, convenience, time savings, cost reduction and product yield. With the Acquisition, we plan to offer customers bioprocess analytics solutions designed to easily integrate with our current franchises, for both upstream and downstream applications.

Platforming our products. A key strategy for accelerating market adoption of our products is delivery of enabling technologies that become the standard, or platform, technology in markets where we compete. We focus our efforts on winning early-stage technology evaluations through direct interaction with the key biomanufacturing decision makers in process development labs. This strategy is designed to establish early adoption of our enabling technologies at key accounts, with opportunity for customers to scale up as the molecule advances to later stages of development and potential commercialization. We believe this approach can accelerate the implementation of our products as platform products, thereby strengthening our competitive advantage and contributing to long-term growth.

Targeted acquisitions. We intend to continue to selectively pursue acquisitions of innovative technologies and products, including the Acquisition. We intend to leverage our balance sheet to acquire technologies and products that improve our overall financial performance by improving our competitiveness in filtration or chromatography or moving us into adjacent markets with common commercial call points.

Geographical expansion. We intend to expand our global commercial presence by continuing to selectively build out our global sales, marketing, field applications and services infrastructure.

Operational efficiency. We seek to expand operating margins through capacity utilization and process optimization strategies designed to increase our manufacturing yields. We plan to invest in systems to support our global operations, optimizing resources across our global footprint to maximize productivity.

S-7

Table of Contents

Recent Developments

Proposed Acquisition of C Technologies

On April 25, 2019, we entered into a stock purchase agreement, or the Acquisition Agreement, with C Technologies and Craig Harrison, as the sole stockholder of C Technologies, or the Seller and, together with C Technologies, the Seller Parties, pursuant to which we have agreed to acquire, subject to certain conditions, 100% of the outstanding capital stock of C Technologies for a total purchase price of \$240 million. C Technologies is a privately held New Jersey corporation that designs and manufactures fiber optic assemblies, instrumentation and systems for spectroscopy applications that recognized approximately \$23.7 million in revenue for the year ended December 31, 2018.

We believe that the Acquisition represents an opportunity to offer our customers a best-in-class portfolio of upstream and downstream analytical solutions.

Specifically, we believe that the Acquisition, if consummated, has the potential to:

Establish a key franchise for Repligen in the rapidly growing Process Analytics segment of bioprocessing.

Add proprietary Slope Spectroscopy® technology that enables rapid and accurate protein concentration measurement to Repligen's product offerings.

Complement our Chromatography and Filtration product portfolios.

Leverage Repligen's infrastructure to drive broader market reach for C Technologies' SoloVPE and FlowVPE product lines through investments in the company's commercial infrastructure.

Expand C Technologies' capabilities to enable real-time process monitoring in batch and continuous manufacturing.

Contribute positively to our financial performance.

C Technologies Overview

C Technologies was founded in January 1985, and is a privately-held New Jersey corporation headquartered in Bridgewater, New Jersey, with a total of 70 employees. The company designs and manufactures fiber optic assemblies, instrumentation, and systems for spectroscopy applications. It distributes its products through both direct sales and third-party distributors to customers spanning a wide range of markets including pharmaceutical, biotech, laboratory instruments, government, industrial process, research institutions and academia. Over the last 12 years, C Technologies has focused its efforts on serving the bioprocessing market by launching proprietary Slope Spectroscopy® products designed to enable accurate protein concentration measurement in the biologics manufacturing process. We believe the complementary nature of C Technologies' products with our chromatography and filtration portfolios and call points has the potential to drive broader adoption of their SoloVPE and FlowVPE

systems. These systems employ variable path extension (VPE) technology to measure off-line, at-line and in-line protein concentration for biologics, small molecules and other samples typically analyzed with fixed path UV-Vis methods.

C Technologies SoloVPE and FlowVPE franchise, including instruments, consumables, service and support, contributed \$21.4 million of \$23.7 million total revenue for 2018, with the remaining \$2.3 million coming from OEM partners.

Acquisition Agreement

On April 25, 2019, we entered into the Acquisition Agreement, pursuant to which we have agreed to purchase 100% of the outstanding capital stock of C Technologies, or the C Tech Stock, for a total purchase price of \$240 million. The aggregate acquisition consideration payable in exchange for the C Tech Stock consists of

Table of Contents

\$192 million in cash and \$48 million in shares of our common stock based on the 10-day trailing average of Repligen's share price two trading days prior to the closing of the Acquisition (subject to this average calculation being between \$50.40 and \$61.60 per share of Repligen stock), or the Acquisition Consideration. The Acquisition Consideration is subject to adjustment based on (i) cash and working capital provisions, (ii) the amount of C Technologies' transaction expenses and indebtedness that remain unpaid as of the closing of the Acquisition, and (iii) indemnification obligations for certain claims made following the closing.

Approximately \$3.4 million of the cash consideration will be placed into a third-party escrow account against which we may make claims for indemnification and purchase price adjustments until the 15-month anniversary of the closing of the Acquisition.

The Acquisition is conditioned upon the satisfaction or waiver of customary closing conditions. The Acquisition Agreement provides for limited termination rights, including, among others, by the mutual consent of Repligen and the Seller Parties and upon certain breaches of representations, warranties, covenants or agreements and in the event the Acquisition has not been consummated before July 24, 2019, subject to extension under certain circumstances. This offering is not contingent on the Acquisition and the Acquisition is not contingent on the completion of this offering.

First Quarter Preliminary Financial Results

We expect our total revenue for the three months ended March 31, 2019 will be between approximately \$60 million and \$61 million, compared to \$44.8 million in total revenue for the three months ended March 31, 2018. Our fully diluted earnings per share on a GAAP basis for the three months ended March 31, 2019 is expected to be between \$0.16 and \$0.17, compared to \$0.08 for the three months ended March 31, 2018. Our fully diluted non-GAAP adjusted earnings per share for the three months ended March 31, 2019 is expected to be between \$0.27 and \$0.28, compared to \$0.17 for the three months ended March 31, 2018. Adjustments to preliminary GAAP fully diluted earnings per share, reconciling to preliminary adjusted non-GAAP fully diluted earnings per share, include the following estimated adjustments: acquisition and integration costs of \$0.04, intangible amortization of \$0.06, non-cash interest expense of \$0.02, and the tax effect of intangible amortization and integration costs of (\$0.01), each per fully diluted share.

These financial results are only preliminary estimates and are based on information available to management as of the date of this prospectus supplement, and these expectations could change. Our actual financial results as of, and for the three months ended March 31, 2019 are subject to the completion of our financial statements as of, and for such period. Our independent registered public accountants have not audited, reviewed or performed any procedures with respect to such preliminary estimates and accordingly do not express an opinion or any other form of assurance with respect thereto. Complete quarterly results as of, and for the three months ended March 31, 2019 will be announced during our first quarter financial results earnings conference call and included in our Quarterly Report on Form 10-Q for the three months ended March 31, 2019.

Risks Related to Our Business and the Acquisition

Our ability to execute our business strategy and the Acquisition is subject to a number of risks of which you should be aware before you decide to invest in our common stock. In particular, you should consider the following risks, which are discussed more fully in the section entitled "Risk Factors" in this prospectus supplement and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, which is incorporated herein by reference:

Our product revenue may be negatively impacted by a number of factors, including without limitation, competition in the bioprocessing market, our reliance on a limited number of customers, our ability to

S-9

Table of Contents

develop or acquire additional bioprocessing products in the future, our ability to manufacture our bioprocessing products sufficiently and timely, and our ability to effectively penetrate the bioprocessing products market.

We may not be able to achieve sufficient market acceptance for our bioprocessing products, and our results of operations and competitive position could suffer.

If our products do not perform as expected or the reliability of the technology on which our products are based is questioned, we could experience lost revenue, delayed or reduced market acceptance, increased cost and damage to our reputation.

If we are unable to manufacture our products in sufficient quantities and in a timely manner, our operating results will be harmed, our ability to generate revenue could be diminished and our gross margin may be negatively impacted.

The Acquisition, if consummated, will create numerous risks and uncertainties which could adversely affect our financial condition and operating results.

We will incur significant transaction, integration and other costs in connection with the Acquisition and these costs may exceed the realized benefits, if any, of the synergies and efficiencies from the Acquisition.

We may encounter difficulties in integrating C Technologies' business and retaining C Technologies' key personnel.

We will be subject to business uncertainties while the Acquisition is pending, which could adversely affect our business.

The Acquisition, which is subject to a number of closing conditions, some of which are out of our control, may not close when we expect, or at all.

Other acquisitions we have completed or may in the future complete expose us to risks that could adversely affect our business, and we may not achieve the anticipated benefits of acquisitions of businesses or technologies.

Our results of operations could be negatively affected by potential fluctuations in foreign currency exchange rates.

If we are unable to hire and retain skilled personnel, including sales and marketing personnel, then we will have trouble developing and marketing our products.

If we are unable to obtain or maintain our intellectual property rights related to our products, we may not be able to compete effectively or succeed commercially.

Company Information

We were incorporated in May 1981 under the laws of the State of Delaware. Our mailing address and executive offices are located at 41 Seyon Street, Waltham, MA 02453 and our telephone number at that address is (781) 250-0111. We maintain an Internet website at the following address: www.repligen.com. The information on, or that can be accessed through, our website does not constitute part of this prospectus supplement, and the reference to our website address is included in this prospectus supplement as an inactive textual reference only. You should not rely on any such information in making the decision whether to invest in our common stock. Our common stock trades on the Nasdaq Global Select Market under the symbol RGEN.

S-10

Table of Contents**THE OFFERING**

Common stock offered by us	\$175,000,000 of shares.
Option to purchase additional shares of common stock	We have granted the underwriters an option exercisable for 30 days after the date of this prospectus supplement to purchase up to \$26,250,000 of additional shares from us.
Common stock to be outstanding immediately after this offering	46,457,659 shares (or 46,838,701 shares if the underwriters exercise in full their option to purchase additional shares), assuming sales of \$175,000,000 of shares of our common stock in this offering at an offering price of \$68.89 per share (the last reported sale price of our common stock on the Nasdaq Global Select Market on April 26, 2019). The actual number of shares issued will vary depending on the sales price in this offering.
Use of proceeds	We estimate that the net proceeds to us from this offering, after deducting the estimated underwriting discount and estimated offering expenses payable by us, will be approximately \$164.4 million (or approximately \$189.2 million if the underwriters exercise their option to purchase additional shares of common stock in full). The estimated net proceeds are based on the assumed public offering price of \$68.89 per share, which was the last reported sale price of our common stock on the Nasdaq Global Select Market on April 26, 2019. We intend to use the net proceeds from this offering to fund the cash portion of the purchase price of the Acquisition and for working capital and other general corporate purposes, including to fund possible acquisitions of, or investments in, complementary businesses, products, services and technologies. See Use of Proceeds.
Risk factors	Investing in our securities involves a high degree of risk. See Risk Factors beginning on page S-17 of this prospectus supplement and in our Annual Report on Form 10-K for the year ended December 31, 2018, which is incorporated by reference herein, for a discussion of factors that you should read and consider before investing in our securities.
Nasdaq Global Select Market symbol	RGEN

S-11

Table of Contents

The number of shares of our common stock to be outstanding immediately after this offering as shown above is based on 43,917,378 shares outstanding as of December 31, 2018. This number of shares excludes the following:

998,226 shares of our common stock issuable upon the exercise of stock options outstanding under the Second Amended and Restated 2001 Repligen Corporation Stock Plan, or the 2001 Plan, the Repligen Corporation Amended and Restated 2012 Stock Option and Incentive Plan, or the 2012 Plan, and the Repligen Corporation 2018 Stock Option and Incentive Plan, or the 2018 Plan, and collectively with the 2001 Plan and the 2012 Plan, the Plans;

705,413 shares of our common stock issuable upon the vesting of outstanding restricted stock units issued under the Plans;

2,874,751 shares of our common stock reserved for future issuance under the 2018 Plan; and

1,916,339 shares of our common stock issuable upon the conversion of our 2.125% Convertible Senior Notes due 2021, or the Notes, at the conversion price in effect as of the date of this prospectus supplement. To the extent that any of these options are exercised, restricted stock units vest, new options are issued under our equity incentive plans and subsequently exercised, we issue additional shares of common stock in the future, or the outstanding Notes convert to common stock, there will be further dilution to the investors participating in this offering.

Unless otherwise indicated, all information in this prospectus supplement assumes:

that the underwriters do not exercise their option to purchase up to \$26,250,000 of additional shares of our common stock; and

no options, restricted stock units, warrants, or shares of common stock were issued or converted after December 31, 2018.

Table of Contents**SUMMARY CONSOLIDATED FINANCIAL DATA**

The following table sets forth summary consolidated financial data and certain other non-GAAP financial operating data of the Company. The summary consolidated financial data as of December 31, 2018 and for the years ended December 31, 2018 and December 31, 2017 are derived from our audited consolidated financial statements, which are incorporated by reference herein. Our historical results are not necessarily indicative of the results that may be expected in the future. The following summary consolidated financial data should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements and the related notes thereto, all of which is incorporated by reference herein.

Consolidated Statements of Operations Data:	For the Years Ended December 31,	
	2018⁽¹⁾	2017⁽²⁾
	(Amounts in thousands, except per share data)	
Revenue:		
Products	\$ 193,891	\$ 141,089
Royalty and other revenue	141	147
Total revenue	194,032	141,236
Operating costs and expenses:		
Cost of product revenue	86,531	67,050
Research and development	15,821	8,672
Selling, general and administrative	65,692	51,509
Total operating costs and expenses	168,044	127,231
Income from operations	25,988	14,005
Other expenses, net	(4,552)	(6,757)
Income before income taxes	21,436	7,248
Income tax provision (benefit)	4,819	(21,105)
Net income	\$ 16,617	\$ 28,353
Earnings per share:		
Basic	\$ 0.38	\$ 0.74
Diluted	\$ 0.37	\$ 0.72
Weighted average common shares outstanding:		
Basic	43,767	38,234
Diluted	45,471	39,150

Other Operating Data⁽³⁾			
Non-GAAP Adjusted Income from Operations	\$	39,434	\$ 31,555
Non-GAAP Adjusted Net Income	\$	33,332	\$ 27,176
Non-GAAP Adjusted EBITDA	\$	44,956	\$ 35,105
Non-GAAP Adjusted Earnings Per Share (Diluted)	\$	0.73	\$ 0.69

S-13

Table of Contents

Balance Sheet Data:	As of December 31,	
	2018	2017
	(Amounts in thousands)	
Cash and cash equivalents	\$ 193,822	\$ 173,759
Working capital	145,897	217,571
Total assets	774,621	743,519
Long-term obligations	29,211	126,760
Accumulated deficit	(15,568)	(31,508)
Total stockholders' equity	615,568	591,548

- (1) Includes the full year impact of the acquisition of Spectrum Lifesciences, LLC on August 1, 2017.
- (2) Includes the full year impact of the acquisition of Atoll GmbH on April 1, 2016 and the acquisition of TangenX Corporation on December 14, 2016.
- (3) For a discussion of, and definitions for, Non-GAAP Adjusted Income From Operations, Non-GAAP Adjusted Net Income, and Non-GAAP Adjusted EBITDA and Non-GAAP Adjusted Earnings Per Share (Diluted), see Presentation of Non-GAAP Financial Information. See Reconciliation of Non-GAAP Financial Measures for GAAP reconciliation of these measures.

Reconciliation of Non-GAAP Financial Measures

This prospectus supplement contains certain financial measures that have been prepared other than in accordance with GAAP. These measures include Non-GAAP Adjusted Income From Operations, Non-GAAP Adjusted Net Income, Non-GAAP Adjusted EBITDA and Non-GAAP Adjusted Earnings Per Share (Diluted). We include this financial information because we believe these measures provide a more accurate comparison of our financial results between periods and more accurately reflect how management reviews its financial results. We excluded the impact of certain acquisition related items because we believe that the resulting charges do not accurately reflect the performance of our ongoing operations for the period in which such charges are incurred. The following tables present a reconciliation of such financial measures to the most comparable measures calculated in accordance with GAAP.

Reconciliation of GAAP Income from Operations to Non-GAAP Adjusted Income from Operations

	For the Years Ended	
	December 31,	December 31,
	2018	2017
	(Amounts in thousands)	
GAAP income from operations	\$ 25,988	\$ 14,005
Non-GAAP adjustments to income from operations:		
Acquisition and integration costs	2,928	7,519
Inventory step-up charges		3,816
Intangible amortization	10,518	6,215
Non-GAAP adjusted income from operations	\$ 39,434	\$ 31,555

Table of Contents***Reconciliation of GAAP Income to Non-GAAP Adjusted Net Income***

	For the Years Ended December 31,	
	2018	2017
	(Amounts in thousands)	
GAAP net income	\$ 16,617	\$ 28,353
Non-GAAP adjustments to net income:		
Acquisition and integration costs	2,928	7,519
Inventory step-up charges		3,816
Intangible amortization	10,518	6,215
Non-cash interest expense	4,248	3,977
Tax effect of intangible amortization and acquisition costs	(979)	(882)
Release of valuation allowance on deferred tax assets		(12,236)
Net impact of tax reform legislation		(9,586)
Non-GAAP adjusted net income	\$ 33,332	\$ 27,176

Reconciliation of GAAP Net Income to Non-GAAP Adjusted EBITDA

	For the Years Ended December 31,	
	2018	2017
	(Amounts in thousands)	
GAAP net income	\$ 16,617	\$ 28,353
Non-GAAP EBITDA adjustments to net income:		
Investment income	(1,895)	(371)
Interest expense	6,709	6,441
Tax provision	4,819	(21,105)
Depreciation	5,213	4,237
Amortization	10,565	6,215
EBITDA	42,028	23,770
Other non-GAAP adjustments:		
Acquisition and integration costs	2,928	7,519
Inventory step-up charges		3,816
Adjusted EBITDA	\$ 44,956	\$ 35,105

Reconciliation of GAAP Net Income Per Share to Non-GAAP Adjusted Earnings Per Share (Diluted)

	For the Years Ended December 31,	
	2018	2017
GAAP net income per share	\$ 0.37	\$ 0.72
Non-GAAP adjustments to net income:		
Acquisition and integration costs	0.06	0.19
Inventory step-up charges		0.10
Intangible amortization	0.23	0.16
Non-cash interest expense	0.09	0.10
Tax effect of intangible amortization and acquisition costs	(0.02)	(0.02)
Release of valuation allowance on deferred tax assets		(0.31)
Net impact of tax reform legislation		(0.24)
Non-GAAP adjusted earnings per share (diluted)	\$ 0.73	\$ 0.69

Note that earnings per share amounts may not add due to rounding.

