ChromaDex Corp.
Form 10-K
March 07, 2019

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

[X] ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.

For the fiscal year ended December 31, 2018
or

[ ] TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.
For the transition period from to

Commission file number 001-37752

CHROMADEX CORPORATION
(Exact name of Registrant as specified in its Charter)

Delaware	26-2940963
(State or other jurisdiction of incorporation)	(I.R.S. Employer Identification No.)
10900 Wilshire Blvd. Suite 650, Los Angeles, California	90024
(Address of Principal Executive Offices)	(Zip Code)

Registrant's telephone number, including area code (310) 388-6706

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Name of Each Exchange on Which Registered
Common Stock, $0.001 par value	The NASDAQ Capital Market

Securities registered pursuant to Section 12(g) of the Act: None.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes [ ] No [X]

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes [ ] No [X]

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes [X] No [ ]

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes [X] No [ ]

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. [ ]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of “accelerated filer,” “large accelerated filer,” and “smaller reporting company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer [ ] Accelerated filer [X] Non-accelerated filer [ ]
Smaller reporting company [X] Emerging growth company [ ]

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financing accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes [ ] No [X]

As of June 30, 2018, the last business day of the registrant’s most recently completed second fiscal quarter, the aggregate market value of the registrant’s common stock held by non-affiliates of the registrant was approximately $151.4 million, based on the closing price of the registrant’s common stock on the NASDAQ Capital Market on June 30, 2018.

Number of shares of common stock of the registrant outstanding as of February 28, 2019: 55,285,912.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant’s proxy statement (the “Proxy Statement”) to be filed with the Securities and Exchange Commission (“SEC” or the “Commission”) pursuant to Regulation 14A in connection with the registrant’s 2019 Annual Meeting of Stockholders, which will be filed subsequent to the date hereof, are incorporated by reference into Part III of this Form 10 K. Such Proxy Statement will be filed with the SEC not later than 120 days following the end of the registrant’s fiscal year ended December 31, 2018.

TABLE OF CONTENTS

PART I

CAUTIONARY NOTICE REGARDING FORWARD LOOKING STATEMENTS

This Annual Report on Form 10-K (the “Form 10-K”) contains “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended, which are subject to the safe harbor created by those sections.

We may, in some cases, use words such as “anticipate,” “believe,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “pot “predict,” “project,” “should,” “will,” “would” or the negative of these terms, and similar expressions that convey uncertainty c future events or outcomes to identify these forward-looking statements. Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking statements and are based upon our current expectations, beliefs, estimates and projections, and various assumptions, many of which, by their nature, are inherently uncertain and beyond our control. Such statements, include, but are not limited to, statements contained in this Form 10-K relating to our business, business strategy, products and services we may offer in the future, the outcome and impact of litigation, the timing and results of future regulatory filings, the timing and results of future clinical trials, our ability to collect from major customers, sales and marketing strategy and capital outlook. Forward-looking statements are based on our current expectations and assumptions regarding our business, the economy and other future conditions. Because forward looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. Our actual results may differ materially from those contemplated by the forward-looking statements. They are neither statement of historical fact nor guarantees of assurance of future performance. We caution you therefore against relying on any of these forward-looking statements. Important factors that could cause actual results to differ materially from those in the forward looking statements include, but are not limited to, a decline in general economic conditions nationally and internationally; decreased demand for our products and services; market acceptance of our products; the ability to protect our intellectual property rights; impact of any litigation or infringement actions brought against us; competition from other providers and products; risks in product development; inability to raise capital to fund continuing operations; changes in government regulation; the ability to complete customer transactions and capital raising transactions, and other factors (including the risks contained in Item 1A of this Form 10-K under the heading “Risk Factors”) relating to our industry, our operations and results of operations and any businesses that may be acquired by us. Should one or more of these risks or uncertainties materialize, or should the underlying assumptions prove incorrect, actual results may differ significantly from those anticipated, believed, estimated, expected, intended or planned.

Factors or events that could cause our actual results to differ may emerge from time to time, and it is not possible for us to predict all of them, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We cannot guarantee future results, levels of activity, performance or achievements. Except as required by applicable law, we undertake no obligation to and do not intend to update any of the forward-looking statements to conform these statements to actual results.

Item 1.
Business

Unless otherwise indicated or the context otherwise requires, references to the “Company”, “ChromaDex”, “we”, “us” and “ou
refer to ChromaDex Corporation and its consolidated subsidiaries.

Company Overview

ChromaDex is a science-based integrated nutraceutical company devoted to improving the way people age. ChromaDex scientists partner with leading universities and research institutions worldwide to discover, develop and create products to deliver the full potential of nicotinamide adenine dinucleotide ("NAD") and its impact on human health.

NAD is an essential coenzyme and a key regulator of cellular metabolism. Best known for its role in cellular adenosine triphosphate ("ATP") production, NAD is now thought to play an important role in healthy aging. Many cellular functions related to health and healthy aging are sensitive to levels of locally available NAD and this represents an active area of research in the field of NAD.

NAD levels are not constant, and in humans, NAD levels have been shown to decline by more than 50% from young adulthood to middle age. NAD continues to decline as humans grow older. There are other causes of reduced NAD levels such as over-nutrition, alcohol consumption and a number of disease states. NAD may also be increased, including through calorie restriction and exercise. Healthy aging, mitochondria and NAD continue to be areas of focus in the research community. In 2018, there were over 160 studies on NAD. The areas of study include Alzheimer’s disease, Parkinson’s disease, neuropathy and heart failure.

In 2013, ChromaDex commercialized NIAGEN® nicotinamide riboside ("NR"), a novel form of vitamin B3. Data from numerous animal studies, and confirmed in human clinical trials, show that NR is a highly efficient NAD precursor that significantly raises NAD levels. NIAGEN® is safe for human consumption with no adverse side effects. NIAGEN® has twice been successfully reviewed under FDA's new dietary ingredient (“NDI”) notification program, and has also been successfully notified to the FDA as generally recognized as safe (“GRAS”). Animal studies of NIAGEN® have demonstrated a variety of outcomes ranging from increased NAD levels, increased cellular metabolism and energy production to improvements in insulin sensitivity. NIAGEN® is the trade name for our proprietary ingredient NR, and is protected by patents to which we are the exclusive licensee.

ChromaDex is the world leader in the emerging NAD space. ChromaDex has approximately 170 partnerships with leading universities and research institutions around the world including the National Institutes of Health, Cornell, Dartmouth, Harvard, Massachusetts Institute of Technology, University of Cambridge and the Mayo Clinic. Other relationships are currently being developed.

Our scientific advisory board is led by Chairman Dr. Roger Kornberg, Nobel Laureate Stanford Professor, Dr. Charles Brenner, one of the world’s recognized experts in NAD and inventor of nicotinamide riboside, Dr. Rudi Tanzi, the co-chair of the department of neurology at Harvard Medical School and one of the world’s leading experts in food and nutrition, Sir John Walker, Nobel Laureate and Emeritus Director, MRC Mitochondrial Biology Unit in the University of Cambridge, England, Dr. Bruce German, Chairman of food, nutrition and health at the University of California, Davis, and Dr. Robert Beudeker, Vice President of Innovation, who leads the innovation program for human nutrition and health at DSM.

STRATEGIC SHIFT TO GLOBAL CONSUMER PRODUCT COMPANY

The acquisition in March 2017 of Healthspan Research LLC, a company that sold our TRU NIAGEN® branded product direct to consumers, marked our strategic shift from an ingredient and testing company to a global, science-based integrated nutraceutical company. ChromaDex made the strategic decision to commercialize TRU NIAGEN® as a consumer brand for the product containing NIAGEN® ingredient, launching in 2017.

In connection with our strategic decision to grow our global consumer brand, we have reduced the number of NIAGEN® resellers to just a few. As expected, our ingredients segment net sales decreased 23% in 2018, from $11.1 million in 2017 to $8.6 million. However, our net sales of TRU NIAGEN® increased by $13.0 million, from $5.5 million in 2017 to $18.5 million in 2018, to more than offset the decrease in net sales of our ingredients segment.

We believe the global market size for TRU NIAGEN® is substantial. According to Orbis Research, Global Anti-Aging Market Research Report and Forecast 2017-2021, June 19, 2017, over $250 billion was spent on the business of youth worldwide in 2016 on looking, acting and feeling younger, which included skin care, cosmetic surgery, hair restoration, fitness, vitamins and supplements. According to the same report from Orbis Research, the worldwide anti-aging market is expected to grow at a compounded average growth rate ("CAGR") of 5.8% through 2021 to about $330 billion.

We began the international expansion of our TRU NIAGEN® brand with the launch in Hong Kong and Macau with our strategic partner, A.S. Watson Group, in 2017, followed by the launch in Singapore in the first quarter of 2018. In the third quarter of 2018, we launched TRU NIAGEN® in New Zealand with retail partner Matakana Superfoods. In the fourth quarter of 2018, we launched TRU NIAGEN® in Canada by making it available at www.truniagen.ca and to healthcare practitioners at Fullscript Canada after receiving regulatory approval for sale from Health Canada. We will continue to focus on obtaining additional regulatory approvals required to expand our marketing and distribution of our TRU NIAGEN® brand in new strategic international markets.

INGREDIENTS AND ANALYTICAL REFERENCE STANDARDS AND SERVICES BUSINESS SEGMENTS

Through our ingredients business segment, we will continue to sell NIAGEN® in ingredient form to our strategic partners, including Nestec Ltd. (“Nestlé”), a global leader pioneering quality science-based nutritional health solutions. In the fourth quarter of 2018, we entered into a supply agreement with Nestlé, pursuant to which Nestlé will be our exclusive customer for NIAGEN® for human use in the (i) medical nutritional and (ii) functional food and beverage categories in certain territories. As consideration for the rights granted to Nestlé, we received an upfront fee of $4 million. Following the launch of the products in certain territories, Nestlé will additionally pay us a one-time fee for a potential total aggregate payment of $6 million.

We are a leading provider of research and quality-control products and services to the natural products industry. Through our analytical reference standards and services segment, customers worldwide in the dietary supplement, food and beverage, cosmetic and pharmaceutical industries use our products, which are small quantities of highly-characterized, research-grade, plant-based materials, to ensure the quality of their raw materials and finished products. We have conducted this analytical reference standards and services business since 1999.

Our analytical reference standards and services business segment provides us with the opportunity to become aware of the results from research and screening activities performed on thousands of potential natural product candidates through our relationships with various universities and research institutions. By selecting the most promising ingredients leveraged from this market-based screening model, which is grounded by primary research performed through leading universities and institutions, followed by selective investments in further research and development, new proprietary ingredients can be identified and brought to various markets with a much lower investment cost and an increased chance of success. Through our regulatory consulting operations, we also provide our clients in the food, supplement and pharmaceutical industries with effective scientific solutions to manage their potential health and regulatory risks.

For the fiscal years ended December 31, 2018 and December 30, 2017, our revenues were approximately $31.6 million and $21.2 million, respectively. The following table summarizes the Company’s total sales for each of the business segments in the last two years. Please refer to Item 8 Financial Statements and Supplementary Data of this

Annual Report on Form 10-K for additional financial information for each of the business segments.

Fiscal Years	Consumer Products Segment	Ingredients Segment	Analytical Reference Standards and Services Segment	Total
2018	$18.5 million	$8.6 million	$4.5 million	$31.6 million
2017	$5.5 million	$11.1 million	$4.6 million	$21.2 million

Company Background

On May 21, 2008, Cody Resources, Inc., a Nevada corporation and a public company, (“Cody”) entered into an Agreement and Plan of Merger (the “Merger Agreement”), by and among Cody, CDI Acquisition, Inc., a California corporation and wholly-owned subsidiary of Cody (“Acquisition Sub”), and ChromaDex, Inc. (the “Merger”). Subsequent to the signing of the Merger Agreement, Cody merged with and into a Delaware corporation. On June 20, 2008, Cody amended its articles of incorporation to change its name to ChromaDex Corporation. ChromaDex Corporation was traded on the Over the Counter market under the symbol "CDXC." On April 25, 2016, ChromaDex Corporation became listed on the NASDAQ Capital Market under the symbol "CDXC."

ChromaDex, Inc., a wholly owned subsidiary of ChromaDex Corporation, was originally formed as a California corporation on February 19, 2000.

On March 12, 2017, ChromaDex Corporation acquired Healthspan Research LLC, a consumer product company offering TRU NIAGEN® branded products. This marked the strategic shift to become a global, science-based integrated nutraceutical company. On September 5, 2017, the Company completed the sale of its operating assets that were used with the Company's quality verification program testing and analytical chemistry business for food and food related products to Covance Laboratories Inc.

Business Market

According to Orbis Research, Global Anti-Aging Market Research Report and Forecast 2017-2022, June 19, 2017, over $250 billion was spent on the business of youth worldwide in 2016 on looking, acting and feeling younger, which included skin care, cosmetic surgery, hair restoration, fitness, vitamins and supplements. According to the same report from Orbis Research, the worldwide anti-aging market is expected to grow at a CAGR of 5.8% through 2021 to about $330 billion. According to the data from Euromonitor International, the worldwide market for vitamins and dietary supplements was approximately $106 billion in 2018, and is expected to grow at a CAGR of 3.0% to about $123 billion in 2023.

Business Model

CONSUMER PRODUCTS SEGMENT

Our business model is to sell TRU NIAGEN® to consumers worldwide. As a world leader in the emerging NAD space and the science of aging, we will continue to seek to discover and enhance patented technology and evolve our TRU NIAGEN® products to improve health by safely raising NAD levels. The TRU NIAGEN® brand is built on scientific evidence, trust and the direct impact to our consumers of aging better. The best way to be trusted as a brand is to be trustworthy as a company.

We intend to expand to the worldwide NAD-related healthy aging market by entering into new international markets. We will continue to focus on obtaining additional regulatory approvals required to expand our marketing and distribution of our TRU NIAGEN® products in new international markets. We will utilize our proprietary ecommerce platforms, and the ecommerce and brick and mortar platforms of strategic regional and local partners. Our United States ("U.S.") based business will continue to support our global operations, including:

Corporate development and strategy

Research and development activities

Science

Global premium brand management and brand guidelines

Multi-platform global marketing campaigns and know-how

Build and evolve propriety ecommerce platform and data analytics

Global manufacturing and supply chain operations

We expect to continue to supply our international operations with finished products manufactured in the U.S, and to continue to provide all our marketing materials and know-how to our international strategic partners.

INGREDIENTS SEGMENT

We will continue to sell NIAGEN® in ingredient form to our strategic partners. In addition, we will also continue to identify, acquire and commercialize other innovative new proprietary ingredients and technologies. We have an experienced team that is capable of advancing products through development into commercialization with the required regulatory approval, safety, toxicology, clinical trials, supply chain management, manufacturing, and ultimately either directly selling the products or licensing to third parties.

ANALYTICAL REFERENCE STANDARDS AND SERVICES SEGMENT

We have taken advantage of both supply chain needs and regulatory requirements to build our analytical reference standards and services segment. We believe that we create value throughout the supply chain of the dietary supplements, functional foods and personal care markets. In addition, through regulatory consulting operations, we provide product regulatory approval and scientific advisory services to our clients in the food, supplement and pharmaceutical industries with effective solutions to manage potential health and regulatory risks.