S-15

Table of Contents**SUMMARY FINANCIAL DATA OF C TECHNOLOGIES**

The following tables set forth summary financial data of C Technologies as of and for the periods presented. The summary financial data as of and for the years ended December 31, 2018 and December 31, 2017 were derived from C Technologies' audited financial statements and related notes incorporated by reference in this prospectus supplement.

Statement of Operations Data	Years Ended December 31,	
	2018	2017
Revenue:		
Revenue, net	\$ 23,707,000	\$ 19,392,000
Costs and expenses:		
Cost of revenue	8,172,000	6,960,000
Research and development	649,000	360,000
Selling, general and administrative	4,299,000	6,045,000
Total operating expenses	13,120,000	13,365,000
Operating income	10,587,000	6,027,000
Other income	75,000	18,000
Net income	\$ 10,662,000	\$ 6,045,000
Balance Sheet Data	As of December 31,	
	2018	2017
Cash and cash equivalents	\$ 7,693,000	\$ 7,732,000
Working capital	2,566,000	3,741,000
Total assets	12,827,000	13,448,000
Long-term liabilities	92,000	145,000
Stockholders' equity	10,228,000	11,373,000

Table of Contents**RISK FACTORS**

Investing in our common stock involves a high degree of risk. In addition to the other information contained in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference herein and therein and any free writing prospectus we authorize for use in connection with this offering, you should carefully consider the risks discussed below and under the heading Risk Factors in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, filed with the SEC on March 1, 2019, before making a decision about investing in our securities. The risks and uncertainties discussed below and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018 may not be the only ones we face. Additional risks and uncertainties not presently known to us, or that we currently see as immaterial, may also harm our business. If any of these risks occur, our business, financial condition and operating results could be harmed, the trading price of our common stock could decline and you could lose part or all of your investment. The risks discussed below also include forward-looking statements and our actual results may differ substantially from those discussed in these forward-looking statements. See Special Note Regarding Forward-Looking Statements.

Risks Related to the Acquisition

C Technologies may have unknown liabilities or liabilities which exceed our estimates. Any such liabilities could adversely affect the financial position of the combined company.

C Technologies' business activities may have associated with them various potential liabilities relating to the conduct of its business prior to the Acquisition, including, but not limited to, potential contract claims, export control matters, historical tax matters and other potential liabilities that could adversely affect the financial position of the combined company. Upon consummation of the Acquisition, we will assume these potential liabilities. While we continue to evaluate what we believe to be the most significant of these potential liabilities, it is possible that these liabilities may exceed our expectations or that other liabilities, whether currently known or unknown to us, result in substantial losses to us. The Seller's obligations to indemnify us for general representations and warranties and certain special and fundamental representations and warranties under the Acquisition Agreement are limited to specified maximum dollar amounts and subject in certain instances to our inability to recover first from the escrow account and subsequently under the representation and warranty insurance policy we obtained in connection with the Acquisition, or the R&W Policy. If any issues arise post-closing, we may not be entitled to sufficient, or any, indemnification or recourse from the Seller or under the R&W Policy, which could have a materially adverse impact on our business and results of operations.

The Acquisition, if consummated, will create numerous risks and uncertainties, which could adversely affect our financial condition and operating results.

Strategic transactions like the Acquisition create numerous uncertainties and risks. Upon consummation of the Acquisition, C Technologies will become our wholly owned subsidiary, which will broaden our operations. However, we expect that the Acquisition will result in a loss per share on a GAAP basis for Repligen in 2019. Further, the addition of C Technologies to our business will entail many changes, including the integration of C Technologies and certain of its personnel, and changes in systems and employee benefit plans. These transition activities are complex and we may encounter unexpected difficulties, incur unexpected costs or experience business disruptions, including as a result of:

disruption of our ongoing businesses and increased commitments for the management team, including the need to divert management's attention to integration matters, particularly if we are unable to recruit, hire and retain key personnel;

difficulties in retaining C Technologies' key personnel;

difficulties in integrating C Technologies' products, systems, internal controls over financial reporting and technologies;

S-17

Table of Contents

difficulties in continuing to obtain adequate supplies and materials to meet C Technologies' manufacturing needs;

changes in market demand for C Technologies' products;

risks associated with maintaining and acquiring intellectual property;

difficulties in operating C Technologies' business profitably;

difficulties in transitioning and maintaining key manufacturer, customer, distributor and supplier relationships;

our inexperience with C Technologies' customers and our ability to meet or exceed such customers' service level expectations and C Technologies' contractual obligations with respect to such customers;

difficulties realizing the revenue projections, growth prospects, financial benefits, synergies, market position and other strategic opportunities anticipated in connection with the Acquisition;

potential disputes regarding C Technologies' intellectual property;

potential disputes with the Seller; and

difficulties in the assimilation and retention of employees, including key personnel responsible for the success of C Technologies' operations.

If any of these factors limits our ability to integrate C Technologies into our operations successfully or on a timely basis, the expectations of future results of operations, including certain synergies expected to result from the Acquisition, might not be met. As a result, we may not be able to realize the expected benefits that we seek to achieve from the Acquisition, which could result in declines in the market value of our common stock. In addition, we may be required to spend additional time or money on integration that otherwise would be spent on the development and expansion of our business, including efforts to further expand our product portfolio.

We will be subject to business uncertainties while the Acquisition is pending, which could adversely affect our business.

In connection with the pendency of the Acquisition, it is possible that certain persons with whom we or C Technologies have a business relationship may delay or defer certain business decisions or might decide to seek to terminate, change or renegotiate their relationships with us or C Technologies, as the case may be, as a result of the Acquisition, which could negatively affect our revenues, earnings and cash flows, regardless of whether the Acquisition is completed.

The unaudited pro forma financial information included elsewhere in this prospectus supplement may not be representative of our results of operations or financial condition as an integrated company, and accordingly, you have limited financial information on which to evaluate the financial prospects for the combined company.

We and C Technologies operated as separate, unrelated companies and will continue to do so until the closing of the Acquisition. Accordingly we have had no history as a combined entity and our operations have not previously been managed on a combined basis. The pro forma financial information is not necessarily indicative of the financial position or results of operations that would have actually occurred had the Acquisition been completed as of the dates indicated, nor is it indicative of the future operating results or financial position of the combined company. The pro forma financial information does not reflect future nonrecurring charges resulting from the Acquisition or potential changes in C Technologies' accounting methodologies following the closing of the Acquisition. The pro forma financial information does not reflect future events that may occur after the Acquisition, including the potential realization of operating cost savings, the incurrence of costs related to the

Table of Contents

planned integration, the reactions of our and C Technologies' customers and competitors or the termination or renegotiation of the terms of certain of C Technologies' key contracts, and does not consider potential impacts of current market conditions on revenues or expenses.

We have made certain assumptions relating to the Acquisition that may prove to be materially inaccurate.

The pro forma financial information presented in this prospectus supplement is based in part on certain assumptions regarding the Acquisition that we believe are reasonable under the circumstances, but we cannot assure you that our assumptions will prove to be accurate over time. For example, we may incur higher than expected transaction and integration costs, and general economic and business conditions could adversely affect the combined company. Because the purchase price for C Technologies is significantly more than C Technologies' net book value as of December 31, 2018, we will record a substantial amount of goodwill and other intangible assets as a result of the Acquisition. In the event that industry, competitive or technological factors become unfavorable, we may incur future impairment of the value of goodwill and other intangible assets acquired through the Acquisition. Under GAAP, we are not allowed to amortize goodwill or other indefinite-lived intangible assets. Instead, we are required to periodically determine if our goodwill and other indefinite-lived intangible assets have become impaired, in which case we would write down the impaired portion of our goodwill and/or other indefinite-lived intangible assets. If we were required to write down all or part of our goodwill or other indefinite-lived intangible assets, our net income (loss) and stockholders' equity could be materially and adversely affected.

In addition, the historical financial information of C Technologies incorporated by reference in this prospectus supplement may not be representative of the future financial results of the C Technologies' business.

The consummation of the Acquisition is subject to a number of closing conditions, some of which are out of our control. We cannot assure you that the Acquisition will be consummated on a timely basis or at all.

The completion of the Acquisition is subject to certain conditions contained in the Acquisition Agreement, some of which are beyond our control, and we can make no assurances that the transaction will close in a timely manner or at all. Such conditions include, among other things, obtaining prior consent from certain third-party contract counterparties, the accuracy of the representations and warranties made by C Technologies, compliance in all respects by all of the parties with their respective obligations under the Acquisition Agreement and the absence of any injunction or order that prohibits or restrains the consummation of the Acquisition. There can be no assurance that the conditions to closing of the Acquisition will be satisfied or waived or that other events will not intervene to delay or result in the failure to close the Acquisition. The Acquisition Agreement may be terminated by the parties thereto under certain circumstances, including, without limitation, if the Acquisition has not been completed by July 24, 2019, subject to extension under certain circumstances. Delays in closing the Acquisition or the failure to close the Acquisition may result in our incurring significant additional costs in connection with such delay or termination of the Acquisition Agreement. Any delay in closing or a failure to close the Acquisition could have a negative impact on the market price of our common stock. If we are unable to consummate the Acquisition, we will have incurred significant due diligence, legal, accounting and other transaction costs in connection with the Acquisition without realizing the anticipated benefits.

Risks Related to the Business of C Technologies

Once the Acquisition is completed, the combined company will be subject to the risks described above and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018, as well as additional risks, such as those below, which arise from C Technologies' business. References to C Technologies' below refer to the acquired C Technologies business within the combined company.

Table of Contents

C Technologies operating results and financial condition may fluctuate.

C Technologies operating results and financial condition may fluctuate from quarter to quarter and year to year for a number of reasons. The following events or occurrences, among others, could cause fluctuations in its financial performance from period to period:

development of new competitive products by others;

changes in the amount it spends to promote its products and develop new technologies;

changes in technology that may render its products obsolete;

increases in the cost of raw materials used to manufacture its products;

manufacturing and supply interruptions, including failure to comply with manufacturing specifications;

the impact of third-party patents and other intellectual property rights which C Technologies may be found to infringe, or may be required to license, and the potential damages or other costs it may be required to pay as a result of a finding that it infringes such intellectual property rights;

the loss of any third-party distributor of C Technologies products in any territory;

lower than expected demand for its products;

its response to price competition;

expenditures as a result of any potential legal actions;

the impairment and write-down of goodwill or other intangible assets;

general economic and industry conditions, including changes in interest rates affecting returns on cash balances and investments that affect customer demand;

impairment or write-down of investments or long-lived assets;

costs and outcomes of any tax audits;

fluctuations in foreign currency exchange rates; and

risks related to C Technologies' sales of products across numerous countries world-wide and the inherent international economic, regulatory, political and business risks.

As a result, the period-to-period comparisons of C Technologies' results of operations are not necessarily meaningful, and these comparisons should not be relied upon as an indication of future performance. The above factors may cause its operating results to fluctuate and adversely affect its financial condition and results of operations.

C Technologies' business is subject to cybersecurity risks that could disrupt its operations and adversely affect its and our business.

Certain of C Technologies' products incorporate software created by C Technologies or in-licensed from contract counterparties pursuant to reseller agreements. C Technologies' devices, servers and computer systems, and those of its contract counterparties that we use in our operations are vulnerable to cybersecurity risks, including cyber-attacks such as viruses and worms, denial-of-service attacks, and similar disruptions from unauthorized tampering with its servers and computer systems or those of its contract counterparties, which could lead to interruptions, delays, loss of critical data, and loss of customer confidence. Any cyber-attacks on C Technologies' systems, or those of its contract counterparties, if successful, could adversely affect C Technologies' and our business, operating results, and financial condition, and be expensive to remedy.

Table of Contents

C Technologies business could suffer as a result of manufacturing difficulties or delays.

C Technologies business could suffer if certain manufacturing or other equipment were to become inoperable for a period of time or if historical suppliers to C Technologies are unwilling or unable to continue to supply following the closing of the Acquisition. This could occur for various reasons, including catastrophic events such as earthquake, monsoon, hurricane or explosion, unexpected equipment failures or delays in obtaining components or replacements thereof, as well as construction delays or defects and other events, both within and outside of our control. Any inability to timely manufacture its products could have a material adverse effect on C Technologies results of operations, financial condition and cash flows.

If C Technologies is unable to obtain or maintain its intellectual property, its operations may be adversely affected.

C Technologies endeavors to obtain and maintain the patents and trade secrets that it utilizes in its manufacturing process. Its commercial success will depend, in part, on its ability to:

obtain and maintain patent protection for its products and manufacturing processes;

preserve its trade secrets;

operate without infringing the proprietary rights of third parties; and

obtain any necessary licenses from others on acceptable terms.

C Technologies cannot be sure that any patent applications relating to its products that it files in the future or that any currently pending applications will issue on a timely basis, if ever. Even if patents are issued, the degree of protection afforded by such patents will depend upon the scope of the patent claims, the validity and enforceability of the claims obtained and C Technologies willingness and financial ability to enforce its patents.

The patent position of life sciences companies is often highly uncertain and usually involves complex legal and scientific questions. In some cases, litigation or other proceedings may be necessary to assert claims of infringement, to enforce patents issued to C Technologies. Such litigation could result in substantial cost to C Technologies and diversion of its resources. An adverse outcome in any such litigation or proceeding could have a material adverse effect on C Technologies business, financial condition and results of operations.

C Technologies global sales operations expose it to risks and challenges associated with conducting business internationally.

C Technologies books sales globally, including in Europe, Asia and North America. C Technologies faces several risks inherent in conducting business internationally, including compliance with international and U.S. laws and regulations that apply to its international operations. These laws and regulations include data privacy requirements, tax laws, anti-competition regulations, import and trade restrictions, export requirements, U.S. laws such as the Foreign Corrupt Practices Act, and other U.S. federal laws and regulations established by the office of Foreign Asset Control, or other local foreign laws which prohibit corrupt payments to governmental officials or certain payments or remunerations to customers. Given the high level of complexity of these laws, however, there is a risk that some

provisions may be inadvertently breached by C Technologies, for example through fraudulent or negligent behavior of individual employees, its failure to comply with certain formal documentation requirements, or otherwise. Violations of these laws and regulations could result in fines, criminal sanctions against C Technologies, its officers or its employees, requirements to obtain export licenses, cessation of business activities in sanctioned countries, implementation of compliance programs, and prohibitions on the conduct of our business. Any such violations could include prohibitions on C Technologies' ability to offer its products in one or more countries and could materially damage its reputation, brand and operating results.

S-21

Table of Contents

C Technologies' foreign operations may become less attractive if political and diplomatic relations between the United States and any country where it conducts business operations deteriorates.

The relationship between the United States and the foreign countries where C Technologies conducts business operations may weaken over time. Changes in the state of the relations between any such country and the United States are difficult to predict and could adversely affect C Technologies' future operations. This could lead to a decline in its profitability. Any meaningful deterioration of the political and diplomatic relations between the United States and the relevant country could have a material adverse effect on C Technologies' operations.

C Technologies may be exposed to liabilities under the Foreign Corrupt Practices Act, and any determination that it violated the Foreign Corrupt Practices Act could have a material adverse effect on our business.

C Technologies is subject to the Foreign Corrupt Practice Act, or the FCPA, and other laws that prohibit improper payments or offers of payments to foreign governments and their officials and political parties by U.S. persons and issuers as defined by the statute for the purpose of obtaining or retaining business. A significant portion of C Technologies sales are booked in jurisdictions outside of the U.S., some of which may experience corruption. C Technologies' activities in jurisdictions outside of the U.S. create the risk of unauthorized payments or offers of payments by one of C Technologies' employees, consultants, sales agents or distributors, because these parties have not always been subject to C Technologies' control. Violations of the FCPA may result in severe criminal or civil sanctions, and C Technologies may be subject to other liabilities, which could negatively affect our business, operating results and financial condition.

Prior to the Acquisition, C Technologies has been a private company and has not previously been subject to the Sarbanes-Oxley Act of 2002, the rules and regulations of the SEC or other corporate governance requirements.

Prior to its acquisition by us, C Technologies has been a private company and has not been subject to the Sarbanes-Oxley Act of 2002, the rules and regulations of the SEC, or other corporate governance requirements to which public reporting companies may be subject. As a result, we are required to implement the appropriate internal control processes and procedures over C Technologies' financial accounting and reporting. We may incur significant legal, accounting and other expenses in efforts to meet these requirements, which may include additional staffing, infrastructure investments and improving C Technologies' finance function systems and process. Implementing the controls and procedures at C Technologies that are required to comply with the various applicable laws and regulations may place a significant burden on our management and internal resources. The diversion of management's attention and any difficulties encountered in such an implementation could adversely affect our business, financial condition and operating results.

C Technologies is treated as an S corporation under Subchapter S of the Internal Revenue Code, and claims of taxing authorities related to its status as an S corporation could harm us.

C Technologies is currently treated as an S corporation for federal and applicable state income tax purposes. As an S corporation, C Technologies elects to pass corporate income, losses, deductions, and credits through to its sole stockholder for federal and applicable state income tax purposes. Pursuant to the Acquisition Agreement, we plan to make an election under Section 338 of the Internal Revenue Code with respect to the Acquisition to treat the Acquisition as an asset acquisition rather than a stock purchase for tax purposes. However, if C Technologies has failed to satisfy one or more of the many factors required to be met in order to qualify as an S corporation and the Internal Revenue Service or other applicable tax authority were to challenge C Technologies' status as an S corporation, we may not be able to realize the intended tax benefits from the Acquisition. If C Technologies is determined in any such challenge not to have qualified, or to have violated its status as an S corporation, we may be

obligated to pay back taxes for all relevant open tax years on all of C Technologies' taxable income while it was an S corporation, interest, and possibly penalties.

S-22

Table of Contents

Furthermore, if C Technologies is determined in any such challenge not to have qualified as an S corporation at the time of the Acquisition, any tax benefits we realize as a result of the election under Section 338 of the Internal Revenue Code may be denied. Any such determination could result in additional costs to us and could have a material adverse effect on our results of operations and financial condition. While the Acquisition Agreement includes indemnification obligations for claims made following closing, including those related to C Technologies' tax status, no assurance can be given that such indemnification obligations will cover all additional costs to us as a result of any such claims.

Risks Related to Our Business

Our preliminary first quarter financial results represent management's current estimates and are subject to change.

The preliminary financial results contained in Prospectus Supplement Summary First Quarter Preliminary Financial Results are only preliminary estimates and are based on information available to management as of the date of this prospectus supplement, and these expectations could change. Our actual financial results as of, and for the three months ended March 31, 2019 are subject to the completion of our financial statements as of, and for such period. Such actual financial results will not be available until after this offering is completed and, consequently, will not be available to you prior to investing in this offering. Our actual financial results as of, and for the three months ended March 31, 2019 may differ materially from the preliminary financial results we have provided as a result of the completion of our final adjustments, review by our independent registered public accountants and other developments arising between now and the time that our financial results for such period are finalized. Our independent registered public accountants have not audited, reviewed or performed any procedures with respect to such preliminary estimates and accordingly do not express an opinion or any other form of assurance with respect thereto. Complete results as of, and for the three months ended March 31, 2019 will be announced during our first quarter financial results earnings conference call and included in our Quarterly Report on Form 10-Q for the three months ended March 31, 2019. See the other risks described in this section and Special Note Regarding Forward-Looking Statements for additional information regarding factors that could result in differences between these preliminary and the actual financial results we will report for the three months ended March 31, 2019.

Our operating results may fluctuate significantly, our customers' future purchases are difficult to predict and any failure to meet financial expectations may result in a decline in our stock price.

Our quarterly operating results may fluctuate in the future as a result of many factors such as the impact of seasonal spending patterns, changes in overall spending levels in the life sciences industry, the inability of some of our customers to consummate anticipated purchases of our products due to changes in end-user demand, and other unpredictable factors that may affect ordering patterns. Because our revenue and operating results are difficult to predict, we believe that our past results of operations are not necessarily a good indicator of our future performance. Additionally, if revenue declines in a quarter, whether due to a delay in recognizing expected revenue, adverse economic conditions or otherwise, our results of operations will be harmed because many of our expenses are relatively fixed. In particular, a large portion of our manufacturing costs, our research and development, sales and marketing and general and administrative expenses are not significantly affected by variations in revenue. Further, our gross margins are dependent on product mix. A shift in sales mix away from our higher margin products to lower margin products will adversely affect our gross margins. If our quarterly operating results fail to meet investor expectations, the price of our common stock may decline.

Despite our increasingly diversified client base, we have historically depended on a limited number of customers for a high percentage of our revenues.

The loss of, or a significant reduction in orders from, any of our large customers, including following any termination or failure to renew a long-term supply contract, would significantly reduce our revenues and harm our results of operations. If a large customer purchases fewer of our products, defers orders or fails to place

S-23

Table of Contents

additional orders with us for any reason, including for business continuity purposes, our revenue could decline, and our operating results may not meet market expectations. Under our long-term supply agreements with GE Healthcare, or GE, we supply Protein A ligands to GE from our manufacturing facilities in Lund, Sweden and Waltham, Massachusetts, or the Lund Agreement and Waltham Agreement, respectively. The Lund Agreement runs, pursuant to its terms, through December 2019 and the Waltham Agreement runs, pursuant to its terms, through December 2021. GE may elect, upon six months' prior notice to us, to reduce its minimum purchase requirements under the Lund Agreement. Even if GE so elects, GE would still be required to continue to purchase at least 50% of its global demand pursuant to the Waltham Agreement through the expiration of this agreement pursuant to its terms on December 31, 2021.

In addition, if our customers order our products, but fail to pay on time or at all, our liquidity and operating results could be materially and adversely affected. Furthermore, if any of our current or future products compete with those of any of our largest customers, these customers may place fewer orders with us or cease placing orders with us, which would negatively affect our revenues and operating results.

If we are unable to obtain or maintain our intellectual property, we may not be able to succeed commercially.

We endeavor to obtain and maintain trade secrets and, to a lesser extent with respect to the products that currently account for a majority of our revenue, patent protection when available in order to protect our products and processes from unauthorized use and to produce a financial return consistent with the significant time and expense required to bring our products to market. Our success will depend, in part, on our ability to:

preserve our trade secrets and know-how;

operate without infringing the proprietary rights of third parties;

obtain and maintain patent protection for our products and manufacturing processes; and

secure any necessary licenses from others on acceptable terms.

We consider trade secrets, know-how and other non-patent forms of market protection to be among the most important elements of our proprietary position, in particular, as it relates to the products that currently account for a majority of our revenue. We also own or have exclusive rights to a number of U.S. patents and U.S. pending patent applications as well as corresponding foreign patents and patent applications. While we continue to actively and selectively pursue patent protection and seek to expand our patent estate, particularly for our products currently in development, we cannot be sure that any patent applications that we file in the future or that currently pending applications will issue on a timely basis, if ever. We cannot be certain that we were the first to make the inventions covered by each of our pending patent applications or that we were the first to file patent applications for such inventions. Even if patents are issued, the degree of protection afforded by such patents will depend upon the:

scope of the patent claims;

validity and enforceability of the claims obtained in such patents; and

our willingness and financial ability to enforce and/or defend them.

The patent position of life sciences companies is often highly uncertain and usually involves complex legal and scientific questions. Patents which may be granted to us in certain foreign countries may be subject to opposition proceedings brought by third parties or result in suits by us, which may be costly and result in adverse consequences for us.

In some cases, litigation or other proceedings may be necessary to assert claims of infringement, to enforce patents issued to us or our licensors, to protect trade secrets, know-how or other intellectual property rights we own or to determine the scope and validity of the proprietary rights of third parties. Such litigation could result in

Table of Contents

substantial cost to us and diversion of our resources. An adverse outcome in any such litigation or proceeding could have a material adverse effect on our business, financial condition and results of operations. If our competitors prepare and file patent applications in the United States that claim technology also claimed by us, we may be required to participate in interference proceedings declared by the U.S. Patent and Trademark Office to determine priority of invention, which would result in substantial costs to us.

Risks Related to This Offering

The price of our common stock historically has been volatile, which may affect the price at which you could sell any shares of our common stock.

The market price for our common stock historically has been highly volatile and could continue to be subject to wide fluctuations, including as a result of the announcement of the Acquisition. The market price for our common stock has varied between a high price of \$68.89 on April 26, 2019 and a low price of \$36.76 on May 3, 2018 in the twelve-month period ending on April 26, 2019. Furthermore, the announcement of the Acquisition may cause additional volatility in our stock price. This volatility may affect the price at which you could sell the shares of our common stock, and the sale of substantial amounts of our common stock could adversely affect the price of our common stock. Our stock price is likely to continue to be volatile and subject to significant price and volume fluctuations, particularly while the Acquisition is pending, in response to market and other factors, including: any delay in our closing the Acquisition; variations in our quarterly operating results from our expectations or those of securities analysts or investors; downward revisions in securities analysts' estimates; and announcement by us or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments; and the other factors discussed herein and in our Annual Report on Form 10-K for the year ended December 31, 2018 or in future periodic reports.

We have broad discretion in the use of the net proceeds from this offering as well as our existing cash and we may not use them effectively.

While we intend to use a significant portion of the net proceeds from this offering to fund the cash portion of the purchase price of the Acquisition, our management will have broad discretion in the application of the net proceeds from this offering, including for any of the purposes described in the section entitled "Use of Proceeds," as well as our existing cash, and you will be relying on the judgment of our management regarding such application. You will not have the opportunity, as part of your investment decision, to assess whether the proceeds from this offering and our existing cash are being used effectively. Our management might not apply the net proceeds or our existing cash in ways that ultimately increase the value of your investment. If we do not invest or apply the net proceeds from this offering or our existing cash in ways that enhance stockholder value, we may fail to achieve expected financial results, which could cause our stock price to decline. Pending their use, we may invest the net proceeds from this offering in short-term, investment-grade, interest-bearing securities. These investments may not yield a favorable return to our stockholders.

Future sales of our common stock in the public market or the conversion of any convertible debt securities, including the Notes, could lower the market price for our common stock.

Sales of a substantial number of shares of our common stock in the public market or the perception that these sales might occur could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. We are unable to predict the effect that sales may have on the prevailing market price of our common stock.

In addition, the sale of substantial amounts of our common stock could adversely impact its price. As of December 31, 2018, we had outstanding 43,917,378 shares of our common stock, options to purchase 998,226 shares of our common stock (of which 410,760 were exercisable as of that date) and restricted stock units to

S-25

Table of Contents

acquire 705,413 shares of our common stock. The sale or the availability for sale of a large number of shares of our common stock in the public market could cause the price of our common stock to decline.

We have agreed that for a period of 75 days after the date of this prospectus supplement, and our directors and executive officers as well as the Seller, who will receive shares of common stock in the Acquisition, have agreed that for a period of 75 days after the date of this prospectus supplement, subject to specified exceptions, we or they will not offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock. Sales of stock that we issue in the Acquisition, or sales of stock by our directors, executive officers or the Seller after the expiration of the 75-day lockup period, could have a material adverse effect on the trading price of our common stock. In addition, as early as the six month anniversary of the Closing of the Acquisition, the shares of stock issued to the Seller as consideration in the Acquisition may become eligible for sale in the public market.

Table of Contents**THE ACQUISITION*****Proposed Acquisition of C Technologies***

On April 25, 2019, we entered into a stock purchase agreement, or the Acquisition Agreement, with C Technologies and Craig Harrison, as the sole stockholder of C Technologies, or the Seller and, together with C Technologies, the Seller Parties, pursuant to which we have agreed to acquire 100% of the outstanding capital stock of C Technologies for a total purchase price of \$240 million. The aggregate acquisition consideration payable in exchange for the capital stock of C Technologies consists of \$192 million in cash and \$48 million in shares of our common stock, or the Acquisition Consideration. The Acquisition Consideration is subject to adjustment based on (i) cash and working capital provisions, (ii) the amount of C Technologies' transaction expenses and indebtedness that remain unpaid as of the closing of the Acquisition, and (iii) indemnification obligations for certain claims made following the closing. Approximately \$3.4 million of the cash consideration will be placed into a third-party escrow account against which we may make claims for purchase price adjustments and for indemnification obligations until the 15-month anniversary of the closing of the Acquisition.

The Acquisition Agreement contains customary representations, warranties and covenants of Repligen, on one hand, and C Technologies and the Seller, on the other hand, including, among others, covenants by the Seller Parties with respect to the operations of the businesses of C Technologies during the period between execution of the Acquisition Agreement and the closing. The closing of the Acquisition is subject to customary closing conditions set forth in the Acquisition Agreement, including, among others, (i) the absence of any law or governmental order prohibiting the consummation of the Acquisition, (ii) the accuracy of each party's representations and warranties, subject to customary materiality standards and certain other exceptions, (iii) compliance in all material respects of the parties with their applicable covenants under the Acquisition Agreement, subject to certain exceptions, and (iv) the absence of a material adverse effect with respect to C Technologies.

The Acquisition Agreement also provides that the Seller will indemnify us following the closing for breaches of the representations, warranties and covenants of the Seller and C Technologies under the Acquisition Agreement, subject to certain specified limitations, including, among other things, limitations on the period during which we may make certain claims for indemnification and limitations on the amounts for which the Seller may be liable. In connection with the Acquisition, we have obtained representation and warranty insurance in an aggregate amount of \$24 million for breaches of representations and warranties of the Seller and C Technologies, subject to certain exceptions. Our ability to seek recourse from the Seller for breaches of certain representations and warranties is subject to our first pursuing recovery for such claims under the representation and warranty insurance policy.

We expect the Acquisition will close during the second quarter of 2019. We cannot, however, assure you that the Acquisition will be consummated on the anticipated schedule, pursuant to the foregoing terms, or at all. See Risk Factors Risks Related to the Acquisition. The Acquisition Agreement provides for limited termination rights, including, among others, by the mutual consent of Repligen and the Seller Parties and upon certain breaches of representations, warranties, covenants or agreements and in the event the Acquisition has not been consummated before July 24, 2019, subject to extension under certain circumstances. This offering is not contingent on the Acquisition and the Acquisition is not contingent on the completion of this offering.

The Acquisition and the Acquisition Agreement are described in more detail in our Current Report on Form 8-K filed with the SEC on April 26, 2019, or the Acquisition 8-K, which is incorporated by reference into this prospectus supplement and the accompanying prospectus. The foregoing summary description does not purport to be complete and is qualified in its entirety by reference to the complete text of the Acquisition Agreement, which was filed as Exhibit 2.1 to the Acquisition 8-K.

Table of Contents

The Acquisition Agreement has been filed as an exhibit to our public reports filed with the SEC, and has been incorporated by reference into this prospectus supplement and the accompanying prospectus. The assertions embodied in the representation, warranties and covenants set forth in the Acquisition Agreement were made solely for purposes of the Acquisition Agreement between the parties and may be subject to important qualifications and limitations agreed to by the parties in connection with negotiating its terms, including being qualified by confidential disclosures exchanged between the parties in connection with the execution of the Acquisition Agreement. Moreover, the representations and warranties may be subject to a contractual standard of materiality that may be different from what may be viewed as material to investors or security holders, or may have been used for the purpose of allocating risk between the parties to the Acquisition Agreement rather than establishing matters as facts. Information concerning the subject matter of the representations and warranties may change after the date of the Acquisition Agreement, which subsequent information may or may not be fully reflected in our public disclosures. For the foregoing reasons, you should not rely on the warranties as statements of factual information at the time they were made or otherwise.

Financing Commitment Letter

Concurrently with the execution of the Acquisition Agreement, we entered into a commitment letter with JPMorgan Chase Bank, N.A., an affiliate of one of the underwriters in this offering, pursuant to which, among other things, it, subject to customary conditions, committed to provide, directly or through its affiliates or assignees, to us a senior secured 364-day term loan facility of \$125 million, or the Bridge Loan. If we consummate this offering, we do not expect to draw on the Bridge Loan.

Table of Contents

USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately \$164.4 million, or approximately \$189.2 million if the underwriters exercise in full their option to purchase additional shares of our common stock, after deducting underwriting discounts and commissions and estimated offering expenses. We intend to use the net proceeds of this offering to fund the cash portion of the purchase price of the Acquisition and for working capital and other general corporate purposes, including to fund possible acquisitions of, or investments in, complementary businesses, products, services and technologies. We have not entered into any agreements or commitments with respect to any acquisitions, other than the Acquisition, or investments at this time.

Our expected use of net proceeds from this offering represents our current intentions based upon our present plans and business condition. As of the date of this prospectus supplement, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering or the amounts that we will actually spend on the uses set forth above.

Pending the use of the net proceeds from this offering, we intend to invest the net proceeds in short-term, interest-bearing, investment-grade securities, certificates of deposit or government securities.

This offering is not contingent on the Acquisition and the Acquisition is not contingent on the completion of this offering.

Table of Contents**CAPITALIZATION**

The following table sets forth our cash and cash equivalents and our capitalization as of December 31, 2018:

on an actual basis;

on a pro forma basis to reflect the Acquisition and the drawdown of the Bridge Loan (see footnote 2 below) as if they had occurred on December 31, 2018; and

on a pro forma as adjusted basis to further reflect the sale of 2,540,281 shares of our common stock in this offering, based on an assumed public offering price of \$68.89 per share (the last reported sale price of our common stock on the Nasdaq Global Select Market on April 26, 2019), after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this table in conjunction with *Use of Proceeds* appearing elsewhere in this prospectus supplement, as well as *Management's Discussion and Analysis of Financial Condition and Results of Operations* and our unaudited condensed consolidated financial statements and the related notes thereto, incorporated by reference into this prospectus supplement from our Annual Report on Form 10-K for the year ended December 31, 2018.

	As of December 31, 2018		
	Actual	Pro Forma	Pro Forma, as Adjusted
	(Unaudited, amounts in thousands)		
Cash and cash equivalents	\$ 193,822	\$ 123,642	\$ 288,017
2.125% convertible senior notes due 2021 ⁽¹⁾	114,989	114,989	114,989
Bridge Loan ⁽²⁾		123,438	123,438
Stockholders' equity:			
Preferred stock, \$0.01 par value, 5,000,000 shares authorized, no shares issued or outstanding actual, and as adjusted			
Common stock, \$0.01 par value; 80,000,000 shares authorized; 43,917,378 shares issued and outstanding actual, 44,774,520 shares issued and outstanding pro forma, and 47,314,801 shares issued and outstanding pro forma, as adjusted ⁽³⁾	439	448	473
Additional paid-in-capital ⁽³⁾	642,590	690,581	854,931
Accumulated other comprehensive loss	(11,893)	(11,893)	(11,893)
Accumulated deficit	(15,568)	(14,260)	(14,260)
Total stockholders' equity	615,568	664,876	829,251

Total capitalization	\$ 730,557	\$ 903,303	\$ 1,067,678
----------------------	------------	------------	--------------

Each \$1.00 increase (decrease) in the assumed public offering price of \$68.89 per share (the last reported sale price of our common stock on the Nasdaq Global Select Market on April 26, 2019) would (decrease) increase the number of shares of common stock to be issued by us in this offering by approximately 37,000, assuming the aggregate dollar amount of shares offered by us, as set forth on the cover page of this prospectus supplement, remains the same. We may also increase or decrease the aggregate dollar amount of shares we are offering. The pro forma and pro forma as adjusted information above is illustrative only and will be adjusted based on the actual public offering price and other terms of this offering determined at pricing.

Table of Contents

- (1) In accordance with ASC 470-20, a convertible debt instrument (such as the Notes) that may be wholly or partially settled in cash is required to be separated into a liability and an equity component, such that interest expense reflects the issuer's nonexchangeable debt interest rate. Upon issuance, a debt discount is recognized as a decrease in debt and an increase in equity. The debt component accretes up to the principal amount over the expected term of the debt. ASC 470-20 does not affect the actual amount that we are required to repay, and the amount shown in the table above for the Notes is the aggregate principal amount of the Notes without reflecting the debt discount or fees and expenses that we are required to recognize or the increase in paid-in capital on our consolidated balance sheet.
- (2) Pro forma and pro forma as adjusted figures reflect the drawdown in full of the Bridge Loan as if it had occurred on December 31, 2018. If we consummate this offering, we do not expect to draw on the Bridge Loan. If we consummate this offering and do not draw on the Bridge Loan, our pro forma as adjusted cash and cash equivalents as of December 31, 2018, on a pro forma as adjusted basis to reflect the Acquisition as if it had occurred on December 31, 2018, would be \$164.6 million.
- (3) The common stock shown in the table above excludes 998,226 shares of common stock issuable upon the exercise of stock options under the Plans at a weighted average exercise price of \$27.54 per share, 705,413 shares of common stock issuable upon the exercise of restricted stock units under the Plans and 2,874,751 shares of our common stock reserved for future issuance under the 2018 Plan, all as of December 31, 2018. In addition, the common stock shown in the table above excludes the shares of common stock reserved for issuance upon conversion of the Notes.

Table of Contents

DIVIDEND POLICY

We have not paid any dividends since our inception and do not intend to pay any dividends on our common stock in the foreseeable future. We anticipate that we will retain all earnings, if any, to support our operations. Any future determination as to the payment of dividends will be at the sole discretion of our Board of Directors and will depend on our financial condition, results of operations, capital requirements, contractual obligations and other factors our Board of Directors deems relevant.

S-32

Table of Contents

BUSINESS OF C TECHNOLOGIES

Overview

C Technologies, Inc. is a privately-held technology company founded in 1985 and headquartered in Bridgewater, NJ.