We will capitalize on additional opportunities in product development and commercialization of various kinds of intellectual property that we have largely discovered and acquired through the sales process associated with this segment.

Overview of our Products and Services

Current products and services provided are as follows:

CONSUMER PRODUCTS

TRU NIAGEN® branded dietary supplements. We currently offer our NIAGEN® nicotinamide riboside through our TRU NIAGEN® finished bottles. We will continue to build our TRU NIAGEN® as a global brand and offer TRU NIAGEN® to consumers worldwide. We are conducting additional clinical trials to further validate the health benefits associated with NIAGEN® and TRU NIAGEN®.

INGREDIENTS

Nicotinamide riboside NIAGEN®. We will continue to develop and sell NIAGEN® in ingredient form to strategic partners.

Spirulina Extract Immulina™. IMMULINA™ is a spirulina extract and the predominant active compounds are Braun-type lipoproteins which are useful for improving human immune function. These lipoproteins are present at much greater levels than those found within commonly used immune enhancing botanicals such as Echinacea and ginseng.

ANALYTICAL REFERENCE STANDARDS AND SERVICES

Supply of reference standards and fine chemicals. We supply a wide range of products necessary to conduct quality control of raw materials and consumer products. Reference standards and fine chemicals are used for research and quality control in the dietary supplements, cosmetics, food and beverages, and pharmaceutical industries.

Consulting services. We provide a comprehensive range of consulting services in the areas of regulatory support, new ingredient or product development, risk management and litigation support. We provide and offer product regulatory approval and scientific advisory services.

Sales and Marketing Strategy

For our consumer products segment, we employ a variety of strategies to drive sales and consumer awareness of TRU NIAGEN®, including social media and internet advertising, managing websites, influencers, tradeshows, e-mail, paid search, distribution of research publications and press releases. We also have a customer care department that handles day-to-day communications with our end customers addressing any needs or concerns related to our TRU NIAGEN® product.

For our ingredients segment and analytical reference standards and services segment, our strategy is based on a direct, technically-oriented model. We recruit and hire sales and marketing staff with appropriate commercial and scientific backgrounds. Our regulatory consulting operations generate scientific and regulatory consulting revenue from an existing well-established list of Fortune 1000 customers and referrals.

-6-

USA and Canada:

For our consumer products segment, we are distributing our TRU NIAGEN® products direct to consumers through our propriety ecommerce platform TRUNIAGEN.com, TRUNIAGEN.ca, Amazon and other established internet marketplaces. We also have specialty retailers and direct healthcare practitioners who are authorized resellers of TRU NIAGEN® in the U.S. and Canada.

For our ingredients segment and analytical reference standards and services segment, we intend to continue to use a direct marketing approach in the U.S. and Canada to promote our products and services.

International:

For our consumer products segment, we will utilize strategic partners on a regional or local country basis to expand our distribution of TRU NIAGEN® products. Our strategic partnerships could include brick and mortar and/or ecommerce channels. We also are evaluating strategic joint ventures to rapidly expand our distribution in Asia. We began our international expansion of TRU NIAGEN® products with the successful launch in Hong Kong and Macau with our strategic partner, A.S. Watson Group in 2017, followed by the launch in Singapore in the first quarter of 2018. In the third quarter of 2018, we launched TRU NIAGEN® in New Zealand with retail partner Matakana Superfoods. In the fourth quarter of 2018, we launched TRU NIAGEN® in Canada by making it available at www.truniagen.ca and to healthcare practitioners at Fullscript Canada after receiving regulatory approval for sale from Health Canada. We will continue to focus on obtaining additional regulatory approvals required to expand our marketing and distribution of our TRU NIAGEN® brand in new strategic international markets.

For our ingredients segment, most of our customers are based currently in the U.S.

For our analytical reference standards and services segment, we use international distributors to market and sell to several foreign countries or markets. The use of distributors in some international markets has proven to be more effective than direct sales. For our regulatory consulting operations, we engage on consulting projects for customers all over the world, including Europe, South America, and Asia. Consulting revenues are generated from an existing well-established list of Fortune 1000 customers and referrals.

Government Regulation

Some of our operations are subject to regulation by various United States federal agencies and similar state and international agencies, including the Food and Drug Administration (“FDA”), the Federal Trade Commission (“FTC”), the Department of Commerce, the Department of Transportation, the Department of Agriculture and other state and international agencies. These regulators govern a wide variety of production activities, from design and development to labeling, manufacturing, handling, selling and distributing of products. From time to time, federal, state and international legislation is enacted that may have the effect of materially increasing the cost of doing business or limiting or expanding our permissible activities. We cannot predict whether or when potential legislation or regulations will be enacted, and, if enacted, the effect of such legislation, regulation, implementation, or any implemented regulations or supervisory policies would have on our financial condition or results of operations. In addition, the outcome of any litigation, investigations or enforcement actions initiated by state or federal authorities could result in changes to our operations being necessary and in increased compliance costs.

U.S. FDA Regulation

In the United States dietary supplements and food are subject to FDA regulations. For example, the FDA's final rule on Good Manufacturing Practices ("GMPs") for dietary supplements published in June 2007 requires companies to evaluate products for identity, strength, purity and composition. These regulations, in some cases, particularly for new ingredients, require a notification that must be submitted to the FDA along with evidence of safety. In addition, depending on the type of product, whether a dietary supplement, cosmetic, food, or pharmaceutical, the FDA, under the Food, Drug and Cosmetic Act (the "FDCA"), can regulate:

product testing;

ingredient testing;

documentation process, batch records, specifications;

product labeling;

product manufacturing and storage;

NDI status;

health claims, advertising and promotion; and

product sales and distribution.

The FDCA has been amended several times with respect to dietary supplements, most notably by the Dietary Supplement Health and Education Act of 1994 ("DSHEA"). DSHEA established a new framework for governing the composition and labeling of dietary supplements. Generally, under DSHEA, dietary ingredients that were marketed in the United States before October 15, 1994, may be used in dietary supplements without notifying the FDA. However, an NDI (a dietary ingredient that was not marketed in the United States before October 15, 1994) is subject to NDI notification that must be submitted to the FDA unless the ingredient has previously been "present in the food supply as an article used for food" without being "chemically altered." An NDI notification must provide the FDA with evidence of a "history of use or other evidence of safety" establishing that the use of the dietary ingredient "will reasonably be expected to be safe." An NDI notification must be submitted to the FDA at least 75 days before the initial marketing of the NDI. There can be no assurance that the FDA will accept the evidence of safety for any NDIs that we may want to commercialize, and the FDA's refusal to accept such evidence could prevent the marketing of such dietary ingredients. The FDA is in the process of developing guidance for the industry that will aim to clarify the FDA's interpretation of the NDI notification requirements, and this guidance may raise new and significant regulatory barriers for NDIs.

For any new ingredient developed by us to be used in conventional food or beverage products in the United States, the product either must be approved by the FDA as a food additive pursuant to a food additive petition ("FAP") or be

generally recognized as safe ("GRAS"). The FDA does not have to approve a company's determination that an ingredient is GRAS. However, a company can notify the FDA of its determination. There can be no assurance that the FDA will approve any FAP for any ingredient that we may want to commercialize, or agree with our determination that an ingredient is GRAS, either of which could prevent the marketing of such ingredient.

U.S. Advertising Regulations

In addition to FDA regulations, the FTC regulates the advertising of dietary supplements, foods, cosmetics, and over-the-counter ("OTC"), drugs. In recent years, the FTC has instituted numerous enforcement actions against dietary supplement companies for failure to adequately substantiate claims made in advertising or for the use of false or misleading advertising claims. These enforcement actions have often resulted in consent decrees and the payment of civil penalties, restitution, or both, by the companies involved. We may be subject to regulation under various state and local laws that include provisions governing, among other things, the formulation, manufacturing, packaging, labeling, advertising and distribution of dietary supplements, foods, cosmetics and OTC drugs.

In addition, The National Advertising Division of the Council of Better Business Bureaus reviews national advertising for truthfulness and accuracy. The National Advertising Division of the Council of Better Business Bureaus uses a form of alternative dispute resolution, working closely with in-house counsel, marketing executives, research and development departments and outside consultants to decide whether claims have been substantiated.

International Regulations

Our international sales for the consumer products segment and ingredients segment are subject to foreign government regulations, which vary substantially from country to country. The time required to obtain approval by a foreign country may be longer or shorter than that required for FDA approval, and the requirements may differ. We may be unable to obtain on a timely basis, if at all, any foreign government approvals necessary for the marketing of our products abroad.

Regulation in Europe is exercised primarily through the European Union, which regulates the combined market of each of its member states. Other countries, such as Switzerland, have voluntarily adopted laws and regulations that mirror those of the European Union with respect to dietary ingredients.

Major Customers

Major customers who accounted for more than 10% of the Company's total sales were as follows:

	Years Ended	
Major Customers	2018	2017
A.S. Watson Group - Related Party	*	19.4%
Thorne Research	*	10.2%
Life Extension	10.0%	*

* Represents less than 10%.

Generally, we do not depend upon a single customer, or a few customers, and the loss of any one or more would not have a material adverse effect on the Company. However, due to the volume of consumer products and ingredients we are selling in relation to the overall Company's sales, we do expect that at times one or more of our customers may account for more than 10% of the Company's sales.

Competitive Business Conditions

For our consumer products segment, we are in direct competition with Elysium Health who offers a similar product to our TRU NIAGEN®. There are also few resellers of NIAGEN® as consumer products that are our customers. We believe these resellers are focused on specific channels that we believe are complementary to our business.

For our ingredients segment, we face little direct competition as the ingredients we offer are backed by intellectual property exclusively licensed to us. We, however, face strong indirect competition from other ingredient suppliers who may supply alternative ingredients that may have similar characteristics to ingredients we offer. Below is a list of some of the competitors for our ingredients segment.

Ingredients Business Segment Competitors

Royal DSM (the Netherlands)

Glanbia plc (Ireland)

BASF (Germany)

Lonza Group Ltd (Switzerland)

Sabinsa Corporation (India/USA)

For the analytical reference standards and services segment, we face competition within the standardization and quality testing niche of the natural products market. Below is a current list of certain competitors. These competitors have already developed reference standards or services or are currently taking steps to develop botanical standards. Of the competitors listed, some currently sell fine chemicals, which, by default, are sometimes used as reference standards, and others are closely aligned with our market niche to reduce any barriers to entry if these companies wish to compete.

Analytical Reference Standards and Services Segment Competitors

Sigma-Aldrich (USA)

Phytolab (Germany)

US Pharmacopoeia (USA)

Extrasynthese (France)

For regulatory consulting operations there are numerous competitors, including some that are much larger companies with more resources. The success in winning and retaining clients is heavily dependent on the efforts and reputation of our consultants. We believe the barriers to entry in areas of our consulting expertise are low.

Patents, Trademarks, Licenses, Franchises, Concessions, Royalty Agreements or Labor Contracts, Including Duration

We currently protect our intellectual property through patents, trademarks, designs and copyrights on our products and services. Our business strategy is to use the intellectual property harnessed from our analytical reference standards and services segment as the basis for providing new proprietary ingredients to our customers. Our strategy is to develop these proprietary ingredients on our own as well as to license our intellectual property to companies who will commercialize it. We anticipate that the net result will be a long-term flow of intellectual property milestone and

royalty payments to us.

The following table sets forth our existing patents and those to which we have licensed rights:

Patent Number	Title	Filing Date	Issued Date	Expires	Licensor
6,852,342	Compounds for altering food intake in humans	3/26/2002	2/8/2005	2/12/2022	Co-owned by Avoca, Inc. and ChromaDex
7,205,284	Potent immunostimulants from microalgae	7/10/2001	4/17/2007	3/9/2022	Licensed from University of Mississippi
7,776,326	Methods and compositions for treating neuropathies	6/3/2005	8/17/2010	6/3/2025	Licensed from Washington University
7,846,452	Potent immunostimulatory extracts from microalgae	7/28/2005	10/7/2010	7/28/2025	Licensed from University of Mississippi
8,106,184	Nicotinyl Riboside Compositions and Methods of Use	11/17/2006	1/31/2012	11/17/2026	Licensed from Cornell University
8,114,626	Yeast strain and method for using the same to produce Nicotinamide Riboside	3/26/2009	2/14/2012	3/26/2029	Licensed from Dartmouth College
8,133,917	Pterostilbene as an agonist for the peroxisome proliferator-activated receptor alpha isoform	10/25/2010	3/13/2012	10/25/2030	Licensed from the University of Mississippi and U.S. Department of Agriculture
8,197,807	Nicotinamide Riboside Kinase compositions and Methods for using the same	11/20/2007	6/12/2012	11/20/2027	Licensed from Dartmouth College
8,227,510	Combine use of pterostilbene and quercetin to produce cancer treatment medicaments	7/19/2005	7/24/2012	7/19/2025	Licensed from Green Molecular S.L.
8,252,845	Pterostilbene as an agonist for the peroxisome proliferator-activated receptor alpha isoform	2/1/2012	8/28/2012	2/1/2032	Licensed from the University of Mississippi and U.S. Department of Agriculture

8,318,807	Pterostilbene Caffeine Co-Crystal Forms	7/30/2010	11/27/2012	7/30/2030	Licensed from Laurus Labs Private Limited
8,383,086	Nicotinamide Riboside Kinase compositions and Methods for using the same	4/12/2012	2/26/2013	4/12/2032	Licensed from Dartmouth College
8,399,712	Pterostilbene cocrystals	7/30/2010	3/19/2013	7/30/2020	Licensed from Laurus Labs Private Limited
8,524,782	Key intermediate for the preparation of Stilbenes, solid forms of Pterostilbene, and methods for making the same	6/1/2009	9/3/2013	6/1/2029	Licensed from Laurus Labs Private Limited
8,809,400	Method to Ameliorate Oxidative Stress and Improve Working Memory Via Pterostilbene Administration	6/10/2008	8/19/2014	6/10/2028	Licensed from the University of Mississippi and U.S. Department of Agriculture
8,841,350	Method for treating non-melanoma skin cancer by inducing UDP-Glucuronosyltransferase activity using pterostilbene	5/8/2012	9/22/2014	5/8/2032	Co-owned by ChromaDex and University of California
8,889,126	Methods and compositions for treating neuropathies	5/28/2010	11/18/2014	5/28/2030	Licensed from Washington University
9,000,147	Nicotyl riboside compositions and methods of use	1/17/2012	4/7/2015	1/17/2032	Licensed from Cornell University
9,028,887	Method improve spatial memory via pterostilbene administration	5/22/2014	5/12/2015	5/22/2034	Licensed from the University of Mississippi and U.S. Department of Agriculture
9,295,688	Methods and compositions for treating neuropathies	10/10/2014	3/29/2016	10/10/2034	Licensed from Washington University
9,321,797	Nicotyl riboside compositions and methods of use	11/17/2014	4/26/2016	11/17/2034	Licensed from Cornell University
9,439,875	Anxiolytic effect of pterostilbene	5/11/2011	9/13/2016	5/11/2031	Licensed from the University of Mississippi and U.S. Department of Agriculture
9,975,915	Nicotinamide riboside kinase compositions and methods for using the same	4/12/2012	2/26/2013	4/12/2032	Licensed from Dartmouth College

Manufacturing

We currently utilize third-party manufacturers to produce and supply dietary supplement, ingredients, products, and services. Following the receipt of products or product components from third-party manufacturers, we currently inspect products as needed. We expect to reserve the right to inspect and ensure conformance of each product and product component to our specifications. We will also consider manufacturing certain products or product components internally, if our capacity permits, when demand or quality requirements make it appropriate to do so.