C Technologies' business consists of two major product categories (i) biotechnology, or Biotech, and (ii) Legacy and Other. Through its Biotech category, C Technologies sells analytical instruments, consumables and accessories designed to allow bioprocessing technicians to measure the protein concentration of a liquid sample using C Technologies' Slope Spectroscopy method, which eliminates the need for manual sample dilution. C Technologies' lead product, the SoloVPE instrument platform, was launched in 2008 for off-line and at-line protein concentration measurements conducted in quality control, process development and manufacturing labs in the production of biological therapeutics. The C Technologies' FlowVPE platform, an extension of the SoloVPE technology, is designed to allow end users to make in-line protein concentration measurements in filtration, chromatography and fill-finish applications, designed to allow for real-time process monitoring.

The Biotech product category represented over 90% of C Technologies' 2018 revenues. Within the Biotech category, SoloVPE and FlowVPE instrument and consumables sales represented approximately 80% of 2018 revenues, and accessories, service and software represented about 20% of 2018 revenues.

The Legacy and Other category of C Technologies' business, which represents less than 10% of its 2018 revenues, consists of fiber optic products that are produced for longstanding customers in the medical device and semiconductor industries.

C Technologies' has a direct sales presence in North America, the United Kingdom and Ireland, and currently sells its products through third-party distributors in Western Europe, Japan and China.

Manufacturing

C Technologies manufactures its instruments and consumable products at its facility in Bridgewater, NJ. C Technologies manufactures a substantial majority of its products, which represented a substantial portion of its sales in 2018. Products not manufactured by C Technologies are purchased to its specifications from selected manufacturing sources. C Technologies has generally been able to obtain adequate supplies of products and materials to meet its needs; however no assurance can be given that shortages will not occur in the future.

Competition

C Technologies competes directly with a small number of medium and large-sized companies in its industry, including Thermo Fisher, GE Healthcare and other smaller competitors. Though we believe C Technologies' is a market leader in spectroscopy-based protein measurement, larger competitors have greater financial resources, larger commercial and product development teams, broader name recognition, and benefit from greater economies of scale. Competition may result in price reductions, reduced gross margins and loss of market share, any of which could have a material adverse effect on C Technologies' business, financial condition and results of operations.

Intellectual Property

C Technologies holds nine issued patents related to its instruments and method for measuring concentration and five pending patent applications. C Technologies' significant trademarks are the brand names SoloVPE, FlowVPE and

Slope Spectroscopy. These brands are marketed worldwide. These significant trademarks and the related registered logos have various expiration dates and are expected to be renewed indefinitely.

S-33

Table of Contents

Government Regulation

C Technologies engages principally in the business of selling products, which are not foods or food additives, drugs or cosmetics within the meaning of the federal Food, Drug and Cosmetic Act, as amended. C Technologies believes that it is in compliance in all material respects with federal, state and local regulations relating to the manufacture, sale and distribution of its products. The following are brief summaries of some of the federal law and regulations which may have an impact on C Technologies' business. These summaries are only illustrative of the extensive regulatory requirements of the federal, state and local governments and are not intended to provide the specific details of each law or regulation.

The Clean Air Act, as amended, and the regulations promulgated there under, regulates the emission of harmful pollutants into the waters of the United States. Federal or state regulatory agencies may require companies to acquire permits, perform monitoring and install control equipment for certain pollutants.

The Clean Water Act, as amended, and the regulations promulgated there under, regulates the discharge of harmful pollutants into the waters of the United States. Federal or state regulatory agencies may require companies to acquire permits, perform monitoring and treat waste water before discharge to the waters of the United States or a Publicly Owned Treatment Works.

The Occupational Safety and Health Act of 1970, including the Hazard Communication Standard, and the regulations promulgated there under, require the labeling of hazard substance containers, the supplying of Material Safety Data Sheets on hazards products to customers and hazards substances to which an employee may be exposed in the workplace, the training of employees in the handling of hazardous substances and the use of the MSDS, along with other health and safety programs.

Facilities

C Technologies currently leases a 19,254 square foot building in Bridgewater, NJ, which houses the main office, headquarters and principal manufacturing facility. This lease is set to expire on October 17, 2019.

In June of 2019, C Technologies plans to relocate to a 24,414 square foot building in Bridgewater, NJ, which will serve as their new main office, headquarters and principal manufacturing facility. The lease for the new building will expire on February 4, 2028.

Employees

As of March 31, 2019, C Technologies had 70 employees which are all located in the United States. None of C Technologies' U.S. employees are covered by collective bargaining agreements.

Table of Contents

UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION

On April 25, 2019, we entered into the Acquisition Agreement for the acquisition of C Technologies. See The Acquisition. The following unaudited pro forma condensed combined financial statements are based on our audited historical consolidated financial statements and those of C Technologies, which are incorporated by reference in this prospectus supplement, after giving effect to the Acquisition, and were prepared based upon the purchase method of accounting in accordance with GAAP and by applying the assumptions and adjustments described in the notes accompanying the pro forma financial statements.

The unaudited pro forma condensed combined statement of operations are based on our audited historical consolidated financial statements and the audited historical consolidated financial statements of C Technologies, which are incorporated by reference in this prospectus supplement. The unaudited pro forma condensed combined balance sheet gives effect to the Acquisition as if such acquisition had occurred on December 31, 2018. The unaudited pro forma condensed combined statement of operations gives effect to the Acquisition as if such acquisition had occurred on January 1, 2018. The unaudited pro forma condensed combined financial statements include all material pro forma adjustments necessary for this purpose that are directly attributable to the Acquisition, are factually supportable, and, with respect to the pro forma condensed combined statements of operations, expected to have a continuing impact on the combined results following the Acquisition.

The unaudited pro forma condensed combined financial information herein should be read in conjunction with the historical financial statements and the related notes thereto of Repligen Corporation which are presented in the Annual Report on Form 10-K for the year ended December 31, 2018, incorporated by reference in this prospectus supplement and the financial statements of C Technologies that are incorporated by reference in this prospectus supplement.

The unaudited pro forma condensed combined financial statements of operations is presented for illustrative purposes only and are not necessarily indicative of the operating results or financial position that would have been achieved if the Acquisition had been consummated as of the beginning of the period presented, nor are they necessarily indicative of the future operating results of the combined company. The pro forma adjustments are based upon available information and assumptions that we believe are reasonable. No effect has been given in the pro forma financial statements for synergistic benefits that may be realized through the combination or costs that may be incurred in integrating operations.

Table of Contents**Repligen Corporation****Pro Forma Condensed Combined Consolidated Balance Sheet****December 31, 2018****(Unaudited, amounts in thousands)**

	Historical Repligen	Historical C Technologies, Inc.	Pro Forma Adjustments	Notes (1)	Pro Forma Combined
Assets					
Current assets					
Cash and cash equivalents	\$ 193,822	\$ 7,693	\$ (77,873)	(a), (k)	\$ 123,642
Restricted cash			35,904	(i)	35,904
Accounts receivable, net	33,015	3,302			36,317
Other receivables	136				136
Unbilled receivables	2,602				2,602
Inventories	42,263	1,740	1,236	(b)	45,239
Prepaid expenses and other current assets	3,901	31			3,932
Total current assets	275,739	12,766	(40,733)		247,772
Property and equipment, net	32,180	44			32,224
Intangible assets, net	135,438		87,860	(c)	223,298
Goodwill	326,735		142,458	(d)	469,193
Deferred Tax Asset - LT	4,355				4,355
Other assets	174	17			191
Total assets	\$ 774,621	\$ 12,827	\$ 189,585		\$ 977,033
Liabilities and Stockholders					
Equity					
Current liabilities					
Accounts payable	\$ 10,489	\$ 345	\$		\$ 10,834
Accrued liabilities	15,865	2,162	29,926	(e), (f), (g), (h), (i)	47,953
Convertible senior notes, current portion	103,488				103,488
Short term debt			123,438	(k)	123,438
Total current liabilities	129,842	2,507	153,364		285,713
Deferred tax liabilities	25,086		(2,842)	(n), (o), (p), (q)	22,244
Other long-term liabilities	4,125	92	(17)	(e)	4,200
Total liabilities	159,053	2,599	150,505		312,157

Commitments and contingencies					
<u>Stockholders equity:</u>					
Preferred stock					
Common stock	439		9	(m)	448
Additional paid-in capital	642,590		47,991	(m)	690,581
Accumulated other comprehensive loss	(11,893)				(11,893)
Accumulated (deficit) earnings	(15,568)	10,228	(8,920)	(f), (g), (n), (o), (p)	(14,260)
Total stockholders equity	615,568	10,228	39,080		664,876
Total liabilities and stockholders equity	\$ 774,621	\$ 12,827	\$ 189,585		\$ 977,033

(1) See Note 4 to the accompanying notes to unaudited pro forma condensed combined financial statements.

Table of Contents**Repligen Corporation****Pro Forma Condensed Combined Consolidated Statements of Operations****For the Twelve Months Ended December 31, 2018****(Unaudited, amounts in thousands, except share and per share data)**

	Historical Repligen Year Ended December 31, 2018	Historical C Technologies, Inc. Year Ended December 31, 2018	C Technologies, Inc. Pro Forma Adjustments	Notes (1)	Pro Forma Combined
Revenue	\$ 194,032	\$ 23,707	\$ (154)	(e)	\$ 217,585
Cost of revenue	86,531	8,172			94,703
Gross profit	107,501	15,535	(154)		122,882
Research and development	15,821	649			16,470
Selling, general and administrative	65,692	4,299	5,879	(c), (j)	75,870
Total operating expenses	81,513	4,948	5,879		92,340
Operating income (loss)	25,988	10,587	(6,033)		30,542
Other (expense) income, net	(4,552)	75	(14,025)	(l)	(18,502)
Income (loss) before income taxes	21,436	10,662	(20,058)		12,040
Income tax expense	4,819		(2,840)	(n), (o), (p)	1,979
Net income (loss)	\$ 16,617	\$ 10,662	\$ (17,218)		\$ 10,061
Net income per share:					
Basic	\$ 0.38				\$ 0.23
Diluted	\$ 0.37				\$ 0.22
Weighted average common shares outstanding:					
Basic	43,767,402		857,142	(m)	44,624,544
Diluted	45,471,169		857,142	(m)	46,328,311

(1) See Note 4 to the accompanying notes to unaudited pro forma condensed combined financial statements.

S-37

Table of Contents

Repligen Corporation

Notes to Unaudited Pro Forma Condensed Combined

Consolidated Financial Statements For the Year

Ended December 31, 2018

1. Description of the Transaction

On April 25, 2019, Repligen Corporation (Repligen) agreed to acquire C Technologies, Inc. (C Technologies), pursuant to the terms of a Stock Purchase Agreement (the Agreement), by and among Repligen and C Technologies (such acquisition, the Acquisition).

The Acquisition will be accounted for as a purchase of a business under ASC 805, Business Combinations. The cash paid for the Acquisition is estimated to be \$201.3 million, \$192.3 million of which will be consideration transferred pursuant to ASC 805, and \$9.0 million of which will be compensation expense for future employment, and an estimated 857,142 unregistered common shares totaling \$48.0 million (based on an assumed per share price of \$56.00), for a total purchase price of \$240.3 million. The estimate of \$201.3 million in cash paid for the Acquisition consists of \$192.0 million per the terms of the Agreement, \$7.7 million for the existing cash balance of C Technologies at December 31, 2018, and \$1.6 million of estimated state tax liabilities assumed that are directly related to the 338(h)(10) election expected to be made as part of the Acquisition.

2. Basis of Presentation

The accompanying unaudited pro forma condensed combined financial statements combine the historical consolidated financial statements of Repligen and those of C Technologies after giving effect to the Acquisition, using the acquisition method of accounting in accordance with Accounting Standards Codification (ASC) 805, Business Combinations , and applying the assumptions and adjustments described in the accompanying notes.

The unaudited pro forma condensed combined statements of operations combine Repligen s operating results for the year ended December 31, 2018, with the operating results of C Technologies for the year ended December 31, 2018. The unaudited pro forma condensed combined statements of operations give effect to the Acquisition as if such acquisitions had occurred on January 1, 2018.

The historical consolidated financial statements have been adjusted in the pro forma condensed combined financial statements to give effect to pro forma events that are (1) directly attributable to the business combination, (2) factually supportable and (3) with respect to the pro forma condensed combined statements of operations, expected to have a continuing impact on the combined results following the business combination. The unaudited pro forma condensed combined financial information herein should be read in conjunction with the historical financial statements and the related notes thereto of Repligen which are presented in the Annual Report on Form 10-K for the year ended December 31, 2018, filed on March 1, 2019 (File No. 000-14656), and the historical financial statements of C Technologies. The unaudited pro forma condensed combined financial statements are presented for illustrative purposes only and are not necessarily indicative of the operating results that would have been achieved if the Acquisition had been consummated as of the beginning of the period presented, nor are they necessarily indicative of the future operating results of the combined company. No effect has been given in these pro forma financial statements for synergistic benefits that may be realized through the combination or costs that may be incurred in integrating operations.

3. Estimated consideration and preliminary purchase price allocation

Repligen accounted for the Acquisition as the purchase of a business under U.S. GAAP. Under the acquisition method of accounting, the assets of C Technologies will be recorded as of the acquisition date, at their respective fair values, and consolidated with those of Repligen. The fair value of the net tangible assets acquired is estimated to be approximately \$10.0 million, the fair value of the intangible assets acquired is estimated to be

S-38

Table of Contents

approximately \$87.9 million, and the residual goodwill is estimated to be approximately \$142.4 million. The estimated consideration and preliminary purchase price information has been prepared using a preliminary valuation. The final purchase price allocation will be completed upon closing of the transaction. The preparation of the valuation required the use of significant assumptions and estimates. Critical estimates included, but were not limited to, future expected cash flows, including projected revenues and expenses, and the applicable discount rates. These estimates were based on assumptions that Repligen believes to be reasonable. However, actual results may differ from these estimates.

The total consideration transferred follows (amounts in thousands):

Cash consideration	\$ 192,335
Equity consideration	48,000
Plus: estimated working capital adjustment	
Total consideration transferred	\$ 240,335

Acquisition related costs are not included as a component of consideration transferred, but are expensed in the periods in which the costs are incurred. In connection with the transaction, an additional \$9.0 million in cash will be due to employees based on their continued employment with Repligen one year after the date of the close of the Acquisition.

Fair Value of Net Assets Acquired

Repligen has performed a preliminary valuation analysis of the fair market value of C Technologies' assets to be acquired and liabilities to be assumed. Using the total consideration for the Acquisition, Repligen has estimated the allocations to such assets and liabilities. The following table summarizes the allocation of the preliminary purchase price as of December 31, 2018 (amounts in thousands):

Cash and cash equivalents	\$ 7,693
Restricted cash	26,928
Accounts receivable	3,302
Inventory	2,976
Prepaid expenses and other current assets	31
Fixed assets	44
Customer relationships	57,390
Developed technology	28,390
Trademark and tradename	1,560
Non-competition agreements	520
Other assets	17
Goodwill	142,458
Accounts payable	(345)
Accrued liabilities	(29,282)
Deferred revenue	(1,176)
Deferred tax liability	(171)

Fair value of net assets acquired	\$ 240,335
--	-------------------

This preliminary purchase price allocation has been used to prepare pro forma adjustments in the pro forma balance sheet and income statement and is subject to adjustment as purchase accounting is finalized. The final purchase price allocation will be determined when Repligen has completed the detailed valuations and necessary calculations. The final allocation could differ materially from the preliminary allocation used in the pro forma adjustments. The final allocation may include, but not be limited to: (1) changes in fair values of property, plant

S-39

Table of Contents

and equipment, (2) changes in allocations to intangible assets such as trade names, technology and customer relationships as well as goodwill and (3) other changes to assets and liabilities.

4. Pro Forma Adjustments

This note should be read in conjunction with Notes 1 and 2. Adjustments included in the pro forma adjustments column of the pro forma condensed combined consolidated statement of operations and the pro forma condensed combined consolidated balance sheet include the following, as indicated in the Notes column thereto:

- (a) An adjustment to cash of \$201.3 million for the estimated cash portion of the transaction price, \$192.3 million of which will be consideration transferred, and \$9.0 million of which will be compensation expense for future employment.
- (b) This adjustment represents the estimated step-up of C Technologies' inventory by \$1.2 million from the carrying value. The fair value calculation is preliminary and subject to change. After the closing of the Acquisition, the step-up in inventory fair value of \$1.2 million will increase cost of sales as the inventory is sold. This increase is not reflected in the pro forma condensed combined statements of operations because it does not have a continuing impact.
- (c) Reflects the adjustment of intangible assets to be acquired by Repligen to their estimated fair values of \$87.9 million, with a continuing annual amortization impact of \$5.2 million. As part of the preliminary valuation analysis, Repligen identified intangible assets, including developed technology, customer relationships, trade names, and a non-compete. The fair value of identifiable intangible assets is determined primarily using the income approach, which requires a forecast of all the expected future cash flows. These preliminary estimates of fair value and estimated useful lives will likely differ from final amounts Repligen will calculate after completing a detailed valuation analysis, and the difference could have a material effect on the accompanying unaudited pro forma condensed combined financial statements.
- (d) Reflects adjustment to record goodwill associated with the Acquisition.
- (e) Represents the estimated adjustment to decrease the assumed deferred revenue obligations to a fair value of approximately \$1.2 million, a \$171 thousand decrease from the carrying value. The calculation of fair value is preliminary and subject to change. The fair value was determined based on the estimated costs to fulfill the remaining extended maintenance obligations plus a normal profit margin. After the acquisition, this adjustment will have a continuing impact and will reduce revenue related to the assumed performance obligations as the maintenance services are provided over the next one to three years. The pro forma adjustment to reduce revenue by \$154 thousand for the year ended December 31, 2018 reflects the difference between prepayments related to extended maintenance arrangements and the fair value of the assumed performance obligations as they are satisfied, assuming the transaction was completed on January 1, 2018.
- (f) To adjust for bonuses totaling \$700 thousand with key management personnel tied to integration activities related to the Acquisition. The adjustment is reflected as an increase to accrued liabilities and accumulated deficit. The pro forma statement of operations does not reflect the adjustment as it will not have a continuing impact on operations.
- (g) To adjust for \$1.0 million of estimated transaction costs incurred subsequent to December 31, 2018 that are directly related to the Acquisition. The transaction cost amount has been recorded as an adjustment to accrued liabilities and accumulated deficit, and has not been reflected in the pro forma condensed combined consolidated income statement as these costs will not have a continuing impact.

S-40

Table of Contents

(h) To adjust for \$1.4 million of estimated state tax liabilities assumed that are directly related to the 338(h)(10) election expected to be made as part of the Acquisition. The estimated amount of the state tax liability has been recorded as an adjustment to accrued liabilities and has not been reflected in the pro forma condensed combined consolidated income statement as these liabilities will not have a continuing impact.

(i) To adjust for \$35.9 million of estimated bonuses payable to C Technologies employees that are directly related to the Acquisition. The amount of the bonus will be paid in two installments, the initial \$26.9 million of which is an assumed liability will be paid at the time of closing, and the final \$9.0 million due to employees based on their continued employment with the Company one year after the date of the close of the Acquisition.

(j) This pro forma adjustment represents a stock based compensation expense increase of \$718 thousand for the year ended December 31, 2018 related to time and performance based restricted stock units issued to two key executives as part of the Acquisition. The fair value of the awards assumes a stock price of \$68.89, and will be recognized over post-combination service periods ranging from two to three years assuming the service and performance conditions are achieved.

(k) Adjustment includes the proceeds from a \$125 million bridge loan to finance the cash consideration portion of total consideration, less \$1.6 million in debt issuance costs incurred to obtain the bridge loan financing. This obligation is classified as current debt based on its term of one year amortization. See (l) below for the amortization of these issuance costs.

(l) The adjustment to record interest expense assumes the Bridge Loan was obtained on January 1, 2018 and was outstanding for the entire year ended December 31, 2018. The base interest rate assumed for purposes of preparing this pro forma financial information is 5.22%. This rate comprises the one-year LIBOR rate of 2.72% as of March 26, 2019, plus certain margins specified in the bridge facility agreement. The resulting pro forma adjustment consists of \$12.5 million of interest expense and \$1.6 million of debt issuance cost amortization.

(m) Represents the elimination of the historical equity of C Technologies, and the increase to common stock and additional paid in capital resulting from the estimated issuance of 857,142 shares of common stock at a price of \$56.00 for the equity portion of the transaction price. The par value of common stock is \$0.01 and results in a \$9 thousand increase to common stock. The value in excess of par, or \$48.0 million is recognized in additional paid-in capital. These preliminary estimates of shares issued and share price will likely differ from the final amounts, and the difference could have a material effect on the accompanying unaudited pro forma condensed combined financial statements.

(n) Represents the tax effect of pro forma adjustments made as a result of the Acquisition, based on an estimated tax rate of 25%. The resulting tax benefit of \$5.1 million is a decrease to accumulated deficit.

(o) Represents the tax effect of C Technologies' income being taxed at a corporate rate versus an S-Corporation, based on an estimated tax rate of 25%. The resulting tax expense increase of \$2.6 million is an increase to accumulated deficit.

(p) This adjustment reflects the increase in Repligen's U.S. Federal Section 250 Deduction for 2018. The Section 250 Deduction is a deduction for Foreign-Derived Intangible Income and Global Intangible Low-Taxed Income that can be limited based on U.S. federal taxable income computed without regards to those deductions. Assuming the transaction closed on January 1, 2018, the Acquisition would result in an increase to U.S. taxable income in 2018, which reduces the limitation on Repligen Section 250 deduction and increases the amount allowed to be deducted for 2018. The resulting estimated tax benefit of \$0.5 million is a decrease to accumulated deficit.

(q) Represents the tax effect related to the difference between book and tax useful lives of intangible assets acquired as a result of the Acquisition. This estimate of \$171 thousand in deferred tax liabilities balances is preliminary and subject to change based on management's final determination of the fair value of assets acquired and liabilities assumed by jurisdiction.

S-41

Table of Contents

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATION OF C TECHNOLOGIES

The information contained in this section is based on C Technologies' historical financial condition and results of operations and does not give effect to the Acquisition. The Acquisition will have a material impact on the results of operations of the C Technologies business going forward. You should read the following in conjunction with the sections of this prospectus supplement entitled Risk Factors, Special Note Regarding Forward-Looking Statements, Prospectus Supplement Summary Risks Related to Our Business and the Acquisition, Business of C Technologies and C Technologies' audited and unaudited financial statements and the related notes thereto incorporated by reference in this prospectus supplement.

Overview

C Technologies' business consists of two major product categories (i) biotechnology, or Biotech, and (ii) Legacy and Other. Through its Biotech category, C Technologies sells instruments, consumables and accessories that are designed to allow bioprocessing technicians to measure the protein concentration of a liquid sample using C Technologies' Slope Spectroscopy method, which eliminates the need for manual sample dilution. C Technologies' lead product, the SoloVPE instrument platform, was launched in 2008 for off-line and at-line protein concentration measurements conducted in quality control, process development and manufacturing labs in the production of biological therapeutics. C Technologies' FlowVPE platform, an extension of the SoloVPE technology, was designed to allow end users to make in-line protein concentration measurements in filtration, chromatography and fill-finish applications, designed to allow for real-time process monitoring.

C Technologies is located in Bridgewater, NJ, and has a direct sales presence in North America, the United Kingdom and Ireland, and currently sells its products through third-party distributors in Western Europe, Japan and China.

Critical Accounting Policies

C Technologies defines critical accounting policies as the ones which are necessary to understand C Technologies' financial results. C Technologies believes the most critical accounting issues that require the most complex and difficult judgments and that are particularly susceptible to significant change to its financial condition and results of operations include the following:

Basis of Presentation

Use of Estimates

Cash and Cash Equivalents

Concentrations of Credit Risks for Cash

Accounts Receivable

Inventories

Long-Lived Assets

Income Taxes

Sales Taxes

Defined Contribution Profit Sharing 401(k) Plan

Revenue Recognition

Product Returns and Warranties

S-42

Table of Contents

Shipping and Handling

Research and Development

Advertising Costs

Fair Value Measurements

For more information about C Technologies' critical accounting policies, see Note 2 to C Technologies' annual audited financial statements incorporated by reference in this prospectus supplement.

Results of Operations***Year Ended December 31, 2018 Compared to the Year Ended December 31, 2017***

	Years Ended December 31,	
	2018	2017
Revenue, net	\$ 23,707,000	\$ 19,392,000
Operating expenses:		
Cost of revenue	8,172,000	6,960,000
Research and development	649,000	360,000
Selling, general and administrative	4,299,000	6,045,000
Total operating expenses	13,120,000	13,365,000
Income from operations	10,587,000	6,027,000
Other income	75,000	18,000
Net income	\$ 10,662,000	\$ 6,045,000

Net revenue

Net revenue for the years ended December 31, 2018 and 2017 were \$23.7 million and \$19.4 million, respectively, representing an increase of \$4.3 million or 22%, primarily as a result of sales growth in systems and service products of 24% and 30%, respectively, over the prior year. This sales growth in 2018 represented a 25% increase in revenue from North America and a 76% increase in revenue from Asia and the rest of the world.

Operating expenses

Cost of revenue was approximately \$8.2 million and \$7.0 million for the years ended December 31, 2018 and 2017, respectively, representing an increase of \$1.2 million or 17%. This increase was driven by increased material and labor costs directly related to growth of revenues in fiscal year 2018.

Research and development expenses were approximately \$649 thousand and \$360 thousand for the years ended December 31, 2018 and 2017, respectively, an increase of \$289 thousand or 80%. This increase was primarily the result of increased headcount in research and development personnel during 2018.

Selling, general and administrative expenses were approximately \$4.3 million and \$6.0 million for the years ended December 31, 2018 and 2017, respectively, a decrease of \$1.7 million or 29%. This decrease was primarily driven by a \$2.2 million decrease in executive compensation paid during 2018 as compared to the prior year, partially offset by increased selling expense and general overhead costs.

Table of Contents*Other Income*

Other income is primarily related to interest income, which increased by \$57 thousand for the year ended December 31, 2018 as compared to the prior year due to higher average invested cash balances and higher interest rates on such cash balances.

Liquidity and Capital Resources

C Technologies has financed operations through revenues derived from product sales.

At December 31, 2018, C Technologies had cash and cash equivalents of \$7.7 million compared to \$7.7 million at December 31, 2017.

The following table summarizes C Technologies sources and uses of cash for each of the periods presented:

	Years Ended December 31,	
	2018	2017
Net cash provided by operating activities	\$ 11,802,000	\$ 5,202,000
Net cash used in investing activities	\$ (34,000)	\$
Net cash used in financing activities	\$ (11,807,000)	\$ (3,904,000)

Operating Activities

For the year ended December 31, 2018, operating activities provided cash of \$11.8 million reflecting net income of \$10.7 million, net favorable changes in working capital accounts of \$1.1 million and depreciation expense of \$18,000. The favorable changes in working capital accounts were driven by \$830 thousand of net cash provided by changes in accounts receivable, \$297 thousand in net cash from changes in accrued expenses and \$230 thousand of net increases in deferred revenue. This was slightly offset by \$235 thousand in net cash consumed due to an increase in inventories, prepaid expenses and accounts payable.

For the year ended December 31, 2017, operating activities provided net cash of \$5.2 million reflecting net income of \$6.0 million, net unfavorable changes in working capital accounts of \$867 thousand and \$24 thousand related to depreciation expense. An increase in accounts receivable consumed \$1.2 million of cash and was primarily due to the timing of and cash receipts from customers. An increase in accounts payable decreased available cash by \$78 thousand due to unfavorable timing of payments on accounts payable. Increases in inventories, prepaid expenses and other assets consumed \$46 thousand of cash. This was slightly offset by \$384 thousand in net increases of deferred revenue and \$121 thousand in cash from net changes in accrued expenses.

Investing Activities

Cash used in investing activities was \$34 thousand for the year ended December 31, 2018, primarily due to purchases of manufacturing equipment.

Financing Activities

For the years ended December 31, 2018 and 2017, C Technologies used \$11.8 million and \$3.9 million, respectively, of cash in financing activities related to distributions to the stockholder.

Off-Balance Sheet Arrangements

C Technologies does not have any off-balance sheet arrangements, as defined in the rules and regulations of the Securities and Exchange Commission.

S-44

Table of Contents**Commitments and Contingencies**

As of December 31, 2018, C Technologies had the following fixed obligations and commitments:

	Total	Less than one year	One to three years	Three to five years	Over five years
Operating lease obligations	\$ 5,607,000	\$ 185,000	\$ 1,132,000	\$ 1,177,000	\$ 3,113,000
Total	\$ 5,607,000	\$ 185,000	\$ 1,132,000	\$ 1,177,000	\$ 3,113,000

S-45

Table of Contents**UNDERWRITING**

We are offering the shares of common stock described in this prospectus through a number of underwriters. J.P. Morgan Securities LLC and Stephens Inc. are acting as joint book-running managers of the offering and as representatives of the underwriters. We have entered into an underwriting agreement with the underwriters. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters, and each underwriter has severally agreed to purchase, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus, the number of shares of common stock listed next to its name in the following table:

Name	Number of Shares
J.P. Morgan Securities LLC	
Stephens Inc.	
Janney Montgomery Scott LLC	
Total	

The underwriters are committed to purchase all the common shares offered by us if they purchase any shares. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may also be increased or the offering may be terminated.

The underwriters propose to offer the common shares directly to the public at the initial public offering price set forth on the cover page of this prospectus and to certain dealers at that price less a concession not in excess of \$ per share. Any such dealers may resell shares to certain other brokers or dealers at a discount of up to \$ per share from the initial public offering price. After the initial offering of the shares to the public, the offering price and other selling terms may be changed by the underwriters. Sales of shares made outside of the United States may be made by affiliates of the underwriters.

The underwriters have an option to buy up to additional shares of common stock from us. The underwriters have 30 days from the date of this prospectus to exercise this option to purchase additional shares. If any shares are purchased with this option to purchase additional shares, the underwriters will purchase shares in approximately the same proportion as shown in the table above. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the shares are being offered.

The underwriting fee is equal to the public offering price per share of common stock less the amount paid by the underwriters to us per share of common stock. The underwriting fee is \$ per share. The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters assuming both no exercise and full exercise of the underwriters option to purchase additional shares.

	Without option to purchase additional shares exercise	With full option to purchase additional shares exercise
Per Share	\$	\$
Total	\$	\$

We estimate that the total expenses of this offering, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding the underwriting discounts and commissions, will be approximately \$1.0 million. We have agreed to reimburse the underwriters in an amount of up to \$10,000 for expenses relating to the compliance of this offering with the rules of the Financial Industry Regulatory Authority, Inc., or FINRA. In accordance with FINRA Rule 5110, this reimbursed FINRA fee is deemed underwriting compensation for this offering. We have also granted J.P. Morgan Securities LLC the right to participate in certain future financings by the Company in connection with the Acquisition, which is deemed 1% in underwriting compensation for this offering.

S-46

Table of Contents

A prospectus in electronic format may be made available on the web sites maintained by one or more underwriters, or selling group members, if any, participating in the offering. The underwriters may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters and selling group members that may make Internet distributions on the same basis as other allocations.

We have agreed that we will not, without the prior written consent of J.P. Morgan Securities LLC, for a period of 75 days after the date of this prospectus supplement (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any common stock or any securities convertible into or exercisable or exchangeable for common stock, (ii) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of common stock, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of common stock or such other securities, in cash or otherwise, (iii) file any registration statement under the Securities Act in respect of any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock; or (iv) publicly announce the intention to do any of the foregoing; provided that we may (1) effect the transactions contemplated by the underwriting agreement, (2) issue common stock or options to purchase common stock, or issue common stock upon exercise of options, pursuant to any stock option, stock bonus or other stock plan or arrangement, (3) permit or allow the vesting of or removal or lapse of restrictions on restricted stock or other awards under existing employee benefits plans or agreements in accordance with the terms of such plans or agreements, (4) file any registration statement on Form S-8 or a successor form thereto in respect of securities offered pursuant to the terms of existing employee benefits, (5) issue options, restricted stock units or other awards to newly hired employees, (6) issue common stock upon conversion of our outstanding convertible notes, (7) issue common stock to one or more counterparties in connection with the consummation of any merger, asset acquisition or other business combination transaction, or any strategic partnership, joint venture, collaboration or license of any business, products, technology in an amount that does not exceed 10% of the total outstanding common stock immediately following the completion of the offering and (8) effect the transactions contemplated in the Acquisition Agreement.

Our directors and executive officers, as well as the Seller who will receive shares of common stock in the Acquisition, have entered into lock-up agreements with the underwriters prior to the commencement of this offering pursuant to which each of these persons or entities, for a period of 75 days after the date of this prospectus supplement, may not, without the prior written consent of J.P. Morgan Securities LLC, offer, sell, contract to sell (including any short sale), pledge, hypothecate, establish an open put equivalent position within the meaning of Rule 16a-1(h) under the Exchange Act, grant any option, right or warrant for the sale of, purchase any option or contract to sell, sell any option or contract to purchase, or otherwise encumber, dispose of or transfer, or grant any rights with respect to, directly or indirectly, any shares of common stock or securities convertible into or exchangeable or exercisable for any shares of common stock, enter into a transaction which would have the same effect, or enter into any swap, hedge or other arrangement that transfers, in whole or in part, any of the economic consequences of ownership of the common stock, whether any such aforementioned transaction is to be settled by delivery of the common stock or such other securities, in cash or otherwise, or publicly disclose the intention to make any such offer, sale, pledge or disposition, or to enter into any such transaction, swap, hedge or other arrangement, without, in each case, the prior written consent of J.P. Morgan Securities LLC, which consent may be withheld in J.P. Morgan Securities LLC's sole discretion. Such restrictions will not, subject to certain limitations, apply to: (i) the receipt, exercise, cashless or net exercise, vesting or forfeiture of, or removal or lapse of restrictions on, any stock option, common stock issued upon exercise of a stock option, restricted stock, restricted stock unit or other awards pursuant to any existing employee benefit plan or agreement, (ii) transactions relating to common stock acquired in open market transactions after this offering, (iii) the transfer or sale of common stock, or securities convertible into or exchangeable or exercisable for any shares of common stock, by operation of law, such as pursuant to a domestic relations order or in connection with a divorce

settlement, (iv) forfeitures of common stock to the Company

S-47

Table of Contents

during the 75 day lock-up period only to satisfy tax withholding requirements, (v) the entry into any trading plan established pursuant to Rule 10b5-1 under the Exchange Act, provided that such plan does not provide for any sales or other dispositions of common stock or securities convertible into or exchangeable or exercisable for any shares of common stock during the 75 day lock-up period, (vi) transfers as a bona fide gift to a charity or educational institution or, in some cases, to a charitable trust (vii) transfers or distributions pursuant to any bona fide third-party tender offer, merger, consolidation or other similar transaction made to all holders of the Company's capital stock involving a change of control of the Company, or (viii) the broker-assisted cashless exercise to cover any tax liability associated with the exercise of any stock options scheduled to expire within 60 days of net exercise.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933.

Our common stock is listed on the Nasdaq Global Select Market under the symbol RGEN.

In connection with this offering, the underwriters may engage in stabilizing transactions, which involves making bids for, purchasing and selling shares of common stock in the open market for the purpose of preventing or retarding a decline in the market price of the common stock while this offering is in progress. These stabilizing transactions may include making short sales of the common stock, which involves the sale by the underwriters of a greater number of shares of common stock than they are required to purchase in this offering, and purchasing shares of common stock on the open market to cover positions created by short sales. Short sales may be covered shorts, which are short positions in an amount not greater than the underwriters' option to purchase additional shares referred to above, or may be naked shorts, which are short positions in excess of that amount. The underwriters may close out any covered short position either by exercising their option to purchase additional shares, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the price of shares available for purchase in the open market compared to the price at which the underwriters may purchase shares through the option to purchase additional shares. 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 that could adversely affect investors who purchase in this offering. To the extent that the underwriters create a naked short position, they will purchase shares in the open market to cover the position.

The underwriters have advised us that, pursuant to Regulation M of the Securities Act of 1933, they may also engage in other activities that stabilize, maintain or otherwise affect the price of the common stock, including the imposition of penalty bids. This means that if the representatives of the underwriters purchase common stock in the open market in stabilizing transactions or to cover short sales, the representatives can require the underwriters that sold those shares as part of this offering to repay the underwriting discount received by them.

These activities may have the effect of raising or maintaining the market price of the common stock or preventing or retarding a decline in the market price of the common stock, and, as a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them at any time. The underwriters may carry out these transactions on the Nasdaq Global Select Market, in the over-the-counter market or otherwise.

In addition, in connection with this offering certain of the underwriters (and selling group members) may engage in passive market making transactions in our common stock on The Nasdaq Stock Market prior to the pricing and completion of this offering. Passive market making consists of displaying bids on The Nasdaq Stock Market no higher than the bid prices of independent market makers and making purchases at prices no higher than these independent bids and effected in response to order flow. Net purchases by a passive market maker on each day are generally limited to a specified percentage of the passive market maker's average daily

Table of Contents

trading volume in the common stock during a specified period and must be discontinued when such limit is reached. Passive market making may cause the price of our common stock to be higher than the price that otherwise would exist in the open market in the absence of these transactions. If passive market making is commenced, it may be discontinued at any time.