We intend to work with manufacturing companies that can meet the standards imposed by the FDA, the International Organization for Standardization and the quality standards that we will require for our own internal policies and procedures. We expect to monitor and manage supplier performance through a corrective action program developed by us. We believe these manufacturing relationships can minimize our capital investment, help control costs, and allow us to compete with larger volume manufacturers of dietary supplements, phytochemicals and ingredients.

Sources and Availability of Raw Materials

For all three business segments, we believe that we have identified reliable sources and suppliers of ingredients, chemicals, phytochemicals and reference materials that will provide products in compliance with our guidelines.

Research and Development

We have completed the first human clinical trial on our proprietary ingredient NIAGEN® and the results demonstrated that a single dose of NIAGEN® resulted in statistically significant increases in the co-enzyme NAD+ in healthy human volunteers. In addition, no adverse events were observed. In 2015, NIAGEN® was recognized by the FDA as a “New Dietary Ingredient.” NIAGEN® was also “Generally Recognized as Safe” by an independent panel of expert toxicologists and in August 2016, the FDA issued a GRAS No Objection Letter.

In 2018, we completed a second human clinical trial on NR which evaluated the effect of repeated doses of NIAGEN® on NAD+ metabolite concentrations in blood, urine and muscle in healthy adults. This study evaluated the impacts of three dose levels of NIAGEN® compared to a placebo. One quarter of subjects received the low dose of NIAGEN® (100 mg), one quarter received the moderate dose of NIAGEN® (300 mg), one quarter received the higher dose of NIAGEN® (1,000 mg) and one quarter received the placebo. The results showed that NAD levels rose in response to the dose of NIAGEN® and the elevated blood NAD levels were sustained throughout the eight-week treatment period.

Through our research and development laboratory in Longmont, Colorado, we intend to manufacture at a process scale for products that we are planning to take to market as well as explore cost saving processes for existing products.

Research and development costs for the fiscal years ended December 31, 2018, and December 30, 2017, were approximately $5.5 million and $4.0 million, respectively.

Environmental Compliance

We will incur significant expense in complying with GMPs and safe handling and disposal of materials used in our research and manufacturing activities. We do not anticipate incurring additional material expense to comply with federal, state and local environmental laws and regulations.

Working Capital

The Company's working capital at the end of years 2018 and 2017 was approximately $3.1 million and $7.4 million, respectively. The Company measures working capital by adding trade receivables and inventories, and subtracting accounts payable. Most of the working capital is consumed by our consumer products segment and ingredients segment as the operations require a large amount of inventory to be on hand. As the consumer products segment and ingredients segment grow, more working capital will likely be needed to support the operations.

Backlog Orders

For our consumer products segment where we ship products internationally to a distributor, we may have a backlog from time to time as the production of TRU NIAGEN® finished bottles require up to three months lead time by our third-party contract manufacturers. As of December 31, 2018, we did not have any backlog orders from the distributor as all orders received have been shipped. For products that are directly shipped to consumers, we have minimal backlog orders as we carry inventory on hand to ship upon the receipt of order.

For our ingredients segment, we also have minimal backlog orders as we carry inventory on hand for most of the products we offer and we ship upon the receipt of customer's order.

For our analytical reference standards and services segment, we normally have a small backlog of orders for reference standards. These orders amount to approximately $25,000 or less. Because we list over 1,500 phytochemicals and 300 botanical reference materials in our catalog, we may not always have the items in stock at the time of customers' orders. These backlog orders are normally fulfilled within 2 to 3 months.

Facilities

For information on our facilities, see "Properties" in Item 2 of this Form 10-K.

Employees

As of December 31, 2018, ChromaDex (including Healthspan Research LLC and ChromaDex Analytics, Inc.) had approximately 100 employees, all of whom were full-time. We consider our relationships with our employees to be satisfactory. None of our employees is covered by a collective bargaining agreement.

Financial Information about Geographic Areas

Please refer to Item 8 Financial Statements and Supplementary Data of this Annual Report on Form 10-K for financial information about geographic areas.

Available Information

Our Internet website address is www.chromadex.com. Information found on, or accessible through, our website is not a part of, and is not incorporated into, this Annual Report on Form 10-K. We make available free of charge on our website our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practical after we file such material with, or furnish it to, the Securities and Exchange Commission. This information is also available in print to any shareholder who requests it, with any such requests addressed to ChromaDex Corporation, 10900 Wilshire Blvd. Ste 650, Los Angeles, CA 90024. Certain of these documents may also be obtained by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet website that contains reports, and other information regarding issuers that file electronically with the SEC at www.sec.gov. We also make available free of charge on our website our Code of Business Conduct and Ethics, and the Charters of our Audit Committee, Nominating and Corporate Governance Committee, and Compensation Committee of our Board of Directors.

Item 1A.
Risk Factors

Investing in our common stock involves a high degree of risk. Current investors and potential investors should consider carefully the risks and uncertainties described below together with all other information contained in this Form 10-K before making investment decisions with respect to our common stock. If any of the following risks occurs, our business, financial condition, results of operations and our future growth prospects would be materially and adversely affected. Under these circumstances, the trading price and value of our common stock could decline, resulting in a loss of all or part of your investment. The risks and uncertainties described in this Form 10-K are not the only ones facing our Company. Additional risks and uncertainties of which we are not presently aware, or that we currently consider immaterial, may also affect our business operations.

Risks Related to our Company and our Business

We have a history of operating losses, may need additional financing to meet our future long-term capital requirements and may be unable to raise sufficient capital on favorable terms or at all.

We have a history of losses and may continue to incur operating and net losses for the foreseeable future. We incurred net losses of approximately $33.3 million and $11.4 million for the years ended December 31, 2018 and December 30, 2017, respectively. As of December 31, 2018, our accumulated deficit was approximately $90 million. We have not achieved profitability on an annual basis. We may not be able to reach a level of revenue to continue to achieve and sustain profitability. If our revenues grow slower than anticipated, or if operating expenses exceed expectations, then we may not be able to achieve and sustain profitability in the near future or at all, which may depress our stock price.

As of December 31, 2018, our cash and cash equivalents totaled approximately $22.6 million. While we anticipate that our current cash, cash equivalents and cash to be generated from operations will be sufficient to meet our projected operating plans through at least the next twelve months, we may require additional funds, either through additional equity or debt financings or collaborative agreements or from other sources. We have no commitments to obtain such additional financing, and we may not be able to obtain any such additional financing on terms favorable to us, or at all. If adequate financing is not available, the Company will further delay, postpone or terminate product and service expansion and curtail certain selling, general and administrative operations. The inability to raise additional financing may have a material adverse effect on the future performance of the Company.

-15-

Our capital requirements will depend on many factors.

Our capital requirements will depend on many factors, including:

the revenues generated by sales of our products;

the costs associated with expanding our sales and marketing efforts, including efforts to hire independent agents and sales representatives and obtain required regulatory approvals and clearances;

the expenses we incur in developing and commercializing our products, including the cost of obtaining and maintaining regulatory approvals; and

unanticipated general and administrative expenses, including expenses involved with our ongoing litigation with Elysium.

Because of these factors, we may seek to raise additional capital within the next twelve months both to meet our projected operating plans after the next twelve months and to fund our longer term strategic objectives. Additional capital may come from public and private equity or debt offerings, borrowings under lines of credit or other sources. These additional funds may not be available on favorable terms, or at all. There can be no assurance we will be successful in raising these additional funds. Furthermore, if we issue equity or debt securities to raise additional funds, our existing stockholders may experience dilution and the new equity or debt securities we issue may have rights, preferences and privileges senior to those of our existing stockholders. In addition, if we raise additional funds through collaboration, licensing or other similar arrangements, it may be necessary to relinquish valuable rights to our products or proprietary technologies, or grant licenses on terms that are not favorable to us. If we cannot raise funds on acceptable terms, we may not be able to develop or enhance our products, obtain the required regulatory clearances or approvals, execute our business plan, take advantage of future opportunities, or respond to competitive pressures or unanticipated customer requirements. Any of these events could adversely affect our ability to achieve our development and commercialization goals, which could have a material and adverse effect on our business, results of operations and financial condition.

We are currently engaged in substantial and complex litigation with Elysium Health, Inc. and Elysium Health LLC ("Elysium"), the outcome of which could materially harm our business and financial results.

We are currently engaged in litigation with Elysium, a customer that represented 19% of our net sales for the year ended December 31, 2016. Elysium has made no purchases from us since August 9, 2016. The litigation includes multiple complaints and counterclaims by us and Elysium in venues in California and New York, as well as a patent infringement complaint filed by the Company and Trustees of Dartmouth College. For further details on this litigation, please refer to Part I, Item 3 of this Annual Report on Form 10-K.

The litigation is substantial and complex, and it has caused and could continue to cause us to incur significant costs, as well as distract our management over an extended period. The litigation may substantially disrupt our business and we cannot assure you that we will be able to resolve the litigation on terms favorable to us. If we are unsuccessful in resolving the litigation on favorable terms to us, we may be forced to pay compensatory and punitive damages and restitution for any royalty payments that we received from Elysium, which payments could materially harm our business, or be subject to other remedies, including injunctive relief. In addition, Elysium has not paid us

approximately $2.7 million for previous purchase orders. We may not collect the full amount owed to us by Elysium, and as a result, we may have to write off a large portion of that amount as uncollectible expense. We cannot predict the outcome of our litigation with Elysium, which could have any of the results described above or other results that could materially adversely affect our business.

Interruptions in our relationships or declines in our business with major customers could materially harm our business and financial results.

One of our customers accounted for approximately 10% of our sales during the year ended December 31, 2018. Any interruption in our relationship or decline in our business with this customer or other customers upon whom we become highly dependent could cause harm to our business. Factors that could influence our relationship with our customers upon whom we may become highly dependent include:

our ability to maintain our products at prices that are competitive with those of our competitors;

our ability to maintain quality levels for our products sufficient to meet the expectations of our customers;

our ability to produce, ship and deliver a sufficient quantity of our products in a timely manner to meet the needs of our customers;

our ability to continue to develop and launch new products that our customers feel meet their needs and requirements, with respect to cost, timeliness, features, performance and other factors;

our ability to provide timely, responsive and accurate customer support to our customers; and

the ability of our customers to effectively deliver, market and increase sales of their own products based on ours.

In an effort to promote and better market our consumer products, we have made a strategic decision to not ship NIAGEN® to certain ingredient segment customers, which could potentially materially adversely affect our overall sales.

By developing and selling TRU NIAGEN®, our own consumer standalone NIAGEN® supplement product, we are in direct competition with some of our current ingredients segment customers that use NIAGEN® in the products that are sold to consumers. In an effort to promote and better market our consumer product, we have made a strategic decision not to ship NIAGEN® to certain ingredients segment customers, which will have a negative effect on our ingredient segment sales. For example, sales for our ingredients segment for the year ended December 31, 2018 decreased 23% compared to the year ended December 30, 2017. Additionally, as our own consumer product becomes more prominent and widely adopted by consumers, the competition with our consumer product could potentially further harm the sales of our ingredients segment business, and our sales of NIAGEN® for our ingredients segment may further decrease. The sales of our consumer product may not outweigh the decrease in sales of our ingredients segment, which would lead to an overall decrease in our sales. Sales for our ingredients segment represented approximately 27% of the Company's revenue for 2018, and sales of NIAGEN® accounted for approximately 60% of our ingredient segment's total sales in 2018, or 16% of our overall revenue, so any harm to our NIAGEN® ingredient sales, if not compensated for by sales of our consumer product, may materially adversely affect our business.

Our future success largely depends on sales of our TRU NIAGEN® product.

In connection with our strategic shift from an ingredient and testing company to a consumer focused company, we expect to generate a significant percentage of our future revenue from sales of our TRU NIAGEN® product. As a result, the market acceptance of TRU NIAGEN® is critical to our continued success, and if we are unable to expand market acceptance of TRU NIAGEN®, our business, results of operations, financial condition, liquidity and growth prospects would be materially adversely affected.

Decline in the state of the global economy and financial market conditions could adversely affect our ability to conduct business and our results of operations.

Global economic and financial market conditions, including disruptions in the credit markets and the impact of the global economic deterioration may materially impact our customers and other parties with whom we do business. These conditions could negatively affect our future sales of our ingredient lines as many consumers consider the purchase of nutritional products discretionary. Decline in general economic and financial market conditions could materially adversely affect our financial condition and results of operations. Specifically, the impact of these volatile and negative conditions may include decreased demand for our products and services, a decrease in our ability to

accurately forecast future product trends and demand, and a negative impact on our ability to timely collect receivables from our customers. The foregoing economic conditions may lead to increased levels of bankruptcies, restructurings and liquidations for our customers, scaling back of research and development expenditures, delays in planned projects and shifts in business strategies for many of our customers. Such events could, in turn, adversely affect our business through loss of sales.

We may need to increase the size of our organization, and we can provide no assurance that we will successfully expand operations or manage growth effectively.

Our significant increase in the scope and the scale of our product launches, including the hiring of additional personnel, has resulted in significantly higher operating expenses. As a result, we anticipate that our operating expenses will continue to increase. Expansion of our operations may also cause a significant demand on our management, finances and other resources. Our ability to manage the anticipated future growth, should it occur, will depend upon a significant expansion of our accounting and other internal management systems and the implementation and subsequent improvement of a variety of systems, procedures and controls. There can be no assurance that significant problems in these areas will not occur. Any failure to expand these areas and implement and improve such systems, procedures and controls in an efficient manner at a pace consistent with our business could have a material adverse effect on our business, financial condition and results of operations. There can be no assurance that our attempts to expand our marketing, sales, manufacturing and customer support efforts will be successful or will result in additional sales or profitability in any future period. As a result of the expansion of our operations and the anticipated increase in our operating expenses, as well as the difficulty in forecasting revenue levels, we expect to continue to experience significant fluctuations in our results of operations.

Changes in our business strategy, including entering the consumer product market, or restructuring of our businesses may increase our costs or otherwise affect the profitability of our businesses.

As changes in our business environment occur we may adjust our business strategies to meet these changes or we may otherwise decide to restructure our operations or businesses or assets. In addition, external events including changing technology, changing consumer patterns and changes in macroeconomic conditions may impair the value of our assets. When these changes or events occur, we may incur costs to change our business strategy and may need to write down the value of assets. In any of these events, our costs may increase, we may have significant charges associated with the write-down of assets or returns on new investments may be lower than prior to the change in strategy or restructuring. For example, if we are not successful in developing our consumer product business, our sales may decrease and our costs may increase.