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus supplement in any jurisdiction where action for that purpose is required. The securities offered by this prospectus supplement may not be offered or sold, directly or indirectly, nor may this prospectus supplement or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus supplement comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus supplement. This prospectus supplement does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus supplement in any jurisdiction in which such an offer or a solicitation is unlawful.

Certain of the underwriters and their affiliates have provided in the past to us and our affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. For example, JPMorgan Chase Bank, N.A., an affiliate of one of the underwriters in this offering, is the lender under the Bridge Loan. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future.

Notice to Prospective Investors in the European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State, no offer of shares may be made to the public in that Relevant Member State other than:

- A. to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- B. to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of the representatives; or
- C. in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of shares shall require the Company or the representatives to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive and each person who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed that the shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any shares to the public other than their offer or resale in a Relevant Member State to qualified investors as so defined or in circumstances in which the prior consent of the representatives has been

obtained to each such proposed offer or resale.

For the purpose of these provisions, the expression "an offer of shares to the public" in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase the shares, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression "Prospectus Directive" means Directive 2003/71/EC (including by Directive 2010/73/EU) and includes any relevant implementing measure in the Relevant Member State.

S-49

Table of Contents

Notice to Prospective Investors in the United Kingdom

In the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are qualified investors (as defined in the Prospectus Directive) (i) who have professional experience in matters relating to investments falling within Article 19 (5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the Order) and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as relevant persons) or otherwise in circumstances which have not resulted and will not result in an offer to the public of the shares in the United Kingdom within the meaning of the Financial Services and Markets Act 2000.

Any person in the United Kingdom that is not a relevant person should not act or rely on the information included in this document or use it as basis for taking any action. In the United Kingdom, any investment or investment activity that this document relates to may be made or taken exclusively by relevant persons.

Notice to Prospective Investors in Canada

The shares of common stock may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the shares of common stock must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Table of Contents

LEGAL MATTERS

Certain legal matters relating to the shares of common stock offered hereby will be passed upon for us by Goodwin Procter LLP, Boston, Massachusetts. Covington & Burling LLP, New York, New York, is counsel to the underwriters in connection with this offering.

S-51

Table of Contents

EXPERTS

The consolidated financial statements of Repligen Corporation appearing in Repligen Corporation's Annual Report on Form 10-K for the year ended December 31, 2018, and the effectiveness of Repligen Corporation's internal control over financial reporting as of December 31, 2018 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their reports thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

The consolidated financial statements of C Technologies as of December 31, 2018, incorporated in this prospectus supplement by reference to our Current Report on Form 8-K/A filed with the SEC on April 29, 2019, have been audited by Friedman LLP, independent public accounting firm, as stated in its report with respect thereto also incorporated herein by reference to such Current Report. Such consolidated financial statements are incorporated herein by reference in reliance upon such reports given on the authority of Friedman LLP as experts in accounting and auditing.

S-52

Table of Contents

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the shares of common stock offered by this prospectus supplement. This prospectus supplement does not contain all the information set forth in the registration statement and its exhibits and schedules, portions of which have been omitted as permitted by the rules and regulations of the SEC. You should read the registration statement and its exhibits and schedules carefully for provisions that may be important to you.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website at www.sec.gov that contains periodic and current reports, proxy and information statements, and other information regarding registrants that are filed electronically with the SEC.

These documents are also available, free of charge, through the Investors section of our website, which is located at www.repligen.com. Information contained on our website is not incorporated by reference into this prospectus supplement or the accompanying prospectus and you should not consider information on our website to be part of this prospectus supplement or the accompanying prospectus.

S-53

Table of Contents

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference the information and reports we file with it, which means that we can disclose important information to you by referring you to these documents. The information incorporated by reference is an important part of this prospectus supplement, and information that we file after the date hereof with the SEC will automatically update and supersede the information already incorporated by reference. We are incorporating by reference the documents listed below, which we have already filed with the SEC, and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, except as to any portion of any future report or document that is not deemed filed under such provisions, after the date of this prospectus supplement and prior to the termination of this offering:

Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC on March 1, 2019;

The information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2018 from our definitive proxy statement on Schedule 14A (other than information furnished rather than filed), which was filed with the SEC on April 18, 2019;

Current Reports on Form 8-K filed with the SEC on April 26, 2019 (other than information furnished rather than filed) and Form 8-K/A filed with the SEC on April 29, 2019; and

The description of our common stock contained in our registration statement on Form 8-A, which was filed with the SEC in paper format on May 27, 1986, including any amendment or report filed for the purpose of updating such description.

You may request a copy of these filings, and any exhibits we have specifically incorporated by reference as an exhibit in this prospectus supplement, at no cost by writing or telephoning us at the following:

Repligen Corporation

41 Seyon Street, Bldg.1, Suite 100

Waltham, MA, 02453

Attention: Secretary, (781) 250-0111

You may also access these documents, free of charge on the SEC's website at www.sec.gov or on our website at www.repligen.com. The information contained on, or that can be accessed through, our website does not constitute part of this prospectus supplement, and the reference to our website address is included in this prospectus supplement as an inactive textual reference only.

Table of Contents

PROSPECTUS

REPLIGEN CORPORATION

Common Stock

Preferred Stock

Debt Securities

Warrants

Units

By this prospectus, we may offer and sell from time to time, in one or more offerings, common stock, preferred stock, debt securities, warrants or any combination thereof as described in this prospectus. The warrants may be convertible into or exercisable or exchangeable for common stock or preferred stock, the preferred stock may be convertible into or exchangeable for common stock and the debt securities may be convertible into or exchangeable for common stock or preferred stock. You should carefully read this prospectus, any prospectus supplement and any related free writing prospectus, as well as any documents incorporated in any of the foregoing by reference, before you invest in our securities. This prospectus may not be used to sell our securities unless accompanied by a prospectus supplement. The prospectus supplement or any related free writing prospectus may also add to, update, supplement or clarify information contained in this prospectus.

Our common stock is traded on the Nasdaq Global Select Market under the symbol RGEN.

We may offer and sell our securities to or through one or more agents, underwriters, dealers or other third parties or directly to one or more purchasers on a continuous or delayed basis. If agents, underwriters or dealers are used to sell our securities, we will name them and describe their compensation in a prospectus supplement. The price to the public of our securities and the net proceeds we expect to receive from the sale of such securities will also be set forth in a prospectus supplement.

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. YOU SHOULD CAREFULLY REVIEW THE RISKS AND UNCERTAINTIES REFERENCED UNDER THE HEADING RISK FACTORS ON PAGE 5 OF THIS PROSPECTUS AS WELL AS THOSE CONTAINED IN THE APPLICABLE PROSPECTUS SUPPLEMENT AND ANY RELATED FREE WRITING PROSPECTUS, AND IN THE OTHER DOCUMENTS THAT ARE INCORPORATED BY REFERENCE INTO THIS PROSPECTUS OR THE APPLICABLE PROSPECTUS SUPPLEMENT.

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.

The date of this prospectus is April 29, 2019.

Table of Contents

TABLE OF CONTENTS

<u>ABOUT THIS PROSPECTUS</u>	1
<u>WHERE YOU CAN FIND ADDITIONAL INFORMATION</u>	2
<u>INCORPORATION OF CERTAIN INFORMATION BY REFERENCE</u>	3
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	4
<u>RISK FACTORS</u>	5
<u>ABOUT THE COMPANY</u>	6
<u>DESCRIPTION OF CAPITAL STOCK</u>	7
<u>DESCRIPTION OF DEBT SECURITIES</u>	10
<u>DESCRIPTION OF WARRANTS</u>	18
<u>DESCRIPTION OF UNITS</u>	19
<u>FORMS OF SECURITIES</u>	20
<u>USE OF PROCEEDS</u>	22
<u>PLAN OF DISTRIBUTION</u>	23
<u>LEGAL MATTERS</u>	25
<u>EXPERTS</u>	26

We are responsible for the information contained and incorporated by reference in this prospectus, in any accompanying prospectus supplement, and in any related free writing prospectus we prepare or authorize. We have not authorized anyone to give you any other information, and we take no responsibility for any other information that others may give you. If you are in a jurisdiction where offers to sell, or solicitations of offers to purchase, the securities offered by this documentation are unlawful, or if you are a person to whom it is unlawful to direct these types of activities, then the offer presented in this document does not extend to you. The information contained in this document speaks only as of the date of this document, unless the information specifically indicates that another date applies. Our business, financial condition, results of operations and prospectus may have changed since those dates.

Table of Contents

ABOUT THIS PROSPECTUS

This prospectus is part of an automatic shelf 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, or the Securities Act. Under this shelf registration, we may offer shares of our common stock and preferred stock, various series of warrants to purchase common stock or preferred stock, debt securities or any combination thereof, from time to time in one or more offerings. This prospectus only provides you with a general description of the securities we may offer. Each time we offer our securities under this prospectus, we will provide a prospectus supplement that will contain more specific information about the specific terms of the offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. This prospectus may not be used to sell our securities unless accompanied by a prospectus supplement. Each such prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in documents incorporated by reference into this prospectus. We urge you to carefully read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the headings *Where You Can Find Additional Information* and *Incorporation of Certain Information by Reference* before you invest in our securities.

We have not authorized anyone to provide you with information in addition to or different from that contained or incorporated by reference into this prospectus, any applicable prospectus supplement and any related free writing prospectus. We take no responsibility for, and can provide no assurances as to the reliability of, any information not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus that we may authorize to be provided to you. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading *Where You Can Find Additional Information*.

Unless otherwise mentioned or unless the context requires otherwise, throughout this prospectus, any applicable prospectus supplement and any related free writing prospectus, the words *Repligen*, *we*, *us*, *our*, *the company* or similar references refer to Repligen Corporation and its subsidiaries; and the term *securities* refers collectively to our common stock, preferred stock, warrants to purchase common stock or preferred stock, debt securities, or any combination of the foregoing securities.

This prospectus and the information incorporated herein by reference contain references to trademarks, service marks and trade names owned by us or other companies. Solely for convenience, trademarks, service marks and trade names referred to in this prospectus and the information incorporated herein, including logos, artwork, and other visual displays, may appear without the ® or ™ symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks, service marks and trade names. We do not intend our use or display of other companies' trade names,

service marks or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus, any applicable prospectus supplement or any related free writing prospectus are the property of their respective owners.

Table of Contents

WHERE YOU CAN FIND ADDITIONAL INFORMATION

This prospectus is part of a registration statement that we have filed with the SEC. Certain information in the registration statement has been omitted from this prospectus in accordance with the rules of the SEC. We are subject to the information requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and, in accordance therewith, file annual, quarterly and special reports, proxy statements and other information with the SEC. These documents also may be accessed through the SEC's Electronic Data Gathering, Analysis and Retrieval system, or EDGAR, via electronic means, including the SEC's home page on the Internet (www.sec.gov).

We have the authority to designate and issue more than one class or series of stock having various preferences, conversion and other rights, voting powers, restrictions, limitations as to dividends, qualifications, and terms and conditions of redemption. See Description of Securities. We will furnish a full statement of the relative rights and preferences of each class or series of our stock which has been so designated and any restrictions on the ownership or transfer of our stock to any stockholder upon request and without charge. Written requests for such copies should be directed to Repligen Corporation, 41 Seyon Street, Bldg.1, Suite 100, Waltham, MA 02453, Attention: Secretary, or by telephone request to (781) 250-0111. Our website is located at <http://www.repligen.com>. Information contained on our website is not incorporated by reference into this prospectus and, therefore, is not part of this prospectus or any accompanying prospectus supplement.

Table of Contents

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference the information and reports we file with it, which means that we can disclose important information to you by referring you to these documents. The information incorporated by reference is an important part of this prospectus, and information that we file after the date hereof with the SEC will automatically update and supersede the information already incorporated by reference. We are incorporating by reference the documents listed below, which we have already filed with the SEC, and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, except as to any portion of any future report or document that is not deemed filed under such provisions, after the date of this prospectus and prior to the termination of this offering:

Annual Report on Form 10-K for the year ended December 31, 2018, as filed with the SEC on March 1, 2019;

The information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2018 from our definitive proxy statement on Schedule 14A (other than information furnished rather than filed), which was filed with the SEC on April 18, 2019;

Current Reports on Form 8-K filed with the SEC on April 26, 2019 (other than information furnished rather than filed) and Form 8-K/A filed with the SEC on April 29, 2019; and

The description of our common stock contained in our registration statement on Form 8-A, which was filed with the SEC in paper format on May 27, 1986, including any amendment or report filed for the purpose of updating such description.

You may request a copy of these filings, and any exhibits we have specifically incorporated by reference as an exhibit in this prospectus, at no cost by writing or telephoning us at the following:

Repligen Corporation, 41 Seyon Street, Bldg.1, Suite 100, Waltham, MA, 02453, Attention: Secretary, (781) 250-0111.

You may also access these documents, free of charge on the SEC's website at www.sec.gov or on our website at www.repligen.com. The information contained in, or that can be accessed through, our website is not part of this prospectus.

This prospectus is part of a registration statement we filed with the SEC. We have incorporated exhibits into this registration statement. You should read the exhibits carefully for provisions that may be important to you.

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference, contains forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. Any statements about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and may be forward-looking. These statements are often, but are not always, made through the use of words or phrases such as may, will, could, should, expects, intends, plans, anticipates, believes, estimates, predicts, continue, and similar expressions, or the negative of these terms, or similar expressions. Accordingly, these statements involve estimates, assumptions and uncertainties which could cause actual results to differ materially from those expressed in them. Any forward-looking statements are qualified in their entirety by reference to the factors discussed throughout this report, and in particular those factors referenced in the section Risk Factors.

This prospectus, including the sections entitled About this Prospectus and Risk Factors, contains forward-looking statements that are based on our management's belief and assumptions and on information currently available to our management. These statements relate to future events or our future financial performance, and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. Forward-looking statements include, but are not limited to, statements about: the acceptance by the market of our products, the implementation of our business model, strategic plans for our business, including potential acquisitions of businesses or new products, products and technology, the scope of protection we are able to establish and maintain for intellectual property rights covering our products and technology, estimates of our expenses, future revenues and capital requirements, our ability to maintain and establish key customer relationships, and our financial performance, developments relating to our competitors and our industry. Given these uncertainties, you should not place undue reliance on these forward-looking statements. You should read this prospectus, any supplements to this prospectus and the documents that we incorporate by reference in this prospectus with the understanding that our actual future results may be materially different from what we expect. Except as required by law, we do not undertake any obligation to update or revise any forward-looking statements contained in this prospectus or any supplement to this prospectus, whether as a result of new information, future events or otherwise.

Table of Contents

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider the risks described in the documents incorporated by reference in this prospectus and any prospectus supplement, as well as other information we include or incorporate by reference into this prospectus and any applicable prospectus supplement, before making an investment decision. Our business, financial condition or results of operations could be materially adversely affected by the materialization of any of these risks. The trading price of our securities could decline due to the materialization of any of these risks, and you may lose all or part of your investment. This prospectus and the documents incorporated herein by reference also contain forward-looking statements that involve risks and uncertainties. Actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks described in the documents incorporated herein by reference, including (i) our most recent annual report on Form 10-K which is on file with the SEC and is incorporated herein by reference and (ii) other documents we file with the SEC that are deemed incorporated by reference into this prospectus.

Table of Contents

ABOUT THE COMPANY

We are a leading provider of advanced bioprocessing technologies and solutions used in the process of manufacturing biologic drugs. Our products are made to substantially increase biopharmaceutical manufacturing efficiencies and flexibility. As the global biologics market continues to experience strong growth and expansion, our customers primarily large biopharmaceutical companies and contract manufacturing organizations face critical production cost, capacity, quality and time pressures that our products are made to address. Our commitment to bioprocessing is helping to set new standards for the way our customers manufacture biologic drugs, including monoclonal antibodies, recombinant proteins, vaccines and gene therapies. We are dedicated to inspiring advances in bioprocessing as a trusted partner in the production of biologic drugs that improve human health worldwide.

We currently operate as one bioprocessing business, with a comprehensive suite of products to serve both upstream and downstream processes in biologic drug manufacturing. Building on over 35 years of industry expertise, we have developed a broad and diversified product portfolio that reflects our commitment to build a best-in-class bioprocessing technology company with a world-class direct sales and commercial organization.

We are committed to capitalizing on growth opportunities and maximizing the value of our product platform through both organic growth initiatives (internal innovation and commercial leverage) and targeted acquisitions.

We were incorporated in May 1981 under the laws of the State of Delaware. Our mailing address and executive offices are located at 41 Seyon Street, Waltham, MA 02453 and our telephone number at that address is (781) 250-0111. We maintain an Internet website at the following address: www.repligen.com. The information on, or that can be accessed through, our website does not constitute part of this prospectus, and you should not rely on any such information in making the decision whether to purchase our common stock. Our common stock trades on the Nasdaq Global Select Market under the symbol RGEN.

Table of Contents

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is intended as a summary only. This description is based upon, and is qualified by reference to, our restated certificate of incorporation, as amended, or certificate of incorporation, our second amended and restated by-laws, or by-laws, and applicable provisions of the Delaware General Corporation Law. This summary is not intended to be a complete description of our capital stock. You should read our certificate of incorporation and by-laws for the provisions that are important to you.

General

Our authorized capital stock consists of 80,000,000 shares of common stock, par value \$0.01 per share, and 5,000,000 shares of preferred stock, par value \$0.01 per share, all of which shares of preferred stock are undesignated.

As of March 29, 2019, 44,073,998 shares of our common stock were outstanding and held by 352 stockholders of record.

Common Stock

We may issue shares of our common stock from time to time. Holders of shares of our common stock are entitled to one vote for each share held of record on all matters to be voted on by stockholders and do not have cumulative voting rights. Subject to the rights of holders of any future series of undesignated preferred stock which may be designated, each share of the outstanding common stock is entitled to participate ratably in any distribution of net assets made to the stockholders in the event of our liquidation, dissolution or winding up and is entitled to participate equally in dividends if and when declared by our board of directors. There are no redemption, sinking fund, conversion or preemptive rights with respect to shares of common stock. All shares of common stock have equal rights and preferences.

Exchange Listing

Our common stock is listed on the Nasdaq Global Select Market under the trading symbol RGEN.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC. The transfer agent and registrar's address is 6201 1st Avenue Brooklyn, N.Y. 11219, and its telephone number is (718) 921-8200.

Preferred Stock

We may issue shares of preferred stock in one or more series. Our board of directors will determine the rights, preferences and privileges of the shares of each wholly unissued series, and any qualifications, limitations or restrictions thereon, including dividend rights, conversion rights, preemptive rights, voting rights, terms of redemption or repurchase, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of any series. Convertible preferred stock will be convertible into our common stock or exchangeable for other securities. Conversion may be mandatory or at the holder's option and would be at prescribed conversion rates. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting, or the designation of, such series, any or all of which may be greater than the rights of common stock. The issuance of our preferred stock

could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon our liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of our company or other corporate action.