The success of our consumer product and ingredient business is linked to the size and growth rate of the vitamin, mineral and dietary supplement market and an adverse change in the size or growth rate of that market could have a material adverse effect on us.

An adverse change in the size or growth rate of the vitamin, mineral and dietary supplement market could have a material adverse effect on our business. Underlying market conditions are subject to change based on economic conditions, consumer preferences and other factors that are beyond our control, including media attention and scientific research, which may be positive or negative.

The future growth and profitability of our consumer product business will depend in large part upon the effectiveness and efficiency of our marketing efforts and our ability to select effective markets and media in which to market and advertise.

Our consumer products business success depends on our ability to attract and retain customers, which significantly depends on our marketing practices. Our future growth and profitability will depend in large part upon the effectiveness and efficiency of our marketing efforts, including our ability to:

- create greater awareness of our brand;
- identify the most effective and efficient levels of spending in each market, media and specific media vehicle;
- determine the appropriate creative messages and media mix for advertising, marketing and promotional expenditures;
- effectively manage marketing costs (including creative and media) to maintain acceptable customer acquisition costs;
- acquire cost-effective television advertising;
- select the most effective markets, media and specific media vehicles in which to market and advertise; and
- convert consumer inquiries into actual orders.

Unfavorable publicity or consumer perception of our products and any similar products distributed by other companies could have a material adverse effect on our business.

We believe the nutritional supplement market is highly dependent upon consumer perception regarding the safety, efficacy and quality of nutritional supplements generally, as well as of products distributed specifically by us. Consumer perception of our products can be significantly influenced by scientific research or findings, regulatory investigations, litigation, national media attention and other publicity regarding the consumption of nutritional supplements. We cannot assure you that future scientific research, findings, regulatory proceedings, litigation, media attention or other favorable research findings or publicity will be favorable to the nutritional supplement market or any product, or consistent with earlier publicity. Future research reports, findings, regulatory proceedings, litigation, media attention or other publicity that are perceived as less favorable than, or that question, such earlier research reports, findings or publicity could have a material adverse effect on the demand for our products and consequently on our business, results of operations, financial condition and cash flows.

Our dependence upon consumer perceptions means that adverse scientific research reports, findings, regulatory proceedings, litigation, media attention or other publicity, if accurate or with merit, could have a material adverse effect on the demand for our products, the availability and pricing of our ingredients, and our business, results of operations, financial condition and cash flows. Further, adverse public reports or other media attention regarding the safety, efficacy and quality of nutritional supplements in general, or our products specifically, or associating the consumption of nutritional supplements with illness, could have such a material adverse effect. Any such adverse public reports or other media attention could arise even if the adverse effects associated with such products resulted from consumers' failure to consume such products appropriately or as directed and the content of such public reports and other media attention may be beyond our control.

We may incur material product liability claims, which could increase our costs and adversely affect our reputation, revenues and operating income.

As a consumer product and ingredient supplier we market and manufacture products designed for human and animal consumption, we are subject to product liability claims if the use of our products is alleged to have resulted in injury. Our products consist of vitamins, minerals, herbs and other ingredients that are classified as food ingredients, dietary supplements, or natural health products, and, in most cases, are not necessarily subject to pre-market regulatory approval in the United States. Some of our products contain innovative ingredients that do not have long histories of

human consumption. Previously unknown adverse reactions resulting from human consumption of these ingredients could occur. In addition, the products we sell are produced by third-party manufacturers. As a marketer of products manufactured by third parties, we also may be liable for various product liability claims for products we do not manufacture. We may, in the future, be subject to various product liability claims, including, among others, that our products include inadequate instructions for use or inadequate warnings concerning possible side effects and interactions with other substances. A product liability claim against us could result in increased costs and could adversely affect our reputation with our customers, which, in turn, could have a materially adverse effect on our business, results of operations, financial condition and cash flows.

We acquire a significant amount of key ingredients for our products from foreign suppliers, and may be negatively affected by the risks associated with international trade and importation issues.

We acquire a significant amount of key ingredients for a number of our products from suppliers outside of the United States, particularly India and China. Accordingly, the acquisition of these ingredients is subject to the risks generally associated with importing raw materials, including, among other factors, delays in shipments, changes in economic and political conditions, quality assurance, nonconformity to specifications or laws and regulations, tariffs, trade disputes and foreign currency fluctuations. While we have a supplier certification program and audit and inspect our suppliers' facilities as necessary both in the United States and internationally, we cannot assure you that raw materials received from suppliers outside of the United States will conform to all specifications, laws and regulations. There have in the past been quality and safety issues in our industry with certain items imported from overseas. We may incur additional expenses and experience shipment delays due to preventative measures adopted by the Indian and U.S. governments, our suppliers and our company.

The insurance industry has become more selective in offering some types of coverage and we may not be able to obtain insurance coverage in the future.

The insurance industry has become more selective in offering some types of insurance, such as product liability, product recall, property and directors' and officers' liability insurance. Our current insurance program is consistent with both our past level of coverage and our risk management policies. However, we cannot assure you that we will be able to obtain comparable insurance coverage on favorable terms, or at all, in the future. Certain of our customers as well as prospective customers require that we maintain minimum levels of coverage for our products. Lack of coverage or coverage below these minimum required levels could cause these customers to materially change business terms or to cease doing business with us entirely.

If we experience product recalls, we may incur significant and unexpected costs, and our business reputation could be adversely affected.

We may be exposed to product recalls and adverse public relations if our products are alleged to be mislabeled or to cause injury or illness, or if we are alleged to have violated governmental regulations. A product recall could result in substantial and unexpected expenditures, which would reduce operating profit and cash flow. In addition, a product recall may require significant management attention. Product recalls may hurt the value of our brands and lead to decreased demand for our products. Product recalls also may lead to increased scrutiny by federal, state or international regulatory agencies of our operations and increased litigation and could have a material adverse effect on our business, results of operations, financial condition and cash flows.

We depend on key personnel, the loss of any of which could negatively affect our business.

We depend greatly on Frank L. Jaksch Jr., Robert N. Fried, Kevin M. Farr, Mark J. Friedman, Lisa Bratkovich and Matthew Roberts, who are our Executive Chairman of the Board, Chief Executive Officer, Chief Financial Officer, General Counsel, Chief Marketing Officer and Chief Scientific Officer, respectively. We also depend greatly on other key employees, including key scientific and marketing personnel. In general, only highly qualified and trained scientists have the necessary skills to develop our products and provide our services. Only marketing personnel with specific experience and knowledge in health care are able to effectively market our products. In addition, some of our manufacturing, quality control, safety and compliance, information technology, sales and e-commerce related positions are highly technical as well. We face intense competition for these professionals from our competitors, customers, marketing partners and other companies throughout the industries in which we compete. Our success will depend, in part, upon our ability to attract and retain additional skilled personnel, which will require substantial additional funds. There can be no assurance that we will be able to find and attract additional qualified employees or

retain any such personnel. Our inability to hire qualified personnel, the loss of services of our key personnel, or the loss of services of executive officers or key employees that may be hired in the future may have a material and adverse effect on our business.

Our operating results may fluctuate significantly as a result of a variety of factors, many of which are outside of our control.

We are subject to the following factors, among others, that may negatively affect our operating results:

the announcement or introduction of new products by our competitors;

our ability to upgrade and develop our systems and infrastructure to accommodate growth;

the decision by significant customers to reduce purchases;

disputes and litigation with competitors;

our ability to attract and retain key personnel in a timely and cost-effective manner;

technical difficulties;

the amount and timing of operating costs and capital expenditures relating to the expansion of our business, operations and infrastructure;

regulation by federal, state or local governments; and

general economic conditions as well as economic conditions specific to the healthcare industry.

As a result of our limited operating history and the nature of the markets in which we compete, it is extremely difficult for us to make accurate forecasts. We have based our current and future expense levels largely on our investment plans and estimates of future events although certain of our expense levels are, to a large extent, fixed. Assuming our products reach the market, we may be unable to adjust spending in a timely manner to compensate for any unexpected revenue shortfall. Accordingly, any significant shortfall in revenues relative to our planned expenditures would have an immediate adverse effect on our business, results of operations and financial condition. Further, as a strategic response to changes in the competitive environment, we may from time to time make certain pricing, service or marketing decisions that could have a material and adverse effect on our business, results of operations and financial condition. Due to the foregoing factors, our revenues and operating results are and will remain difficult to forecast.

We face significant competition, including changes in pricing.

The markets for our products and services are both competitive and price sensitive. Many of our competitors have significant financial, operations, sales and marketing resources and experience in research and development. Competitors could develop new technologies that compete with our products and services or even render our products obsolete. If a competitor develops superior technology or cost-effective alternatives to our products and services, our

business could be seriously harmed.

The markets for some of our products are also subject to specific competitive risks because these markets are highly price competitive. Our competitors have competed in the past by lowering prices on certain products. If they do so again, we may be forced to respond by lowering our prices. This would reduce sales revenues and increase losses. Failure to anticipate and respond to price competition may also impact sales and aggravate losses.

We believe that customers in our markets display a significant amount of loyalty to their supplier of a particular product. To the extent we are not the first to develop, offer and/or supply new products, customers may buy from our competitors or make materials themselves, causing our competitive position to suffer.

Many of our competitors are larger and have greater financial and other resources than we do.

Our products compete and will compete with other similar products produced by our competitors. These competitive products could be marketed by well-established, successful companies that possess greater financial, marketing, distributional, personnel and other resources than we possess. Using these resources, these companies can implement extensive advertising and promotional campaigns, both generally and in response to specific marketing efforts by competitors, and enter into new markets more rapidly to introduce new products. In certain instances, competitors with greater financial resources also may be able to enter a market in direct competition with us, offering attractive marketing tools to encourage the sale of products that compete with our products or present cost features that consumers may find attractive.

We may never develop any additional products to commercialize.

We have invested a substantial amount of our time and resources in developing various new products. Commercialization of these products will require additional development, clinical evaluation, regulatory approval, significant marketing efforts and substantial additional investment before they can provide us with any revenue. Despite our efforts, these products may not become commercially successful products for a number of reasons, including but not limited to:

we may not be able to obtain regulatory approvals for our products, or the approved indication may be narrower than we seek;

our products may not prove to be safe and effective in clinical trials;

we may experience delays in our development program;

any products that are approved may not be accepted in the marketplace;

we may not have adequate financial or other resources to complete the development or to commence the commercialization of our products or will not have adequate financial or other resources to achieve significant commercialization of our products;

we may not be able to manufacture any of our products in commercial quantities or at an acceptable cost;

rapid technological change may make our products obsolete;

we may be unable to effectively protect our intellectual property rights or we may become subject to claims that our activities have infringed the intellectual property rights of others; and

we may be unable to obtain or defend patent rights for our products.

We may not be able to partner with others for technological capabilities and new products and services.

Our ability to remain competitive may depend, in part, on our ability to continue to seek partners that can offer technological improvements and improve existing products and services that are offered to our customers. We are committed to attempting to keep pace with technological change, to stay abreast of technology changes and to look for partners that will develop new products and services for our customer base. We cannot assure prospective investors that we will be successful in finding partners or be able to continue to incorporate new developments in technology, to improve existing products and services, or to develop successful new products and services, nor can we be certain that newly developed products and services will perform satisfactorily or be widely accepted in the marketplace or that the costs involved in these efforts will not be substantial.

If we fail to maintain adequate quality standards for our products and services, our business may be adversely affected and our reputation harmed.

Dietary supplement, nutraceutical, food and beverage, functional food, analytical laboratories, pharmaceutical and cosmetic customers are often subject to rigorous quality standards to obtain and maintain regulatory approval of their products and the manufacturing processes that generate them. A failure to maintain, or, in some instances, upgrade our quality standards to meet our customers' needs, could cause damage to our reputation and potentially substantial sales losses.

Our ability to protect our intellectual property and proprietary technology through patents and other means is uncertain and may be inadequate, which would have a material and adverse effect on us.

Our success depends significantly on our ability to protect our proprietary rights to the technologies used in our products. We rely on patent protection, as well as a combination of copyright, trade secret and trademark laws and nondisclosure, confidentiality and other contractual restrictions to protect our proprietary technology, including our licensed technology. However, these legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep any competitive advantage. For example, our pending United States and foreign patent applications may not issue as patents in a form that will be advantageous to us or may issue and be subsequently successfully challenged by others and invalidated. In addition, our pending patent applications include claims to material aspects of our products and procedures that are not currently protected by issued patents. Both the patent application process and the process of managing patent disputes can be time consuming and expensive. Competitors may be able to design around our patents or develop products which provide outcomes which are comparable or even superior to ours. Steps that we have taken to protect our intellectual property and proprietary technology, including entering into confidentiality agreements and intellectual property assignment agreements with some of our officers, employees, consultants and advisors, may not provide us with meaningful protection for our trade secrets or other proprietary information in the event of unauthorized use or disclosure or other breaches of the agreements. Furthermore, the laws of foreign countries may not protect our intellectual property rights to the same extent as do the laws of the United States.

In the event a competitor infringes our licensed or pending patent or other intellectual property rights, enforcing those rights may be costly, uncertain, difficult and time consuming. Even if successful, litigation to enforce our intellectual property rights or to defend our patents against challenge could be expensive and time consuming and could divert our management's attention. We may not have sufficient resources to enforce our intellectual property rights or to defend our patents rights against a challenge. The failure to obtain patents and/or protect our intellectual property rights could have a material and adverse effect on our business, results of operations and financial condition.

Our patents and licenses may be subject to challenge on validity grounds, and our patent applications may be rejected.

We rely on our patents, patent applications, licenses and other intellectual property rights to give us a competitive advantage. Whether a patent is valid, or whether a patent application should be granted, is a complex matter of science and law, and therefore we cannot be certain that, if challenged, our patents, patent applications and/or other intellectual property rights would be upheld. If one or more of those patents, patent applications, licenses and other intellectual property rights are invalidated, rejected or found unenforceable, that could reduce or eliminate any competitive advantage we might otherwise have had.

We may become subject to claims of infringement or misappropriation of the intellectual property rights of others, which could prohibit us from developing our products, require us to obtain licenses from third parties or to develop non-infringing alternatives and subject us to substantial monetary damages.

Third parties could, in the future, assert infringement or misappropriation claims against us with respect to products we develop. Whether a product infringes a patent or misappropriates other intellectual property involves complex legal and factual issues, the determination of which is often uncertain. Therefore, we cannot be certain that we have not infringed the intellectual property rights of others. There may be third-party patents or patent applications with claims to materials, formulations, methods of manufacture or methods for use related to the use or manufacture of our products, and our potential competitors may assert that some aspect of our product infringes their patents. Because patent applications may take years to issue, there also may be applications now pending of which we are unaware that may later result in issued patents upon which our products could infringe. There also may be existing patents or pending patent applications of which we are unaware upon which our products may inadvertently infringe.

Any infringement or misappropriation claim could cause us to incur significant costs, place significant strain on our financial resources, divert management's attention from our business and harm our reputation. If the relevant patents in such claim were upheld as valid and enforceable and we were found to infringe them, we could be prohibited from manufacturing or selling any product that is found to infringe unless we could obtain licenses to use the technology covered by the patent or are able to design around the patent. We may be unable to obtain such a license on terms acceptable to us, if at all, and we may not be able to redesign our products to avoid infringement, which could materially impact our revenue. A court could also order us to pay compensatory damages for such infringement, plus prejudgment interest and could, in addition, treble the compensatory damages and award attorney fees. These damages could be substantial and could harm our reputation, business, financial condition and operating results. A court also could enter orders that temporarily, preliminarily or permanently enjoin us and our customers from making, using, or selling products, and could enter an order mandating that we undertake certain remedial activities. Depending on the nature of the relief ordered by the court, we could become liable for additional damages to third parties.

The prosecution and enforcement of patents licensed to us by third parties are not within our control. Without these technologies, our products may not be successful and our business would be harmed if the patents were infringed on or misappropriated without action by such third parties.

We have obtained licenses from third parties for patents and patent application rights related to the products we are developing, allowing us to use intellectual property rights owned by or licensed to these third parties. We do not control the maintenance, prosecution, enforcement or strategy for many of these patents or patent application rights and as such are dependent in part on the owners of the intellectual property rights to maintain their viability. If any third party licensor is unable to successfully maintain, prosecute or enforce the licensed patents and/or patent application rights related to our products, we may become subject to infringement or misappropriate claims or lose our competitive advantage. Without access to these technologies or suitable design-around or alternative technology options, our ability to conduct our business could be impaired significantly.

We may be subject to damages resulting from claims that we, our employees, or our independent contractors have wrongfully used or disclosed alleged trade secrets of others.

Some of our employees were previously employed at other dietary supplement, nutraceutical, food and beverage, functional food, analytical laboratories, pharmaceutical and cosmetic companies. We may also hire additional employees who are currently employed at other such companies, including our competitors. Additionally, consultants or other independent agents with which we may contract may be or have been in a contractual arrangement with one or more of our competitors. We may be subject to claims that these employees or independent contractors have used or disclosed such other party's trade secrets or other proprietary information. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to our management. If we fail to defend such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A loss of key personnel or their work product could hamper or prevent our ability to market existing or new products, which could severely harm our business.

Litigation may harm our business.

Substantial, complex or extended litigation could cause us to incur significant costs and distract our management. For example, lawsuits by employees, stockholders, collaborators, distributors, customers, competitors or others could be very costly and substantially disrupt our business. Disputes from time to time with such companies, organizations or individuals are not uncommon, and we cannot assure you that we will always be able to resolve such disputes or on terms favorable to us. As further described in Part I, Item 3 of this Annual Report on Form 10-K, we are currently involved in substantial and complex litigation with Elysium. Unexpected results could cause us to have financial exposure in these matters in excess of recorded reserves and insurance coverage, requiring us to provide additional

reserves to address these liabilities, therefore impacting profits.

Our sales and results of operations for our analytical reference standards and services segment depend on our customers' research and development efforts and their ability to obtain funding for these efforts.

Our analytical reference standards and services segment customers include researchers at pharmaceutical and biotechnology companies, chemical and related companies, academic institutions, government laboratories and private foundations. Fluctuations in the research and development budgets of these researchers and their organizations could have a significant effect on the demand for our products. Our customers determine their research and development budgets based on several factors, including the need to develop new products, the availability of governmental and other funding, competition and the general availability of resources. As we continue to expand our international operations, we expect research and development spending levels in markets outside of the United States will become increasingly important to us.

Research and development budgets fluctuate due to changes in available resources, spending priorities, general economic conditions, institutional and governmental budgetary limitations and mergers of pharmaceutical and biotechnology companies. Our business could be harmed by any significant decrease in life science and high technology research and development expenditures by our customers. In particular, a small portion of our sales has been to researchers whose funding is dependent on grants from government agencies such as the United States National Institute of Health, the National Science Foundation, the National Cancer Institute and similar agencies or organizations. Government funding of research and development is subject to the political process, which is often unpredictable. Other departments, such as Homeland Security or Defense, or general efforts to reduce the United States federal budget deficit could be viewed by the government as a higher priority. Any shift away from funding of life science and high technology research and development or delays surrounding the approval of governmental budget proposals may cause our customers to delay or forego purchases of our products and services, which could seriously damage our business.

Some of our customers receive funds from approved grants at a particular time of year, many times set by government budget cycles. In the past, such grants have been frozen for extended periods or have otherwise become unavailable to various institutions without notice. The timing of the receipt of grant funds may affect the timing of purchase decisions by our customers and, as a result, cause fluctuations in our sales and operating results.

Demand for our products and services are subject to the commercial success of our customers' products, which may vary for reasons outside our control.

Even if we are successful in securing utilization of our products in a customer's manufacturing process, sales of many of our products and services remain dependent on the timing and volume of the customer's production, over which we have no control. The demand for our products depends on regulatory approvals and frequently depends on the commercial success of the customer's supported product. Regulatory processes are complex, lengthy, expensive, and can often take years to complete.

We may bear financial risk if we under-price our contracts or overrun cost estimates.

In cases where our contracts are structured as fixed price or fee-for-service with a cap, we bear the financial risk if we initially under-price our contracts or otherwise overrun our cost estimates. Such underpricing or significant cost overruns could have a material adverse effect on our business, results of operations, financial condition and cash flows.

We rely on single or a limited number of third-party suppliers for the raw materials required to produce our products.

Our dependence on a limited number of third-party suppliers or on a single supplier, and the challenges we may face in obtaining adequate supplies of raw materials, involve several risks, including limited control over pricing, availability, quality and delivery schedules. We cannot be certain that our current suppliers will continue to provide us with the quantities of these raw materials that we require or satisfy our anticipated specifications and quality requirements. Any supply interruption in limited or sole sourced raw materials could materially harm our ability to manufacture our products until a new source of supply, if any, could be identified and qualified. Although we believe there are other suppliers of these raw materials, we may be unable to find a sufficient alternative supply channel in a reasonable time or on commercially reasonable terms. Any performance failure on the part of our suppliers could delay the development and commercialization of our products, or interrupt production of then existing products that are already marketed, which would have a material adverse effect on our business.

We may not be successful in acquiring complementary businesses or products on favorable terms.

As part of our business strategy, we intend to consider acquisitions of similar or complementary businesses or products. No assurance can be given that we will be successful in identifying attractive acquisition candidates or completing acquisitions on favorable terms. In addition, any future acquisitions will be accompanied by the risks commonly associated with acquisitions. These risks include potential exposure to unknown liabilities of acquired companies or to acquisition costs and expenses, the difficulty and expense of integrating the operations and personnel of the acquired companies, the potential disruption to the business of the combined company and potential diversion of our management's time and attention, the impairment of relationships with and the possible loss of key employees and clients as a result of the changes in management, the incurrence of amortization expenses and write-downs and dilution to the shareholders of the combined company if the acquisition is made for stock of the combined company. In addition, successful completion of an acquisition may depend on consents from third parties, including regulatory authorities and private parties, which consents are beyond our control. There can be no assurance that products, technologies or businesses of acquired companies will be effectively assimilated into the business or product offerings of the combined company or will have a positive effect on the combined company's revenues or earnings. Further, the combined company may incur significant expense to complete acquisitions and to support the acquired products and businesses. Any such acquisitions may be funded with cash, debt or equity, which could have the effect of diluting or otherwise adversely affecting the holdings or the rights of our existing stockholders.

If we experience a significant disruption in our information technology systems or if we fail to implement new systems and software successfully, our business could be adversely affected.

We depend on information systems throughout our company to control our manufacturing processes, process orders, manage inventory, process and bill shipments and collect cash from our customers, respond to customer inquiries, contribute to our overall internal control processes, maintain records of our property, plant and equipment, and record and pay amounts due vendors and other creditors. If we were to experience a prolonged disruption in our information systems that involve interactions with customers and suppliers, it could result in the loss of sales and customers and/or increased costs, which could adversely affect our overall business operation.

If we are unable to maintain sales, marketing and distribution capabilities or maintain arrangements with third parties to sell, market and distribute our products, our business may be harmed.

To achieve commercial success for our products, we must sell our product lines and/or technologies at favorable prices. In addition to being expensive, maintaining such a sales force is time-consuming. Qualified direct sales personnel with experience in the natural products industry are in high demand, and there can be no assurance that we will be able to hire or retain an effective direct sales team. Similarly, qualified independent sales representatives both within and outside the United States are in high demand, and we may not be able to build an effective network for the distribution of our product through such representatives. There can be no assurance that we will be able to enter into contracts with representatives on terms acceptable to us. Furthermore, there can be no assurance that we will be able to build an alternate distribution framework should we attempt to do so.

We may also need to contract with third parties in order to market our products. To the extent that we enter into arrangements with third parties to perform marketing and distribution services, our product revenue could be lower and our costs higher than if we directly marketed our products. Furthermore, to the extent that we enter into co-promotion or other marketing and sales arrangements with other companies, any revenue received will depend on the skills and efforts of others, and we do not know whether these efforts will be successful. If we are unable to establish and maintain adequate sales, marketing and distribution capabilities, independently or with others, we will not be able to generate product revenue, and may not become profitable.

-26-

Our business could be negatively impacted by cyber security threats.

In the ordinary course of our business, we use our data centers and our networks to store and access our proprietary business information. We face various cyber security threats, including cyber security attacks to our information technology infrastructure and attempts by others to gain access to our proprietary or sensitive information. The procedures and controls we use to monitor these threats and mitigate our exposure may not be sufficient to prevent cyber security incidents. The result of these incidents could include disrupted operations, lost opportunities, misstated financial data, liability for stolen assets or information, increased costs arising from the implementation of additional security protective measures, litigation and reputational damage. Any remedial costs or other liabilities related to cyber security incidents may not be fully insured or indemnified by other means.

Risks Related to Regulatory Approval of Our Products and Other Government Regulations

We are subject to regulation by various federal, state and foreign agencies that require us to comply with a wide variety of regulations, including those regarding the manufacture of products, advertising and product label claims, the distribution of our products and environmental matters. Failure to comply with these regulations could subject us to fines, penalties and additional costs.

Some of our operations are subject to regulation by various United States federal agencies and similar state and international agencies, including the Department of Commerce, the FDA, the FTC, the Department of Transportation and the Department of Agriculture. These regulations govern a wide variety of product activities, from design and development to labeling, manufacturing, handling, sales and distribution of products. If we fail to comply with any of these regulations, we may be subject to fines or penalties, have to recall products and/or cease their manufacture and distribution, which would increase our costs and reduce our sales.

We are also subject to various federal, state, local and international laws and regulations that govern the handling, transportation, manufacture, use and sale of substances that are or could be classified as toxic or hazardous substances. Some risk of environmental damage is inherent in our operations and the products we manufacture, sell, or distribute. Any failure by us to comply with the applicable government regulations could also result in product recalls or impositions of fines and restrictions on our ability to carry on with or expand in a portion or possibly all of our operations. If we fail to comply with any or all of these regulations, we may be subject to fines or penalties, have to recall products and/or cease their manufacture and distribution, which would increase our costs and reduce our sales.

Government regulations of our customer’s business are extensive and are constantly changing. Changes in these regulations can significantly affect customer demand for our products and services.

The process by which our customers’ industries are regulated is controlled by government agencies and depending on the market segment can be very expensive, time consuming, and uncertain. Changes in regulations or the enforcement practices of current regulations could have a negative impact on our customers and, in turn, our business. At this time, it is unknown how the FDA will interpret and to what extent it will enforce GMPs, regulations that will likely affect many of our customers. These uncertainties may have a material impact on our results of operations, as lack of enforcement or an interpretation of the regulations that lessens the burden of compliance for the dietary supplement marketplace may cause a reduced demand for our products and services.

Changes in government regulation or in practices relating to the pharmaceutical, dietary supplement, food and cosmetic industry could decrease the need for the services we provide.

Governmental agencies throughout the world, including in the United States, strictly regulate the pharmaceutical, dietary supplement, food and cosmetic industries. Our business involves helping pharmaceutical and biotechnology

companies navigate the regulatory drug approval process. Changes in regulation, such as a relaxation in regulatory requirements or the introduction of simplified drug approval procedures, or an increase in regulatory requirements that we have difficulty satisfying or that make our services less competitive, could eliminate or substantially reduce the demand for our services. Also, if the government makes efforts to contain drug costs and pharmaceutical and biotechnology company profits from new drugs, our customers may spend less, or reduce their spending on research and development. If health insurers were to change their practices with respect to reimbursements for pharmaceutical products, our customers may spend less, or reduce their spending on research and development.

If we should in the future become required to obtain regulatory approval to market and sell our goods we will not be able to generate any revenues until such approval is received.

The pharmaceutical industry is subject to stringent regulation by a wide range of authorities. While we believe that, given our present business, we are not currently required to obtain regulatory approval to market our goods because, among other things, we do not (i) produce or market any clinical devices or other products, or (ii) sell any medical products or services to the customer, we cannot predict whether regulatory clearance will be required in the future and, if so, whether such clearance will at such time be obtained for any products that we are developing or may attempt to develop. Should such regulatory approval in the future be required, our goods may be suspended or may not be able to be marketed and sold in the United States until we have completed the regulatory clearance process as and if implemented by the FDA. Satisfaction of regulatory requirements typically takes many years, is dependent upon the type, complexity and novelty of the product or service and would require the expenditure of substantial resources.

If regulatory clearance of a good that we propose to propose to market and sell is granted, this clearance may be limited to those particular states and conditions for which the good is demonstrated to be safe and effective, which would limit our ability to generate revenue. We cannot ensure that any good that we develop will meet all of the applicable regulatory requirements needed to receive marketing clearance. Failure to obtain regulatory approval will prevent commercialization of our goods where such clearance is necessary. There can be no assurance that we will obtain regulatory approval of our proposed goods that may require it.

Risks Related to the Securities Markets and Ownership of our Equity Securities

The market price of our common stock may be volatile and adversely affected by several factors.

The market price of our common stock could fluctuate significantly in response to various factors and events, including, but not limited to:

our ability to integrate operations, technology, products and services;

our ability to execute our business plan;

our operating results are below expectations;

our issuance of additional securities, including debt or equity or a combination thereof,;

announcements of technological innovations or new products by us or our competitors;

acceptance of and demand for our products by consumers;

media coverage regarding our industry or us;

litigation;

disputes with or our inability to collect from significant customers;

loss of any strategic relationship;

industry developments, including, without limitation, changes in healthcare policies or practices;

economic and other external factors;

reductions in purchases from our large customers;

period-to-period fluctuations in our financial results; and

whether an active trading market in our common stock develops and is maintained.

In addition, the securities markets have from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies. These market fluctuations may also materially and adversely affect the market price of our common stock.

Our shares of common stock may be thinly traded, so you may be unable to sell at or near ask prices or at all.