Table of Contents

Anti-Takeover Effects of our Certificate of Incorporation and By-laws and Delaware Law

Our certificate of incorporation and our by-laws include a number of provisions that may have the effect of delaying, deferring or preventing another party from acquiring control of us and encouraging persons considering unsolicited tender offers or other unilateral takeover proposals to negotiate with our board of directors rather than pursue non-negotiated takeover attempts. These provisions include the items described below.

Meetings of Stockholders

Our by-laws provide that a special meeting of the stockholders may be called by the President, the Chairman, the board of directors, or upon the written request of one or more stockholders holding in the aggregate at least 30% of the outstanding shares of our stock entitled to vote at such meeting; and only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders. Our by-laws limit the business that may be conducted at an annual meeting of stockholders to those matters properly brought before the meeting.

Advance Notice Requirements

Our by-laws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of stockholder proposals must be timely given in writing to our corporate secretary prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 60 days nor more than 90 days prior to the first anniversary date of the annual meeting for the preceding year. Our by-laws specify the requirements as to form and content of all stockholders' notices. These requirements may preclude stockholders from bringing matters before the stockholders at an annual or special meeting.

Amendment to Certificate of Incorporation and By-laws

Any amendment of our certificate of incorporation must first be approved by a majority of our board of directors, and if required by law, must thereafter be approved by a majority of the outstanding shares entitled to vote on the amendment and a majority of the outstanding shares of each class entitled to vote thereon as a class. Our by-laws may be amended by the affirmative vote of a majority of the directors then in office, subject to any limitations set forth in the by-laws; and may also be amended by the affirmative vote of the holders of a majority of the outstanding shares entitled to vote at any regular meeting of stockholders, or at any special meeting of stockholders provided notice of such alteration, amendment, repeal or adoption of new by-laws must have been stated in the notice of such special meeting.

Undesignated Preferred Stock

Our certificate of incorporation provides for 5,000,000 authorized shares of preferred stock. The existence of authorized but unissued shares of preferred stock may enable our board of directors to render more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise. For example, if in the due exercise of its fiduciary obligations, our board of directors were to determine that a takeover proposal is not in the best interests of us or our stockholders, our board of directors could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer or insurgent stockholder or stockholder group. In this regard, our certificate of incorporation grants our board of directors broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amount

of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of us.

Table of Contents

Section 203 of the Delaware General Corporation Law

We are subject to the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a business combination with an interested stockholder for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

before the stockholder became interested, our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;

upon consummation of the transaction which 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 commenced, excluding for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances, but not the outstanding voting stock owned by the interested stockholder; or

at or after the time the stockholder became interested, the business combination was approved by our board of directors and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

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

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

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

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

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

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

Table of Contents

DESCRIPTION OF DEBT SECURITIES

We may offer debt securities which may be senior or subordinated. We refer to senior debt securities and subordinated debt securities collectively as debt securities. Each series of debt securities may have different terms. The following description summarizes the general terms and provisions of the debt securities. We will describe the specific terms of the debt securities and the extent, if any, to which the general provisions summarized below apply to any series of debt securities in the prospectus supplement relating to the series and any applicable free writing prospectus that we authorize to be delivered.

We may issue senior debt securities from time to time, in one or more series under a senior indenture to be entered into between us and a senior trustee to be named in a prospectus supplement, which we refer to as the senior trustee. We may issue subordinated debt securities from time to time, in one or more series under a subordinated indenture to be entered into between us and a subordinated trustee to be named in a prospectus supplement, which we refer to as the subordinated trustee. The forms of senior indenture and subordinated indenture are filed as exhibits to the registration statement of which this prospectus forms a part. Together, the senior indenture and the subordinated indenture are referred to as the indentures and, together, the senior trustee and the subordinated trustee are referred to as the trustees. This prospectus briefly outlines some of the provisions of the indentures. The following summary of the material provisions of the indentures is qualified in its entirety by the provisions of the indentures, including definitions of certain terms used in the indentures. Wherever we refer to particular sections or defined terms of the indentures, those sections or defined terms are incorporated by reference in this prospectus or the applicable prospectus supplement. You should review the indentures that are filed as exhibits to the registration statement of which this prospectus forms a part for additional information. As used in this prospectus, the term debt securities includes the debt securities being offered by this prospectus and all other debt securities issued by us under the indentures.

General

The indentures:

do not limit the amount of debt securities that we may issue;

allow us to issue debt securities in one or more series;

do not require us to issue all of the debt securities of a series at the same time; and

allow us to reopen a series to issue additional debt securities without the consent of the holders of the debt securities of such series.

Unless otherwise provided in the applicable prospectus supplement, the senior debt securities will be unsubordinated obligations and will rank equally with all of our other unsecured and unsubordinated indebtedness. Payments on the subordinated debt securities will be subordinated to the prior payment in full of all of our senior indebtedness, as described under Subordination and in the applicable prospectus supplement.

Each indenture provides that we may, but need not, designate more than one trustee under an indenture. Any trustee under an indenture may resign or be removed and a successor trustee may be appointed to act with respect to the series of debt securities administered by the resigning or removed trustee. If two or more persons are acting as trustee with respect to different series of debt securities, each trustee shall be a trustee of a trust under the applicable indenture separate and apart from the trust administered by any other trustee. Except as otherwise indicated in this prospectus, any action described in this prospectus to be taken by each trustee may be taken by each trustee with respect to, and only with respect to, the one or more series of debt securities for which it is trustee under the applicable indenture.

Table of Contents

The prospectus supplement for each offering will provide the following terms, where applicable:

the title of the debt securities and whether they are senior or subordinated;

the aggregate principal amount of the debt securities being offered, the aggregate principal amount of the debt securities outstanding as of the most recent practicable date and any limit on their aggregate principal amount, including the aggregate principal amount of debt securities authorized;

the price at which the debt securities will be issued, expressed as a percentage of the principal and, if other than the principal amount thereof, the portion of the principal amount thereof payable upon declaration of acceleration of the maturity thereof or, if applicable, the portion of the principal amount of such debt securities that is convertible into common stock or other securities of ours or the method by which any such portion shall be determined;

if convertible, the terms on which such debt securities are convertible, including the initial conversion price or rate and the conversion period and any applicable limitations on the ownership or transferability of common stock or other securities of ours received on conversion;

the date or dates, or the method for determining the date or dates, on which the principal of the debt securities will be payable;

the fixed or variable interest rate or rates of the debt securities, or the method by which the interest rate or rates is determined;

the date or dates, or the method for determining the date or dates, from which interest will accrue;

the dates on which interest will be payable;

the record dates for interest payment dates, or the method by which such dates will be determined;

the persons to whom interest will be payable;

the place or places where the principal of, and any premium or make-whole amount, and interest on, the debt securities will be payable;

where the debt securities may be surrendered for registration of transfer or conversion or exchange;

the times, prices and other terms and conditions upon which we may redeem the debt securities;

any obligation we have to redeem, repay or repurchase the debt securities pursuant to any sinking fund or analogous provision or at the option of holders of the debt securities, and the times and prices at which we must redeem, repay or repurchase the debt securities as a result of such obligation;

the currency or currencies in which the debt securities are denominated and payable if other than United States dollars, which may be a foreign currency or units of two or more foreign currencies or a composite currency or currencies and the terms and conditions relating thereto, and the manner of determining the equivalent of such foreign currency in United States dollars;

whether the principal of, and any premium or make-whole amount, or interest on, the debt securities of the series are to be payable, at our election or at the election of a holder, in a currency or currencies other than that in which the debt securities are denominated or stated to be payable, and other related terms and conditions;

whether the debt securities will be in registered form, bearer form, or both, and (i) if in registered form, the person to whom any interest shall be payable, if other than the person in whose name the security is registered at the close of business on the regular record date for such interest, or (ii) if in bearer form, the manner in which, or the person to whom, any interest on the security shall be payable if otherwise than upon presentation and surrender upon maturity;

Table of Contents

any restrictions applicable to the offer, sale or delivery of securities in bearer form and the terms upon which securities in bearer form of the series may be exchanged for securities in registered form of the series and vice versa, if permitted by applicable laws and regulations;

whether any debt securities of the series are to be issuable initially in temporary global form and whether any debt securities of the series are to be issuable in permanent global form with or without coupons and, if so, whether beneficial owners of interests in any such permanent global security may, or shall be required to, exchange their interests for other debt securities of the series, and the manner in which interest shall be paid;

the identity of the depository for securities in registered form, if such series are to be issuable as a global security;

the applicability, if any, of the defeasance and covenant defeasance provisions described in this prospectus or in the applicable indenture;

whether and under what circumstances we will pay any additional amounts on the debt securities in respect of any tax, assessment or governmental charge;

whether and under what circumstances the debt securities being offered are convertible into common stock or other securities of ours, as the case may be, including the conversion price or rate and the manner or calculation thereof;

the name of the applicable trustee and the nature of any material relationship with us or any of our affiliates, and the percentage of debt securities of the class necessary to require the trustee to take action; and

any other terms of such debt securities not inconsistent with the provisions of the applicable indenture.

We may issue debt securities that provide for less than the entire principal amount thereof to be payable upon declaration of acceleration of the maturity of the debt securities. We refer to any such debt securities throughout this prospectus as original issue discount securities. The applicable prospectus supplement will describe the United States federal income tax consequences and other relevant considerations applicable to original issue discount securities.

Except as described under Merger, Consolidation or Sale of Assets or as may be set forth in any prospectus supplement, the debt securities will not contain any provisions that (i) would limit our ability to incur indebtedness or (ii) would afford holders of debt securities protection in the event of (a) a highly leveraged or similar transaction involving us, or (b) a change of control or reorganization, restructuring, merger or similar transaction involving us that may adversely affect the holders of the debt securities. In the future, we may enter into transactions, such as the sale of all or substantially all of our assets or a merger or consolidation, that may have an adverse effect on our ability to service our indebtedness, including the debt securities, by, among other things, substantially reducing or eliminating our assets.

Our governing instruments do not define the term substantially all as it relates to the sale of assets. Additionally, Delaware cases interpreting the term substantially all rely upon the facts and circumstances of each particular case. Consequently, to determine whether a sale of substantially all of our assets has occurred, a holder of debt securities must review the financial and other information that we have disclosed to the public.

We will provide you with more information in the applicable prospectus supplement regarding any deletions, modifications, or additions to the events of default or covenants that are described below, including any addition of a covenant or other provision providing event risk or similar protection.

Table of Contents

Payment

Unless otherwise provided in the applicable prospectus supplement, the principal of, and any premium or make-whole amount, and interest on, any series of the debt securities will be payable by mailing a check to the address of the person entitled to it as it appears in the applicable register for the debt securities or by wire transfer of funds to that person at an account maintained within the United States.

All monies that we pay to a paying agent or a trustee for the payment of the principal of, and any premium or make-whole amount, or interest on, any debt security will be repaid to us if unclaimed at the end of two years after the obligation underlying payment becomes due and payable. After funds have been returned to us, the holder of the debt security may look only to us for payment, without payment of interest for the period which we hold the funds.

Denomination, Interest, Registration and Transfer

Unless otherwise provided in the applicable prospectus supplement, the debt securities of any series will be issuable in denominations of \$1,000 and integral multiples of \$1,000.

Interest on the debt securities shall be computed on the basis of a 360-day year composed of twelve 30-day months.

Subject to the limitations imposed upon debt securities that are evidenced by a computerized entry in the records of a depository company rather than by physical delivery of a note, a holder of debt securities of any series may:

exchange them for any authorized denomination of other debt securities of the same series and of a like aggregate principal amount and kind upon surrender of such debt securities at the corporate trust office of the applicable trustee or at the office of any transfer agent that we designate for such purpose; and

surrender them for registration of transfer or exchange at the corporate trust office of the applicable trustee or at the office of any transfer agent that we designate for such purpose.

Every debt security surrendered for registration of transfer or exchange must be accompanied by a written instrument of transfer satisfactory to the applicable trustee or transfer agent. Payment of a service charge will not be required for any registration of transfer or exchange of any debt securities, but we or the trustee may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith. We may at any time designate additional transfer agents for any series of debt securities.

Neither we, nor any trustee, will be required to:

issue, register the transfer of or exchange debt securities of any series during a period beginning at the opening of business 15 days before the day that the notice of redemption of any debt securities selected for redemption is mailed and ending at the close of business on the day of such mailing;

register the transfer of or exchange any debt security, or portion thereof, so selected for redemption, in whole or in part, except the unredeemed portion of any debt security being redeemed in part; and

issue, register the transfer of or exchange any debt security that has been surrendered for repayment at the option of the holder, except the portion, if any, of such debt security not to be so repaid.

Table of Contents

Merger, Consolidation or Sale of Assets

The indentures provide that we may, without the consent of the holders of any outstanding debt securities, (i) consolidate with, (ii) sell, lease or convey all or substantially all of our assets to, or (iii) merge with or into, any other entity provided that:

either we are the continuing entity, or the successor entity, if other than us, assumes the obligations (a) to pay the principal of, and any premium or make-whole amount, and interest on, all of the debt securities and (b) to duly perform and observe all of the covenants and conditions contained in the applicable indenture;

after giving effect to the transaction, there is no event of default under the applicable indentures and no event which, after notice or the lapse of time, or both, would become such an event of default, occurs and continues; and

an officers certificate and legal opinion covering such conditions are delivered to each applicable trustee.

Events of Default, Notice and Waiver

Unless the applicable prospectus supplement states otherwise, when we refer to events of default as defined in the indentures with respect to any series of debt securities, we mean:

default in the payment of any installment of interest on any debt security of such series continuing for 90 days unless such date has been extended or deferred;

default in the payment of principal of, or any premium or make-whole amount on, any debt security of such series when due and payable unless such date has been extended or deferred;

default in the performance or breach of any covenant or warranty in the debt securities or in the indenture by us continuing for 90 days after written notice described below;

bankruptcy, insolvency or reorganization, or court appointment of a receiver, liquidator or trustee of us; and

any other event of default provided with respect to a particular series of debt securities.

If an event of default occurs and is continuing with respect to debt securities of any series outstanding, then the applicable trustee or the holders of 25% or more in principal amount of the debt securities of that series will have the right to declare the principal amount of all the debt securities of that series to be due and payable. If the debt securities

of that series are original issue discount securities or indexed securities, then the applicable trustee or the holders of 25% or more in principal amount of the debt securities of that series will have the right to declare the portion of the principal amount as may be specified in the terms thereof to be due and payable. However, at any time after such a declaration of acceleration has been made, but before a judgment or decree for payment of the money due has been obtained by the applicable trustee, the holders of at least a majority in principal amount of outstanding debt securities of such series or of all debt securities then outstanding under the applicable indenture may rescind and annul such declaration and its consequences if:

we have deposited with the applicable trustee all required payments of the principal, any premium or make-whole amount, interest and, to the extent permitted by law, interest on overdue installment of interest, plus applicable fees, expenses, disbursements and advances of the applicable trustee; and

all events of default, other than the non-payment of accelerated principal, or a specified portion thereof, and any premium or make-whole amount, have been cured or waived.

Table of Contents

The indentures require each trustee to give notice to the holders of debt securities within the later of 90 days after an event of default and 30 days after the event of default is actually known to a responsible officer of such trustee, unless such default has been cured or waived. However, the trustee may withhold notice if specified persons of such trustee consider such withholding to be in the interest of the holders of debt securities.

The indentures provide that holders of debt securities of any series may not institute any proceedings, judicial or otherwise, with respect to such indenture or for any remedy under the indenture, unless the trustee fails to act for a period of 90 days after the trustee has received a written request to institute proceedings in respect of an event of default from the holders of 25% or more in principal amount of the outstanding debt securities of such series, as well as an offer of indemnity reasonably satisfactory to the trustee. However, this provision will not prevent any holder of debt securities from instituting suit for the enforcement of payment of the principal of, and any premium or make-whole amount, and interest on, such debt securities at the respective due dates thereof.

The indentures provide that, subject to provisions in each indenture relating to its duties in the case of a default, a trustee has no obligation to exercise any of its rights or powers at the request or direction of any holders of any series of debt securities then outstanding under the indenture, unless the holders have offered to the trustee reasonable security or indemnity. The holders of at least a majority in principal amount of the outstanding debt securities of any series or of all debt securities then outstanding under an indenture shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the applicable trustee, or of exercising any trust or power conferred upon such trustee. However, a trustee may refuse to follow any direction which:

is in conflict with any law or the applicable indenture;

may involve the trustee in personal liability; or

may be unduly prejudicial to the holders of debt securities of the series not joining the proceeding.

Within 120 days after the close of each fiscal year, we will be required to deliver to each trustee a certificate, signed by one of our several specified officers, stating whether or not that officer has knowledge of any default under the applicable indenture. If the officer has knowledge of any default, the notice must specify the nature and status of the default.

Modification of the Indentures

The indentures provide that modifications and amendments may be made only with the consent of the affected holders of a majority in principal amount of all outstanding debt securities issued under that indenture:

We and our respective trustee may make modifications and amendments of an indenture without the consent of any holder of debt securities for any of the following purposes:

to evidence the succession of another person to us as obligor under such indenture;

to provide for uncertificated debt securities in addition to or in place of certificated debt securities;

to add to our covenants for the benefit of the holders of all or any series of debt securities or to surrender any right or power conferred upon us in such indenture;

to add events of default for the benefit of the holders of all or any series of debt securities;

to add to, delete from, or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication, and delivery of debt securities;

to make any change that does not adversely affect the rights of any securityholder in any material respect;

to establish the form or terms of debt securities of any series;

Table of Contents

to provide for the acceptance of appointment by a successor trustee or facilitate the administration of the trusts under an indenture by more than one trustee; or

to cure any ambiguity, defect or inconsistency in an indenture, provided that such action shall not adversely affect the interests of holders of debt securities of any series issued under such indenture.

Voting

The indentures provide that in determining whether the holders of the requisite principal amount of outstanding debt securities of a series have given any request, demand, authorization, direction, notice, consent or waiver under the indentures or whether a quorum is present at a meeting of holders of debt securities, the principal amount of an original issue discount security that shall be deemed to be outstanding shall be the amount of the principal thereof that would be due and payable as of the date of such determination upon declaration of acceleration of the maturity thereof.

Subordination

Unless otherwise provided in the applicable prospectus supplement, subordinated debt securities will be subject to the following subordination provisions.