We cannot predict the extent to which an active public market for our common stock will develop or be sustained. This situation may be attributable to a number of factors, including the fact that we are a small company that is relatively unknown to stock analysts, stock brokers, institutional investors and others in the investment community who generate or influence sales volume, and that even if we came to the attention of such persons, they tend to be risk averse and would be reluctant to follow an unproven company such as ours or purchase or recommend the purchase of our shares until such time as we have become more seasoned and viable. As a consequence, there may be periods of several days or weeks when trading activity in our shares is minimal or non-existent, as compared to a seasoned issuer which has a large and steady volume of trading activity that will generally support continuous sales without an adverse effect on share price. We cannot assure you that a broader or more active public trading market for our common stock will develop or be sustained, or that current trading levels will be sustained or not diminish.

We have not paid cash dividends in the past and do not expect to pay cash dividends in the foreseeable future. Any return on investment may be limited to the value of our common stock.

We have never paid cash dividends on our capital stock and do not anticipate paying cash dividends on our capital stock in the foreseeable future. The payment of dividends on our capital stock will depend on our earnings, financial condition and other business and economic factors affecting us at such time as the board of directors may consider relevant. If we do not pay dividends, our common stock may be less valuable because a return on your investment will only occur if the common stock price appreciates.

Comprehensive tax reform could adversely affect our business and financial condition.

On December 22, 2017, U.S. federal income tax signed into law (H.R. 1, “An Act to provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018”), informally titled the Tax Cuts and Jobs Act, that significantly revises the Internal Revenue Code of 1986, as amended. The Tax Cuts and Jobs Act, among other things, contains significant changes to corporate taxation, including reduction of the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%, limitation of the tax deduction for interest expense to 30% of adjusted taxable income (except for certain small businesses), limitation of the deduction for net operating losses

carried forward from taxable years beginning after December 31, 2017 to 80% of current year taxable income and elimination of net operating loss carrybacks, one time taxation of offshore earnings at reduced rates regardless of whether they are repatriated, elimination of U.S. tax on foreign earnings (subject to certain important exceptions), immediate deductions for certain new investments instead of deductions for depreciation expense over time, and modifying or repealing many business deductions and credits (including reducing the business tax credit for certain clinical testing expenses incurred in the testing of certain drugs for rare diseases or conditions). Notwithstanding the reduction in the corporate income tax rate, the overall impact of the Tax Cuts and Jobs Act is uncertain and our business and financial condition could be adversely affected. In addition, it is unknown if and to what extent various states will conform to the Tax Cuts and Jobs Act. The impact of the Tax Cuts and Jobs Act on holders of our common stock is likewise uncertain and could be adverse. We urge our stockholders to consult with their legal and tax advisors with respect to this legislation and the potential tax consequences of investing in or holding our common stock.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

Our federal net operating losses ("NOL"s) generated in taxable years ending prior to 2018 could expire unused. Under the Tax Cuts and Jobs Act, federal NOLs incurred in taxable years ending after December 31, 2017, may be carried forward indefinitely, but the deductibility of federal NOLs generated in tax years beginning after December 31, 2017, is limited. It is uncertain if and to what extent various states will conform to the Tax Cuts and Jobs Act. In addition, under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, and corresponding provisions of state law, if a corporation undergoes an "ownership change," which is generally defined as a greater than 50% change (by value) in its equity ownership over a three-year period, the corporation's ability to use its pre-change NOL carryforwards, or NOLs, and other pre-change tax attributes (such as research tax credits) to offset its post-change income may be limited. In addition, we may also experience ownership changes in the future as a result of subsequent shifts in our stock ownership some of which may be outside of our control. As a result, if we earn net taxable income, our ability to use our pre-ownership change NOL carryforwards to offset U.S. federal taxable income may be subject to limitations, which could potentially result in increased future tax liability to us. In addition, at the state level, there may be periods during which the use of NOLs is suspended or otherwise limited, which could accelerate or permanently increase state taxes owed.

Stockholders may experience significant dilution if future equity offerings are used to fund operations or acquire complementary businesses.

If future operations or acquisitions are financed through the issuance of additional equity securities, stockholders could experience significant dilution. Securities issued in connection with future financing activities or potential acquisitions may have rights and preferences senior to the rights and preferences of our common stock. In addition, the issuance of shares of our common stock upon the exercise of outstanding options or warrants may result in dilution to our stockholders.

We may become involved in securities class action litigation that could divert management's attention and harm our business.

The stock market in general, and the stocks of early stage companies in particular, have experienced extreme price and volume fluctuations. These fluctuations have often been unrelated or disproportionate to the operating performance of the companies involved. If these fluctuations occur in the future, the market price of our shares could fall regardless of our operating performance. In the past, following periods of volatility in the market price of a particular company's securities, securities class action litigation has often been brought against that company. If the market price or volume of our shares suffers extreme fluctuations, then we may become involved in this type of litigation, which would be expensive and divert management's attention and resources from managing our business.

As a public company, we may also from time to time make forward-looking statements about future operating results and provide some financial guidance to the public markets. Projections may not be made in a timely manner or we might fail to reach expected performance levels and could materially affect the price of our shares. Any failure to meet published forward-looking statements that adversely affect the stock price could result in losses to investors, stockholder lawsuits or other litigation, sanctions or restrictions issued by the Securities and Exchange Commission.

We have a significant number of outstanding options and warrants, and future sales of these shares could adversely affect the market price of our common stock.

As of December 31, 2018, we had outstanding options for an aggregate of approximately 9.1 million shares of common stock at a weighted average exercise price of $3.79 per share and outstanding warrants exercisable for an aggregate of approximately 0.2 million shares of common stock at a weighted average exercise price of $3.69 per

share. The holders may sell many of these shares in the public markets from time to time, without limitations on the timing, amount or method of sale. As and when our stock price rises, if at all, more outstanding options and warrants will be in-the-money and the holders may exercise their options and warrants and sell a large number of shares. This could cause the market price of our common stock to decline.

-30-

Item 1B.
Unresolved Staff Comments

None.

Item 2.
Properties

As of December 31, 2018, we lease (i) approximately 10,000 square feet of office space in Los Angeles, California with three years remaining on the lease approximately, (ii) 15,000 square feet of office space in Irvine, California with nine months remaining on the lease, (iii) approximately 10,000 square feet of space for research and development laboratory in Longmont, Colorado with six years remaining on the lease, and (iv) approximately 2,300 square feet of office space in Rockville, Maryland with two years remaining on the lease. The below table illustrates the use of each property by our business segments.

Business Segment	Property Used
Consumer Products	All properties
Ingredients	All properties
Analytical Reference Standards and Services	Irvine, CA, Longmont, CO and Rockville, MD

We do not own any real estate. For the year ended December 31, 2018, our total annual rental expense was approximately $791,000.

Item 3.
Legal Proceedings

Elysium Health, LLC

(A) California Action

On December 29, 2016, ChromaDex, Inc. filed a complaint in the United States District Court for the Central District of California, naming Elysium Health, Inc. (together with Elysium Health, LLC, “Elysium”) as defendant (the “Complaint”). On January 25, 2017, Elysium filed an answer and counterclaims in response to the Complaint (together with the Complaint, the “California Action”). Over the course of the California Action, the parties have each filed amended pleadings several times and have each engaged in several rounds of motions to dismiss and one round of motion for judgment on the pleadings with respect to various claims. Most recently, on November 27, 2018, ChromaDex, Inc. filed a fifth amended complaint that added an individual, Mark Morris, as a defendant. Elysium and Morris (“the Defendants”) moved to dismiss on December 21, 2018. The court denied Defendants’ motion on February 4, 2019.

Following the court's February 4, 2019 order, the claims that ChromaDex, Inc. presently asserts in the California Action, among other allegations, are that (i) Elysium breached the Supply Agreement, dated June 26, 2014, by and between ChromaDex, Inc. and Elysium (the "pTeroPure® Supply Agreement"), by failing to make payments to ChromaDex, Inc. for purchases of pTeroPure® and by improper disclosure of confidential ChromaDex, Inc. information pursuant to the pTeroPure® Supply Agreement, (ii) Elysium breached the Supply Agreement, dated February 3, 2014, by and between ChromaDex, Inc. and Elysium, as amended (the "NIAGEN® Supply Agreement"), by failing to make payments to ChromaDex, Inc. for purchases of NIAGEN® and by improper disclosure of confidential ChromaDex, Inc. information pursuant to the NIAGEN® Supply Agreement, (iii) Defendants willfully and maliciously misappropriated ChromaDex, Inc. trade secrets concerning its ingredient sales business under both the California Uniform Trade Secrets Act and the Federal Defend Trade Secrets Act, (iv) Morris breached two confidentiality agreements he signed by improperly stealing confidential ChromaDex, Inc. documents and information, (v) Morris breached his fiduciary duty to ChromaDex, Inc. by lying to and competing with ChromaDex, Inc. while still employed there, and (vi) Elysium aided and abetted Morris's breach of fiduciary duty. ChromaDex, Inc. is seeking damages and interest for Elysium's alleged breaches of the NIAGEN® Supply Agreement and pTeroPure® Supply Agreement and Morris's alleged breaches of his confidentiality agreements, compensatory damages and interest, punitive damages, injunctive relief, and attorney's fees for Defendants' alleged willful and malicious misappropriation of ChromaDex, Inc.'s trade secrets, and compensatory damages and interest, disgorgement of all benefits received, and punitive damages for Morris's alleged breach of his fiduciary duty and Elysium's aiding and abetting of that alleged breach. Defendants filed their answer to ChromaDex, Inc.'s fifth amended complaint on February 19, 2019.

Among other allegations, the claims that Elysium presently alleges in the California Action are that (i) ChromaDex, Inc. breached the NIAGEN® Supply Agreement by not issuing certain refunds or credits to Elysium, by not supplying NIAGEN® manufactured according to the defined standard, by distributing the NIAGEN® product specifications attached to the parties' agreement to other customers, and by failing to provide Elysium with information concerning the quality and identity of NIAGEN® pursuant to the NIAGEN® Supply Agreement, (ii) ChromaDex, Inc. breached the implied covenant of good faith and fair dealing pursuant to the NIAGEN® Supply Agreement, (iii) ChromaDex, Inc. fraudulently induced Elysium into entering into the Trademark License and Royalty Agreement, dated February 3, 2014, by and between ChromaDex, Inc. and Elysium (the "License Agreement"), (iv) ChromaDex, Inc.'s conduct constitutes misuse of its patent rights, and (v) ChromaDex, Inc. was unjustly enriched by the royalties Elysium paid pursuant to the License Agreement. Elysium is seeking damages for ChromaDex, Inc.'s alleged breaches of the NIAGEN® Supply Agreement and pTeroPure® Supply Agreement, and compensatory damages, punitive damages, and/or rescission of the License Agreement and restitution of any royalty payments conveyed by Elysium pursuant to the License Agreement, and a declaratory judgment that ChromaDex, Inc. has engaged in patent misuse. ChromaDex, Inc. answered Elysium's present allegations on August 24, 2018. The parties are currently in discovery.

(B) Patent Office Proceedings

On July 17, 2017, Elysium filed petitions with the U.S. Patent and Trademark Office for inter partes review of U.S. Patents 8,197,807 (the "'807 Patent") and 8,383,086 (the "'086 Patent"), patents to which ChromaDex, Inc. is the exclusive licensee. The Patent Trial and Appeal Board ("PTAB") denied institution of the inter partes review for the '807 Patent on January 18, 2018. On January 29, 2018, the PTAB granted institution of the inter partes review as to claims 1, 3, 4, and 5 and denied institution as to claim 2 of the '086 Patent. Based upon a recent U.S. Supreme Court decision, and solely on a procedural basis, the PTAB was required to include claim 2 in the trial of the inter partes review. The matter was heard on October 2, 2018. The PTAB issued its written decision on January 16, 2019, upholding claim 2 of the '086 Patent which relates to the use of isolated NR in a pharmaceutical composition as valid. Elysium is now prevented from raising invalidity arguments against the '086 Patent in the ongoing patent litigation in Delaware that it brought or could have brought before the PTAB in its inter partes review.

-32-

(C) Southern District of New York Action

On September 27, 2017, Elysium Health Inc. ("Elysium Health") filed a complaint in the United States District Court for the Southern District of New York, against ChromaDex, Inc. (the “Elysium SDNY Complaint”). Elysium Health alleges in the Elysium SDNY Complaint that ChromaDex, Inc. made false and misleading statements in a citizen petition to the Food and Drug Administration it filed on or about August 18, 2017. Among other allegations, Elysium Health avers that the citizen petition made Elysium Health’s product appear dangerous, while casting ChromaDex, Inc.’s own product as safe. The Elysium SDNY Complaint asserts four claims for relief: (i) false advertising under the Lanham Act, 15 U.S.C. § 1125(a); (ii) trade libel; (iii) deceptive business practices under New York General Business Law § 349; and (iv) tortious interference with prospective economic relations. ChromaDex, Inc. denies the claims in the Elysium SDNY Complaint and intends to defend against them vigorously. On October 26, 2017, ChromaDex, Inc. moved to dismiss the Elysium SDNY Complaint on the grounds that, inter alia, its statements in the citizen petition are immune from liability under the Noerr-Pennington Doctrine, the litigation privilege, and New York’s Anti-SLAPP statute, and that the Elysium SDNY Complaint failed to state a claim. Elysium Health opposed the motion on November 2, 2017. ChromaDex, Inc. filed its reply on November 9, 2017.

On October 26, 2017, ChromaDex, Inc. filed a complaint in the United States District Court for the Southern District of New York against Elysium Health (the “ChromaDex SDNY Complaint”). ChromaDex, Inc. alleges that Elysium Health made material false and misleading statements to consumers in the promotion, marketing, and sale of its health supplement product, Basis, and asserts five claims for relief: (i) false advertising under the Lanham Act, 15 U.S.C. §1125(a); (ii) unfair competition under 15 U.S.C. § 1125(a); (iii) deceptive practices under New York General Business Law § 349; (iv) deceptive practices under New York General Business Law § 350; and (v) tortious interference with prospective economic advantage. On November 16, 2017, Elysium Health moved to dismiss for failure to state a claim. ChromaDex, Inc. opposed the motion on November 30, 2017 and Elysium Health filed a reply on December 7, 2017.

On November 3, 2017, the Court consolidated the Elysium SDNY Complaint and the ChromaDex SDNY Complaint actions under the caption In re Elysium Health-ChromaDex Litigation, 17-cv-7394, and stayed discovery in the consolidated action pending a Court-ordered mediation. The mediation was unsuccessful. On September 27, 2018, the Court issued a combined ruling on both parties’ motions to dismiss. For ChromaDex’s motion to dismiss, the Court converted the part of the motion on the issue of whether the citizen petition is immune under the Noerr-Pennington Doctrine into a motion for summary judgment, and requested supplemental evidence from both parties, which were submitted on October 29, 2018. The Court otherwise denied the motion to dismiss. On January 3, 2019, the Court granted ChromaDex, Inc.’s motion for summary judgment under the Noerr-Pennington Doctrine and dismissed all claims in the Elysium SDNY Complaint. Elysium moved for reconsideration on January 17, 2019. The Court denied Elysium’s motion for reconsideration on February 6, 2019, and issued an amended final order granting ChromaDex, Inc.’s motion for summary judgment as on February 7, 2019.

The Court granted in part and denied in part Elysium’s motion to dismiss, sustaining three grounds for ChromaDex’s Lanham Act claims while dismissing two others, sustaining the claim under New York General Business Law § 349, and dismissing the claims under New York General Business Law § 350 and for tortious interference. Elysium filed an answer and counterclaims on October 10, 2018, alleging claims for (i) false advertising under the Lanham Act, 15 U.S.C. §1125(a); (ii) unfair competition under 15 U.S.C. § 1125(a); and (iii) deceptive practices under New York General Business Law § 349. ChromaDex answered Elysium’s counterclaims on November 2, 2018. The parties are conferring on a proposed scheduling order.

The Company is unable to predict the outcome of these matters and, at this time, cannot reasonably estimate the possible loss or range of loss with respect to the legal proceedings discussed herein. As of December 31, 2018, ChromaDex, Inc. did not accrue a potential loss for the California Action or the Elysium SDNY Complaint because

ChromaDex, Inc. believes that the allegations are without merit and thus it is not probable that a liability has been incurred.

(D) Delaware – Patent Infringement Action

On September 17, 2018, ChromaDex, Inc. and Trustees of Dartmouth College filed a patent infringement complaint in the United States District Court for the District of Delaware against Elysium Health, Inc. The complaint alleges that Elysium's BASIS® dietary supplement violates U.S. Patents 8,197,807 (the "'807 Patent") and 8,383,086 (the "'086 Patent") that comprise compositions containing isolated nicotinamide riboside held by Dartmouth and licensed exclusively to ChromaDex, Inc. On October 23, 2018, Elysium filed an answer to the complaint. The answer asserts various affirmative defenses and denies that Plaintiffs are entitled to any relief.

On November 7, 2018, Elysium filed a motion to stay the patent infringement proceedings pending resolution of (1) the inter partes review of the ’807 Patent and the ’086 Patent before the Patent Trial and Appeal Board (“PTAB”) and (2) the outcome of the litigation in the California Action. ChromaDex, Inc. filed an opposition brief on November 21, 2018 detailing the issues with Elysium’s motion to stay. In particular, ChromaDex, Inc. argued that given claim 2 of the ’086 Patent was only included in the PTAB’s inter partes review for procedural reasons the PTAB was unlikely to invalidate claim 2 and therefore litigation in Delaware would continue regardless. In addition, ChromaDex, Inc. argued that the litigation in the California Action is unlikely to have a significant effect on the ongoing patent litigation. After the PTAB released its written decision upholding claim 2 of the ’086 Patent proving right ChromaDex, Inc.’s prediction ChromaDex, Inc. informed the Delaware court of the PTAB’s decision on January 17, 2019. Both Elysium and ChromaDex, Inc. have informed the court that they are available for oral argument on the motion to stay, and though the court’s docket is very crowded, ChromaDex, Inc. currently anticipates a ruling this spring.

Covance Laboratories Inc.

On January 10, 2019, Covance Laboratories Inc. (“Covance”) filed a complaint in the United States District Court for the District of Delaware against ChromaDex, Inc. and ChromaDex Analytics, Inc. (collectively “ChromaDex”). The complaint alleges that ChromaDex breached an Asset Purchase Agreement (“APA”), dated August 21, 2017, between Covance and ChromaDex in which Covance purchased certain assets related to ChromaDex’s Lab Business for $7,500,000. Specifically, the complaint alleges that ChromaDex failed to deliver to Covance its entire ComplyID library. On February 4, 2019, ChromaDex filed an answer to the complaint. The answer asserts various affirmative defenses and denies that Covance is entitled to any relief.

From time to time we are involved in legal proceedings arising in the ordinary course of our business. We believe that there is no other litigation pending that is likely to have, individually or in the aggregate, a material adverse effect on our financial condition or results of operations.

Item 4.
Mine Safety Disclosures

Not applicable.

PART II

Item 5.
Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Since April 25, 2016, our common stock has been traded on The NASDAQ Capital Market ("NASDAQ") under the symbol "CDXC." On February 28, 2019, the closing sale price was $3.49.

Holders of Our Common Stock

As of February 28, 2019, we had approximately 51 registered holders of record of our common stock.

Dividend Policy

We have not declared or paid any cash dividends on our common stock during either of the two most recent fiscal years and have no current intention to pay any cash dividends. Our ability to pay cash dividends is governed by applicable provisions of Delaware law and is subject to the discretion of our Board of Directors.

Recent Sales of Unregistered Securities

Other than as previously disclosed in our past Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, the Company did not have any sales of unregistered securities for the period covered by this Annual Report on Form 10-K.

Item 6.
Selected Financial Data

Not Applicable.

Item 7.
Management's Discussion and Analysis of Financial Condition and Results of Operations

You should read the following discussion and analysis of financial condition and results of operation together with "Selected Financial Data," the consolidated financial statements and the related notes included elsewhere this Form 10-K. This discussion contains forward-looking statements that involve risks and uncertainties. When reviewing the discussion below, you should keep in mind the substantial risks and uncertainties that impact our business. In particular, we encourage you to review the risks and uncertainties described in "Risk Factors" in Part I, Item 1A in this Form 10-K. These risks and uncertainties could cause actual results to differ materially from those projected in forward-looking statements contained in this report or implied by past results and trends.

Overview

ChromaDex Corporation and its wholly owned subsidiaries, ChromaDex, Inc., Healthspan Research, LLC and ChromaDex Analytics, Inc. (collectively, the "Company" "ChromaDex" or, in the first person as "we" "us" and "our") are a science-based integrated nutraceutical company devoted to improving the way people age. ChromaDex scientists partner with leading universities and research institutions worldwide to discover, develop and create products to deliver the full potential of nicotinamide adenine dinucleotide ("NAD") and its impact on human health. Our flagship ingredient, NIAGEN® nicotinamide riboside, a precursor to NAD sold directly to consumers as TRU NIAGEN®, is backed with clinical and scientific research, as well as intellectual property protection. The Company also has analytical reference standards and services segment, which focuses on natural product fine chemicals (known as "phytochemicals"), chemistry services, and regulatory consulting.

The discussion and analysis of our financial condition and results of operations are based on the ChromaDex financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires making estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenues, if any, and expenses during the reporting periods. On an ongoing basis, we evaluate such estimates and judgments, including those described in greater detail below. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

As of December 31, 2018, cash and cash equivalents totaled approximately $22.6 million. The Company anticipates that its current cash, cash equivalents and cash to be generated from operations will be sufficient to meet its projected operating plans through at least the next twelve months from the issuance date of this report. The Company may, however, seek additional capital in the next twelve months, both to meet its projected operating plans after the next twelve months and/or to fund its longer term strategic objectives.

Additional capital may come from public and/or private stock or debt offerings, borrowings under lines of credit or other sources. These additional funds may not be available on favorable terms, or at all. Further, if we issue equity or debt securities to raise additional funds, our existing stockholders may experience dilution and the new equity or debt securities we issue may have rights, preferences and privileges senior to those of our existing stockholders. In addition, if we raise additional funds through collaboration, licensing or other similar arrangements, it may be necessary to relinquish valuable rights to our products or proprietary technologies, or to grant licenses on terms that are not favorable to us. If we cannot raise funds on acceptable terms, we may not be able to develop or enhance our products, obtain the required regulatory clearances or approvals, achieve long term strategic objectives, take advantage of future opportunities, or respond to competitive pressures or unanticipated customer requirements. Any of these events could adversely affect our ability to achieve our development and commercialization goals, which could

have a material and adverse effect on our business, results of operations and financial condition.

Some of our operations are subject to regulation by various state and federal agencies. Dietary supplements are subject to FDA, FTC and U.S. Department of Agriculture regulations relating to composition, labeling and advertising claims. These regulations may in some cases, particularly with respect to those applicable to new ingredients, require a notification that must be submitted to the FDA along with evidence of safety. There are similar regulations related to food additives.

Results of Operations

Our losses per basic and diluted share were $0.61 and $0.26 for the twelve-month periods ended December 31, 2018 and December 30, 2017, respectively. Over the next two years, we plan to continue to increase marketing, research and development efforts for our flagship ingredient, NIAGEN® nicotinamide riboside, and our consumer branded product TRU NIAGEN®.

(In thousands)	Twelve months ending	
	Dec. 31, 2018	Dec. 30, 2017
Sales	$31,557	$21,201
Cost of sales	15,502	10,724
Gross profit	16,055	10,477
Operating expenses -Sales and marketing	16,537	4,459
-Research and development	5,478	4,007
-General and administrative	27,137	17,642
-Other	75	746
Nonoperating -Interest expense, net	(79)	(153)
-Other	(65)	-
Loss from continuing operations	(33,316)	(16,530)
Income (loss) from discontinued operations, net	-	5,152
Net loss	$(33,316)	$(11,378)

Net Sales. Net sales consist of gross sales less discounts and returns.

	Twelve months ending		
(In thousands)	December 31, 2018	December 30, 2017	Change
Net sales:			
Consumer Products	$18,451	$5,465	238%
Ingredients	8,565	11,153	-23%
Analytical reference standards and services	4,541	4,583	-1%
Total net sales	$31,557	$21,201	49%

The Company's TRU NIAGEN® sales for consumer products segment increased after the Company's strategic shift towards consumer products in 2017. The Company expects the sales for the consumer products segment to continue to grow over the next twelve months.

The decrease in sales for the ingredients segment is mainly due to decreased sales of NIAGEN®. The Company made a strategic decision to transition from an ingredient company to a consumer-facing company that has resulted in a shift in our sales away from resellers of NIAGEN® to our TRU NIAGEN® branded consumer product

The decrease in sales for the analytical reference standards and services segment is primarily due to decreased sales of regulatory consulting and other research and development services.

Cost of Sales. Costs of sales include raw materials, labor, overhead, and delivery costs.

	Twelve months ending			
(In thousands)	December 31, 2018		December 30, 2017	
	Amount	% ofnet sales	Amount	% ofnet sales
Cost of sales:				
Consumer Products	$7,222	39%	$2,190	40%
Ingredients	4,831	56%	5,492	49%
Analytical reference standards and services	3,449	76%	3,042	66%
Total cost of sales	$15,502	49%	$10,724	51%

The cost of sales, as a percentage of net sales, decreased 2%.

The cost of sales, as a percentage of net sales, for the consumer products segment decreased 1%. Compared to the other segments, the consumer products segment experienced better margins due to the positive impact of TRU NIAGEN® consumer product sales.

The cost of sales, as a percentage of net sales, for the ingredients segment increased 7%. The increase is largely due to a write off of our inventory of approximately $442,000 in 2018.

The cost of sales, as a percentage of net sales for the analytical reference standards and services segment, increased 10%. The decrease in other research and development services sales led to a lower labor utilization rate, which resulted in increasing our cost of sales as a percentage of sales.

Gross Profit. Gross profit is net sales less the cost of sales and is affected by a number of factors including product mix, competitive pricing and costs of products and services.

	Twelve months ending		
(In thousands)	December 31, 2018	December 30, 2017	Change
Gross profit:			

Consumer Products	$11,229	$3,275	243%
Ingredients	3,734	5,661	-34%
Analytical reference standards and services	1,092	1,541	-29%
Total gross profit	$16,055	$10,477	53%

The consumer products segment posted gross profit of $11.2 million in 2018. The Company expects the sales and gross profit for consumer products segment to continue to grow over the next twelve months.

The decreased gross profit for the ingredients segment was largely due to a decrease in sales as the Company transitions from an ingredient company to a consumer driven nutraceutical company. In addition, we had a write off of our inventory of approximately $442,000 in 2018.

The decreased gross profit for the analytical reference standards and services segment is largely due to the decreased sale of other research and development services. Fixed labor costs make up the majority of costs of other services and these fixed labor costs did not decrease in proportion to sales, hence yielding lower profit margin.

Operating Expenses – Sales and Marketing. Sales and Marketing Expenses consist of salaries, advertising and marketing expenses.

	Twelve months ending		
(In thousands)	December 31, 2018	December 30, 2017	Change
Sales and marketing expenses:			
Consumer Products	$15,063	$2,673	464%
Ingredients	727	1,280	-43%
Analytical reference standards and services	747	506	48%
Total sales and marketing expenses	$16,537	$4,459	271%

For the consumer products segment, the Company has increased staffing as well as direct marketing expenses associated with social media and other customer awareness and acquisition programs. The Company plans to continue to invest in building out our own global branded consumer product business.

For the ingredients segment, the decrease in 2018 is largely due to decreased marketing efforts as the Company shifts towards consumer products.

For the analytical reference standards and services segment, the increase is mainly due to increased marketing efforts.

Operating Expenses – Research and Development. Research and Development Expenses consist of clinical trials and process development expenses.

Twelve months ending

(In thousands)	December 31, 2018	December 30, 2017	Change
Research and development expenses:			
Consumer Products	$3,852	$1,104	249%
Ingredients	1,626	2,903	-44%
Total research and development expenses	$5,478	$4,007	37%

In 2017, we began allocating the research and development expenses related to our NIAGEN® branded ingredient to the consumer products and ingredients segment, based on revenues recorded. Previously, these expenses were recorded all in the ingredients segment. Overall, we increased our research and development efforts and we plan to continue to increase research and development efforts for our flagship ingredient, NIAGEN® nicotinamide riboside. In 2018, we focused on technology development to lower production costs as well as obtaining international regulatory approvals.

Operating Expenses – General and Administrative. General and Administrative Expenses consist of general company administration, IT, accounting and executive management expenses.

	Twelve months ending		
(In thousands)	December 31, 2018	December 30, 2017	Change
General and administrative	$27,137	$17,642	54%

The following expenses contributed to the increase in general and administrative expenses in 2018:

An increase in legal expenses. Our legal expenses increased to approximately $9.8 million in 2018 compared to approximately $5.1 million in 2017. The ongoing litigation with Elysium and our increased efforts to file and maintain patents related to the proprietary ingredient technologies were the main reasons for the increase in legal expenses.

An increase in share-based compensation. Our share-based compensation recorded as general and administrative expense increased to approximately $5.6 million in 2018 compared to approximately $4.6 million in 2017.

An increase in information and technology expense. Our information and technology expense increased to approximately $1.5 million in 2018, compared to approximately $0.8 million in 2017. We invested in additional staff as well as external consulting in developing and maintaining our Ecommerce platform, which we use to sell our branded consumer product TRU NIAGEN®.

An increase in royalties we paid to patent holders. Our royalty expense increased to approximately $1.6 million in 2018, compared to approximately $0.9 million in 2017. The increases are due to increased sales for licensed products in 2018.

Operating Expenses – Other. Other expense consists of reserve placed against escrow receivable and loss from an ongoing litigation with Elysium.

	Twelve months ending		
(In thousands)	December 31, 2018	December 30, 2017	Change
Other	$75	$746	-90%

In 2017, in relation to the ongoing litigation, the Company incurred a write-off of approximately $746,000 in gross trade receivable from Elysium related to royalties billed as part of the existing Trademark License and Royalty Agreement.

Nonoperating – Interest Expense, net. Interest expense, net consists of interest on loan payable and capital leases offset by interest income.