Upon any distribution to our creditors in a liquidation, dissolution or reorganization, the payment of the principal of and interest on any subordinated debt securities will be subordinated to the extent provided in the applicable indenture in right of payment to the prior payment in full of all senior debt. However, our obligation to make payments of the principal of and interest on such subordinated debt securities otherwise will not be affected. No payment of principal or interest will be permitted to be made on subordinated debt securities at any time if a default on senior debt exists that permits the holders of such senior debt to accelerate its maturity and the default is the subject of judicial proceedings or we receive notice of the default. After all senior debt is paid in full and until the subordinated debt securities are paid in full, holders of subordinated debt securities will be subrogated to the rights of holders of senior debt to the extent that distributions otherwise payable to holders of subordinated debt securities have been applied to the payment of senior debt. The subordinated indenture will not restrict the amount of senior debt or other indebtedness of ours. As a result of these subordination provisions, in the event of a distribution of assets upon insolvency, holders of subordinated debt securities may recover less, ratably, than our general creditors.

No restrictions will be included in any indenture relating to subordinated debt securities upon the creation of additional senior debt.

If this prospectus is being delivered in connection with the offering of a series of subordinated debt securities, the accompanying prospectus supplement or the information incorporated in this prospectus by reference will set forth the approximate amount of senior debt outstanding as of the end of our most recent fiscal quarter.

Discharge, Defeasance and Covenant Defeasance

Unless otherwise provided in the applicable prospectus supplement, the indentures allow us to discharge our obligations to holders of any series of debt securities issued under any indenture when:

either (i) all securities of such series have already been delivered to the applicable trustee for cancellation; or (ii) all securities of such series have not already been delivered to the applicable trustee for cancellation but (a) have become due and payable, (b) will become due and payable within one year, or (c) if redeemable at our option, are to be redeemed within one year, and we have irrevocably deposited with the applicable trustee, in trust, funds in such currency or currencies, currency unit or units or composite currency or currencies in which such debt securities are payable, an amount sufficient to pay the entire indebtedness on such debt securities

Table of Contents

in respect of principal and any premium or make-whole amount, and interest to the date of such deposit if such debt securities have become due and payable or, if they have not, to the stated maturity or redemption date;

we have paid or caused to be paid all other sums payable; and

an officers certificate and an opinion of counsel stating the conditions to discharging the debt securities have been satisfied has been delivered to the trustee.

Unless otherwise provided in the applicable prospectus supplement, the indentures provide that, upon our irrevocable deposit with the applicable trustee, in trust, of an amount, in such currency or currencies, currency unit or units or composite currency or currencies in which such debt securities are payable at stated maturity, or government obligations, or both, applicable to such debt securities, which through the scheduled payment of principal and interest in accordance with their terms will provide money in an amount sufficient to pay the principal of, and any premium or make-whole amount, and interest on, such debt securities, and any mandatory sinking fund or analogous payments thereon, on the scheduled due dates therefor, the issuing company shall be released from its obligations with respect to such debt securities under the applicable indenture or, if provided in the applicable prospectus supplement, its obligations with respect to any other covenant, and any omission to comply with such obligations shall not constitute an event of default with respect to such debt securities.

Notwithstanding the above, we may not elect to defease and be discharged from the obligation to pay any additional amounts upon the occurrence of particular events of tax, assessment or governmental charge with respect to payments on such debt securities and the obligations to register the transfer or exchange of such debt securities, to replace temporary or mutilated, destroyed, lost or stolen debt securities, to maintain an office or agency in respect of such debt securities, or to hold monies for payment in trust.

The applicable prospectus supplement may further describe the provisions, if any, permitting such defeasance or covenant defeasance, including any modifications to the provisions described above, with respect to the debt securities of or within a particular series.

Conversion Rights

The terms and conditions, if any, upon which the debt securities are convertible into common stock or other securities of ours will be set forth in the applicable prospectus supplement. The terms will include whether the debt securities are convertible into shares of common stock or other securities of ours, the conversion price, or manner of calculation thereof, the conversion period, provisions as to whether conversion will be at the issuing company's option or the option of the holders, the events requiring an adjustment of the conversion price and provisions affecting conversion in the event of the redemption of the debt securities and any restrictions on conversion.

No Recourse

No recourse shall be had under any obligation, covenant or agreement of ours in the senior indenture or any supplemental indenture, or in any of the debt securities or because of the creation of any indebtedness represented thereby, against any of our incorporators, stockholders, officers or directors, past, present or future, or of any predecessor or successor entity thereof under any law, statute or constitutional provision or by the enforcement of any assessment or by any legal or equitable proceeding or otherwise. Each holder, by accepting the debt securities, waives and releases all such liability.

Governing Law

The indentures and the debt securities will be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act is applicable.

Table of Contents

DESCRIPTION OF WARRANTS

We may issue warrants to purchase debt securities, common stock, or preferred stock. We may offer warrants separately or together with one or more additional warrants, debt securities, common stock, or preferred stock, or any combination of those securities in the form of units, as described in the applicable prospectus supplement. If we issue warrants as part of a unit, the accompanying prospectus supplement will specify whether those warrants may be separated from the other securities in the unit prior to the expiration date of the warrants. The applicable prospectus supplement will also describe the following terms of any warrants:

the specific designation and aggregate number of, and the offering price at which we will issue, the warrants;

the currency or currency units in which the offering price, if any, and the exercise price are payable;

the date on which the right to exercise the warrants will begin and the date on which that right will expire or, if you may not continuously exercise the warrants throughout that period, the specific date or dates on which you may exercise the warrants;

whether the warrants are to be sold separately or with other securities as parts of units;

whether the warrants will be issued in definitive or global form or in any combination of these forms, although, in any case, the form of a warrant included in a unit will correspond to the form of the unit and of any security included in that unit;

any applicable material U.S. federal income tax consequences;

the identity of the warrant agent for the warrants and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;

the proposed listing, if any, of the warrants or any securities purchasable upon exercise of the warrants on any securities exchange;

the designation and terms of any equity securities purchasable upon exercise of the warrants;

the designation, aggregate principal amount, currency and terms of any debt securities that may be purchased upon exercise of the warrants;

if applicable, the designation and terms of the debt securities, common stock, or preferred stock with which the warrants are issued and, the number of warrants issued with each security;

if applicable, the date from and after which any warrants issued as part of a unit and the related debt securities, common stock, or preferred stock will be separately transferable;

the number of shares of common stock or preferred stock purchasable upon exercise of a warrant and the price at which those shares may be purchased;

if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;

information with respect to book-entry procedures, if any;

the antidilution provisions of, and other provisions for changes to or adjustment in the exercise price of, the warrants, if any;

any redemption or call provisions; and

any additional terms of the warrants, including terms, procedures and limitations relating to the exchange or exercise of the warrants.

Specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement of which this prospectus forms a part.

Table of Contents

DESCRIPTION OF UNITS

The following description, together with the additional information that we include in any applicable prospectus supplements and in any related free writing prospectuses, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms we have summarized below will apply generally to any units that we may offer under this prospectus, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of unit agreement that describes the terms of the series of units we are offering, and any supplemental agreements, before the issuance of the related series of units. The following summaries of material terms and provisions of the units are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement and any supplemental agreements applicable to a particular series of units. We urge you to read the applicable prospectus supplements related to the particular series of units that we may offer under this prospectus, as well as any related free writing prospectuses and the complete unit agreement and any supplemental agreements that contain the terms of the units.

General

We may issue units comprised of shares of common stock, preferred stock, debt securities, warrants and units in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of units, including:

designation and terms of the units, including whether and under what circumstances the securities comprising the units may be held or transferred separately;

any provisions of the governing unit agreement that differ from those described below; and

any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under Description of Capital Stock, Description of Debt Securities and Description of Warrants, will apply to each unit and to the common stock, preferred stock, debt securities and warrants included in each unit, respectively.

Issuance in Series

We may issue units in such amounts and in such numerous distinct series as we determine.

Enforceability of Rights by Holders of Units

Each unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

Title

We, the unit agent and any of its agents, may treat the registered holder of any unit certificate as an absolute owner of the units evidenced by that certificate for any purpose and as the person entitled to exercise the rights attaching to the units so requested, despite any notice to the contrary.

Table of Contents**FORMS OF SECURITIES**

Each debt security, warrant and unit will be represented either by a certificate issued in definitive form to a particular investor or by one or more global securities representing the entire issuance of securities. Unless otherwise provided in the applicable prospectus supplement, certificated securities in definitive form and global securities will be issued in registered form. Definitive securities name you or your nominee as the owner of the security, and in order to transfer or exchange these securities or to receive payments other than interest or other interim payments, you or your nominee must physically deliver the securities to the trustee, registrar, paying agent or other agent, as applicable. Global securities name a depository or its nominee as the owner of the debt securities, warrants or units represented by these global securities. The depository maintains a computerized system that will reflect each investor's beneficial ownership of the securities through an account maintained by the investor with its broker/dealer, bank, trust company or other representative, as we explain more fully below.

Registered Global Securities

We may issue the registered debt securities, warrants and units in the form of one or more fully registered global securities that will be deposited with a depository or its nominee identified in the applicable prospectus supplement and registered in the name of that depository or nominee. In those cases, one or more registered global securities will be issued in a denomination or aggregate denominations equal to the portion of the aggregate principal or face amount of the securities to be represented by registered global securities. Unless and until it is exchanged in whole for securities in definitive registered form, a registered global security may not be transferred except as a whole by and among the depository for the registered global security, the nominees of the depository or any successors of the depository or those nominees.

If not described below, any specific terms of the depository arrangement with respect to any securities to be represented by a registered global security will be described in the prospectus supplement relating to those securities. We anticipate that the following provisions will apply to all depository arrangements.

Ownership of beneficial interests in a registered global security will be limited to persons, called participants, that have accounts with the depository or persons that may hold interests through participants. Upon the issuance of a registered global security, the depository will credit, on its book-entry registration and transfer system, the participants accounts with the respective principal or face amounts of the securities beneficially owned by the participants. Any dealers, underwriters or agents participating in the distribution of the securities will designate the accounts to be credited. Ownership of beneficial interests in a registered global security will be shown on, and the transfer of ownership interests will be effected only through, records maintained by the depository, with respect to interests of participants, and on the records of participants, with respect to interests of persons holding through participants. The laws of some states may require that some purchasers of securities take physical delivery of these securities in definitive form. These laws may impair your ability to own, transfer or pledge beneficial interests in registered global securities.

So long as the depository, or its nominee, is the registered owner of a registered global security, that depository or its nominee, as the case may be, will be considered the sole owner or holder of the securities represented by the registered global security for all purposes under the applicable indenture, warrant agreement or unit agreement. Except as described below, owners of beneficial interests in a registered global security will not be entitled to have the securities represented by the registered global security registered in their names, will not receive or be entitled to receive physical delivery of the securities in definitive form and will not be considered the owners or holders of the securities under the applicable indenture, warrant agreement or unit agreement. Accordingly, each person owning a beneficial interest in a registered global security must rely on the procedures of the depository for that registered global security

and, if that person is not a participant, on the procedures of the participant through which the person owns its interest, to exercise any rights of a holder under the applicable indenture, warrant agreement or unit agreement. We understand that under existing industry practices, if we request any action of holders or if an owner of a beneficial interest in a registered global security

Table of Contents

desires to give or take any action that a holder is entitled to give or take under the applicable indenture, warrant agreement or unit agreement, the depository for the registered global security would authorize the participants holding the relevant beneficial interests to give or take that action, and the participants would authorize beneficial owners owning through them to give or take that action or would otherwise act upon the instructions of beneficial owners holding through them.

Principal, premium, if any, and interest payments on debt securities, and any payments to holders with respect to warrants, or units, represented by a registered global security registered in the name of a depository or its nominee will be made to the depository or its nominee, as the case may be, as the registered owner of the registered global security. None of us, the trustees, the warrant agents, the unit agents or any other agent of ours, agent of the trustees or agent of the warrant agents or unit agents will have any responsibility or liability for any aspect of the records relating to payments made on account of beneficial ownership interests in the registered global security or for maintaining, supervising or reviewing any records relating to those beneficial ownership interests.

We expect that the depository for any of the securities represented by a registered global security, upon receipt of any payment to holders of principal, premium, interest or other distribution of underlying securities or other property on that registered global security, will immediately credit participants' accounts in amounts proportionate to their respective beneficial interests in that registered global security as shown on the records of the depository. We also expect that payments by participants to owners of beneficial interests in a registered global security held through participants will be governed by standing customer instructions and customary practices, as is now the case with the securities held for the accounts of customers or registered in street name, and will be the responsibility of those participants.

If the depository for any of the securities represented by a registered global security is at any time unwilling or unable to continue as depository or ceases to be a clearing agency registered under the Exchange Act, and a successor depository registered as a clearing agency under the Exchange Act is not appointed by us within 90 days, we will issue securities in definitive form in exchange for the registered global security that had been held by the depository. Any securities issued in definitive form in exchange for a registered global security will be registered in the name or names that the depository gives to the relevant trustee, warrant agent, unit agent or other relevant agent of ours or theirs. It is expected that the depository's instructions will be based upon directions received by the depository from participants with respect to ownership of beneficial interests in the registered global security that had been held by the depository.

Table of Contents

USE OF PROCEEDS

Except as described in any prospectus supplement or in any related free writing prospectus that we may authorize to be provided to you, the net proceeds received by us from our sale of the securities described in this prospectus will be added to our general funds and will be used for our general corporate purposes. From time to time, we may engage in additional public or private financings of a character and amount which we may deem appropriate.

Table of Contents

PLAN OF DISTRIBUTION

We may sell securities through any one or more of the following methods from time to time:

to or through underwriters, brokers or dealers;

through agents;

directly to one or more other purchasers in negotiated sales or competitively bid transactions;

through a block trade in which the broker or dealer engaged to handle the block trade will attempt to sell the securities as agent, but may position and resell a portion of the block as principal to facilitate the transaction; or

through a combination of any of the above methods of sale.

We may directly solicit offers to purchase securities, or agents may be designated to solicit such offers. We will, in the prospectus supplement relating to such offering, name any agent that could be viewed as an underwriter under the Securities Act and describe any commissions that we must pay. Any such agent will be acting on a best efforts basis for the period of its appointment or, if indicated in the applicable prospectus supplement, on a firm commitment basis. This prospectus may be used in connection with any offering of our securities through any of these methods or other methods described in the applicable prospectus supplement.

The distribution of the securities may be effected from time to time in one or more transactions:

at a fixed price, or prices, which may be changed from time to time;

at market prices prevailing at the time of sale;

at prices related to such prevailing market prices; or

at negotiated prices.

Each prospectus supplement will describe the method of distribution of the securities and any applicable restrictions.

The prospectus supplement with respect to the securities of a particular series will describe the terms of the offering of the securities, including the following:

the name of the agent or any underwriters;

the public offering or purchase price;

any discounts and commissions to be allowed or paid to the agent or underwriters;

all other items constituting underwriting compensation;

any discounts and commissions to be allowed or paid to dealers; and

any exchanges on which the securities will be listed.

If any underwriters or agents are utilized in the sale of the securities in respect of which this prospectus is delivered, we will enter into an underwriting agreement or other agreement with them at the time of sale to them, and we will set forth in the prospectus supplement relating to such offering the names of the underwriters or agents and the terms of the related agreement with them.

If a dealer is utilized in the sale of the securities in respect of which the prospectus is delivered, we will sell such securities to the dealer, as principal. The dealer may then resell such securities to the public at varying prices to be determined by such dealer at the time of resale.

If we offer securities in a subscription rights offering to our existing security holders, we may enter into a standby underwriting agreement with dealers, acting as standby underwriters. We may pay the standby underwriters a commitment fee for the securities they commit to purchase on a standby basis. If we do not enter into a standby underwriting arrangement, we may retain a dealer-manager to manage a subscription rights offering for us.

Table of Contents

Agents, underwriters, dealers and other persons may be entitled under agreements which they may enter into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

If so indicated in the applicable prospectus supplement, we will authorize underwriters or other persons acting as our agents to solicit offers by certain institutions to purchase securities from us pursuant to delayed delivery contracts providing for payment and delivery on the date stated in the prospectus supplement. Each contract will be for an amount not less than, and the aggregate amount of securities sold pursuant to such contracts shall not be less nor more than, the respective amounts stated in the prospectus supplement. Institutions with whom the contracts, when authorized, may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and other institutions, but shall in all cases be subject to our approval. Delayed delivery contracts will not be subject to any conditions except that:

the purchase by an institution of the securities covered under that contract shall not at the time of delivery be prohibited under the laws of the jurisdiction to which that institution is subject; and

if the securities are also being sold to underwriters acting as principals for their own account, the underwriters shall have purchased such securities not sold for delayed delivery. The underwriters and other persons acting as our agents will not have any responsibility in respect of the validity or performance of delayed delivery contracts.

Certain agents, underwriters and dealers, and their associates and affiliates may be customers of, have borrowing relationships with, engage in other transactions with, or perform services, including investment banking services, for us or one or more of our respective affiliates in the ordinary course of business.

In order to facilitate the offering of the securities, any underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the securities or any other securities the prices of which may be used to determine payments on such securities. Specifically, any underwriters may overallocate in connection with the offering, creating a short position for their own accounts. In addition, to cover overallocations or to stabilize the price of the securities or of any such other securities, the underwriters may bid for, and purchase, the securities or any such other securities in the open market. Finally, in any offering of the securities through a syndicate of underwriters, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the securities in the offering if the syndicate repurchases previously distributed securities in transactions to cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the securities above independent market levels. Any such underwriters are not required to engage in these activities and may end any of these activities at any time.

Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. The applicable prospectus supplement may provide that the original issue date for your securities may be more than two scheduled business days after the trade date for your securities. Accordingly, in such a case, if you wish to trade securities on any date prior to the second business day before the original issue date for your securities, you will be required, by virtue of the fact that your securities initially are expected to settle in more than two scheduled business days after the trade date for your securities, to make alternative settlement arrangements to prevent a failed settlement.

The securities may be new issues of securities and may have no established trading market. The securities may or may not be listed on a national securities exchange. We can make no assurance as to the liquidity of or the existence of trading markets for any of the securities.

In compliance with the guidelines of the Financial Industry Regulatory Authority, or FINRA, the aggregate maximum discount, commission or agency fees or other items constituting underwriting compensation to be received by any FINRA member or independent broker-dealer will not exceed 8% of the proceeds from any offering pursuant to this prospectus and any applicable prospectus supplement.

Table of Contents

LEGAL MATTERS

The validity of the securities being offered by this prospectus will be passed upon by Goodwin Procter LLP, Boston, Massachusetts.

Table of Contents

EXPERTS

The consolidated financial statements of Repligen Corporation appearing in Repligen Corporation's Annual Report (Form 10-K) for the year ended December 31, 2018, and the effectiveness of Repligen Corporation's internal control over financial reporting as of December 31, 2018 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their reports thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

Table of Contents

\$175,000,000

Repligen Corporation

Common Stock

PROSPECTUS SUPPLEMENT

Joint Book-Running Managers

J.P. Morgan

Lead Manager

Stephens Inc.

Janney Montgomery Scott

, 2019