	Twelve months ending		
(In thousands)	December 31, 2018	December 30, 2017	Change
Interest expense, net	$79	$153	-48%

The decrease in interest expense was mainly due to the costs related to maintaining the line of credit the Company established with Western Alliance Bank. In June 2018, the Company notified Western Alliance that it did not intend to draw from the line of credit established by the Financing Agreement. As a result, the Company has not incurred maintenance costs related to the line of credit in the second half of 2018.

Depreciation and Amortization. For the twelve-month period ended December 31, 2018, we recorded approximately $0.6 million in depreciation compared to approximately $0.5 million for the twelve-month period ended December 30, 2017. We depreciate our assets on a straight-line basis, based on the estimated useful lives of the respective assets. We amortize intangible assets using a straight-line method, generally over 10 years. For licensed patent rights, the useful lives are 10 years or the remaining term of the patents underlying licensing rights, whichever is shorter. The useful lives of subsequent milestone payments that are capitalized are the remaining useful life of the initial licensing payment that was capitalized. In the twelve-month period ended December 31, 2018, we recorded amortization on intangible assets of approximately $0.2 million compared to approximately $0.2 million for the twelve-month period ended December 30, 2017.

Income Taxes. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized. At December 31, 2018 and December 30, 2017, the Company maintained a full valuation allowance against the entire deferred income tax balance which resulted in an effective tax rate of 0% for each of 2018 and 2017. As defined in ASC 740, Income Taxes, future realization of the tax benefit will depend on the existence of sufficient taxable income, including the expectation of continued future taxable income.

Net cash used in operating activities. Net cash used in operating activities for the twelve-month period ended December 31, 2018 was approximately $20.9 million as compared to approximately $9.8 million for the twelve-month period ended December 30, 2017. Along with the net loss, an increase inventories was the largest use of cash during the twelve-month period ended December 31, 2018. Net cash used in operating activities for the twelve-month period ended December 30, 2017 largely reflects a decrease in accounts payable along with the net loss.

We expect our operating cash flows to fluctuate significantly in future periods as a result of fluctuations in our operating results, shipment timetables, accounts receivable collections, inventory management, and the timing of our payments, among other factors.

Net cash used in investing activities. Net cash used by investing activities was approximately $1.8 million for the twelve-month period ended December 31, 2018, compared to approximately $4.6 million provided for the twelve-month period ended December 30, 2017. Net cash used by investing activities for the twelve-month period ended December 31, 2018, mainly consisted of purchases of leasehold improvements and equipment and intangible assets, as well as a long-term related party investment. Net cash provided by investing activities for the twelve-month period ended December 30, 2017, mainly consisted of proceeds from disposal of assets, offset by purchases of leasehold improvements and equipment and intangible assets.

Net cash provided by financing activities. Net cash used in financing activities was approximately $90,000 for the twelve-month period ended December 31, 2018, compared to approximately $48.9 million provided financing activities for the twelve-month period ended December 30, 2017. Net cash used in financing activities for 2018 primarily consisted of repurchase of common stock and principal payments on capital leases, partially offset by proceeds from the exercise of stock options. Net cash provided by financing activities for 2017 mainly consisted of proceeds from issuances of our common stock and exercise of stock options, offset by principal payments on capital leases.

Trade Receivables. As of December 31, 2018, we had approximately $4.4 million in trade receivables as compared to approximately $5.3 million as of December 30, 2017.

Inventories. As of December 31, 2018, we had approximately $8.2 million in inventory, compared to approximately $5.8 million as of December 30, 2017. As of December 31, 2018, our inventory consisted of approximately $2.3 million of bulk ingredients, approximately $5.2 million of consumer products and approximately $0.7 million of phytochemical reference standards. Bulk ingredients are proprietary compounds sold to customers in larger quantities, typically in kilograms. These ingredients are used by our customers in the dietary supplement, food and beverage, animal health, cosmetic and pharmaceutical industries to manufacture their final products. Consumer products inventory consists of TRU NIAGEN® branded finished bottles of dietary supplement products and related work-in-process inventory. Phytochemical reference standards are small quantities of plan-based compounds typically used to research an array of potential attributes or for quality control purposes. The Company currently lists over 1,500 phytochemicals and 300 botanical reference materials in our catalog and holds a lot of these as inventory in small quantities, mostly in grams and milligrams.

Our normal operating cycle for reference standards is currently longer than one year. Due to the large number of different items we carry, certain groups of these reference standards have a sales frequency that is slower than others and varies greatly year to year. In addition, for certain reference standards, the cost saving is advantageous when purchased in larger quantities and we have taken advantage of such opportunities when available. Such factors have resulted in an operating cycle to be more than one year on average. The Company gains competitive advantage through the broad offering of reference standards and it is critical for the Company to continue to expand its library of reference standards it offers for the growth of business. Nevertheless, the Company has recently made changes in its reference standards inventory purchasing practice, which the management believes will result in an improved turnover rate and shorter operating cycle without impacting our competitive advantage.

The Company regularly reviews inventories on hand and reduces the carrying value for slow-moving and obsolete inventory, inventory not meeting quality standards and inventory subject to expiration. The reduction of the carrying value for slow-moving and obsolete inventory is based on current estimates of future product demand, market conditions and related management judgment. Any significant unanticipated changes in future product demand or market conditions that vary from current expectations could have an impact on the value of inventories.

We strive to optimize our supply chain as we constantly search for better and more reliable sources and suppliers. By doing so, we believe we can lower the costs of our inventory and yield higher gross profit. In addition, we are working

with our suppliers and partners to develop more efficient manufacturing methods of the raw materials, in an effort to lower the costs of our inventory.

Accounts Payable. As of December 31, 2018, we had $9.5 million in accounts payable compared to approximately $3.7 million as of December 30, 2017. The increase was mainly due to an increase in inventory and higher advertising and legal expenses.

Contract liabilities and customer deposits. As of December 31, 2018, we had approximately $0.3 million in contract liabilities and customer deposits compared to approximately $0.3 million as of December 30, 2017. These deposits are for large-scale consulting projects, contract services and research projects where we require a deposit before beginning work.

Liquidity and Capital Resources

For the twelve-month periods ended December 31, 2018, and December 30, 2017, the Company has incurred losses from continuing operations of approximately $33.3 million and $16.5 million, respectively. Net cash used in operating activities for the twelve-month periods ended December 31 2018, and December 30, 2017, was approximately $20.9 million and $9.8 million, respectively. The losses and the uses of cash are primarily due to expenses associated with the development and expansion of our operations. These operations have been financed through capital contributions, the issuance of common stock through private placements.

Our Board of Directors periodically reviews our capital requirements in light of our proposed business plan. Our future capital requirements will remain dependent upon a variety of factors, including cash flow from operations, the ability to increase sales, increasing our gross profits from current levels, reducing sales and administrative expenses as a percentage of net sales, continued development of customer relationships, and our ability to market our new products successfully. However, based on our results from operations, we may determine that we need additional financing to implement our business plan. Additional financing may come from public and private equity or debt offerings, borrowings under lines of credit or other sources. These additional funds may not be available on favorable terms, or at all. There can be no assurance we will be successful in raising these additional funds. Without adequate financing we may have to further delay or terminate product or service expansion plans. Any inability to raise additional financing would have a material adverse effect on us.

As of December 31, 2018, the cash and cash equivalents totaled approximately $22.6 million. The Company anticipates that its current cash, cash equivalents and cash to be generated from operations will be sufficient to meet its projected operating plans through at least the next twelve months from the issuance date of this report. The Company may, however, seek additional capital within the next twelve months, both to meet its projected operating plans after the next twelve months and/or to fund its longer term strategic objectives.

Dividend Policy

We have not declared or paid any cash dividends on our common stock. We presently intend to retain earnings for use in our operations and to finance our business. Any change in our dividend policy is within the discretion of our board of directors and will depend, among other things, on our earnings, debt service and capital requirements, restrictions in financing agreements, if any, business conditions, legal restrictions and other factors that our board of directors deems relevant.

Off-Balance Sheet Arrangements

During the fiscal years ended December 31, 2018 and December 30, 2017, we had no off-balance sheet arrangements other than ordinary operating leases as disclosed in the accompanying financial statements.

Contractual Obligations and Commitments

The following table summarizes our contractual obligations and other commitments as of December 31, 2018:

	Payments due by period					
(In thousands)	Total	2019	2020	2021	2022	2023
Capital leases	$340	$196	$126	$18	$-	$-
Operating leases	2,428	787	733	627	138	143
Purchase obligations	4,365	4,365	-	-	-	-
Total	$7,133	$5,348	$859	$645	$138	$143

Capital leases. We lease equipment under capitalized lease obligations with a term of typically 4 or 5 years. We make monthly installment payments for these leases.

Operating leases. We lease our office and research facilities in California, Colorado and Maryland under operating lease agreements that expire at various dates from September 2019 through February 2024. We make monthly payments on these leases.

Purchase obligations. We enter into purchase obligations with various vendors for goods and services that we need for our operations. The purchase obligations for goods and services include inventory, research and development, and laboratory supplies.

Critical Accounting Policies

The discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosures. On an ongoing basis, we evaluate these estimates, including those related to the valuation of share-based payments. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Our significant accounting policies are described in Note 2 of the Financial Statements, set forth in Item 8 of this Form 10-K.

Item 7A.
Quantitative and Qualitative Disclosures About Market Risk

Not applicable

Item 8.
Financial Statements and Supplementary Data

The financial statements are set forth in the pages listed below.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of
ChromaDex Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of ChromaDex Corporation and Subsidiaries (the "Company") as of December 31, 2018 and December 30, 2017, the related consolidated statements of operations, stockholders' equity and cash flows for each of the two years in the period ended December 31 2018, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and December 30, 2017, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of December 31, 2018, based on the criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in 2013 and our report dated March 7, 2019, expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Marcum llp

/s/ Marcum LLP

We have served as the Company's auditor since 2013.

New York, NY

March 7, 2019

-46-

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM ON INTERNAL CONTROL OVER FINANCIAL REPORTING

To the Shareholders and Board of Directors of
ChromaDex Corporation

Opinion on Internal Control over Financial Reporting

We have audited ChromaDex Corporation's (the “Company”) internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (“PCAOB”), the consolidated balance sheets as of December 31, 2018 and December 30, 2017 and the related consolidated statements of operations, stockholders’ equity, and cash flows for each of the years then ended of the Company and our report dated March 7, 2019 expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying “Management Annual Report on Internal Control over Financial Reporting”. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding

prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that degree of compliance with the policies or procedures may deteriorate.

/s/ Marcum LLP

Marcum llp

New York, NY
March 7, 2019

ChromaDex Corporation and Subsidiaries

Consolidated Balance Sheets

December 31, 2018 and December 30, 2017

(In thousands, except per share data)

	Dec. 31, 2018	Dec. 30, 2017
Assets		
Current Assets		
Cash, including restricted cash of $0.2 million and $0, respectively	$22,616	$45,389
Trade receivables, net of allowances of $0.5 million and $0.7 million, respectively; Receivables from Related Party: $0.7 million and $1.0 million, respectively	4,359	5,338
Contract assets	56	-
Receivable held at escrow, net of allowance of $0.1 million	677	-
Inventories	8,249	5,796
Prepaid expenses and other assets	577	655
Total current assets	36,534	57,178
Leasehold Improvements and Equipment, net	3,585	2,872
Deposits	243	272
Receivable Held at Escrow	-	750
Intangible Assets, net	1,547	1,652
Other Long-term Assets	323	-
Total assets	$42,232	$62,724
Liabilities and Stockholders' Equity		
Current Liabilities		
Accounts payable	$9,548	$3,719
Accrued expenses	4,313	3,645

Current maturities of capital lease obligations	173	196
Contract liabilities and customer deposits	275	314
Deferred rent, current	131	114
Due to officer	-	100
Total current liabilities	14,440	8,088
Capital Lease Obligations, Less Current Maturities	137	310
Deferred Rent, Less Current	477	492
Total liabilities	15,054	8,890
Commitments and Contingencies		
Stockholders' Equity		
Common stock, $.001 par value; authorized 150,000 shares; issued and outstanding December 31, 2018 55,089 shares and December 30, 2017 54,697 shares	55	55
Additional paid-in capital	116,876	110,380
Accumulated deficit	(89,753)	(56,601)
Total stockholders' equity	27,178	53,834
Total liabilities and stockholders' equity	$42,232	$62,724

See Notes to Consolidated Financial Statements.

ChromaDex Corporation and Subsidiaries

Consolidated Statements of Operations

Years Ended December 31, 2018 and December 30, 2017

(In thousands, except per share data)

	2018	2017
Sales, net	$31,557	$21,201
Cost of sales	15,502	10,724
Gross profit	16,055	10,477
Operating expenses:		
Sales and marketing	16,537	4,459
Research and development	5,478	4,007
General and administrative	27,137	17,642
Other	75	746
Operating expenses	49,227	26,854
Operating loss	(33,172)	(16,377)
Nonoperating expense:		
Interest expense, net	(79)	(153)
Other	(65)	-
Nonoperating expenses	(144)	(153)
Loss from continuing operations	(33,316)	(16,530)
Loss from discontinued operations	-	(315)
Gain on sale of discontinued operations	-	5,467
Income from discontinued operations, net	-	5,152

Net loss	$(33,316)	$(11,378)
Basic and diluted earnings (loss) per common share:		
Loss from continuing operations	$(0.61)	$(0.37)
Earnings from discontinued operations	$-	$0.11
Basic and diluted loss per common share	$(0.61)	$(0.26)
Basic and diluted weighted average common shares outstanding	55,006	44,599

See Notes to Consolidated Financial Statements.

ChromaDex Corporation and Subsidiaries

Consolidated Statement of Stockholders' Equity

Years Ended December 31, 2018 and December 30, 2017

(In thousands)

	Common Stock		Additional	Accumulated	Total Stockholders'
	Shares	Amount	Paid-in Capital	Deficit	Equity
Balance, December 31, 2016	37,545	$37	$55,160	$(45,223)	$9,974
Issuance of common stock, net of offering costs of $1,420	15,593	16	47,579	-	47,595
Exercise of stock options	885	1	3,037	-	3,038
Vested restricted stock	674	1	(1)	-	-
Share-based compensation			4,605	-	4,605
Net loss	-	-	-	(11,378)	(11,378)
Balance, December 30, 2017	54,697	$55	$110,380	$(56,601)	$53,834
Adjustment to retained earnings: cumulative effect of initially applying ASC 606	-	-	-	164	164
Exercise of stock options	132	-	529	-	529
Repurchase of common stock	(75)	-	(404)	-	(404)

Vested restricted stock	2	-	-	-	-
Share-based compensation	333	-	6,371	-	6,371
Net loss	-	-	-	(33,316)	(33,316)
Balance, December 31, 2018	55,089	$55	$116,876	$(89,753)	$27,178

See Notes to Consolidated Financial Statements.

ChromaDex Corporation and Subsidiaries

Consolidated Statements of Cash Flows

Years Ended December 31, 2018 and December 30, 2017

(In thousands)

	2018	2017
Cash Flows From Operating Activities		
Net loss	$(33,316)	$(11,378)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation of leasehold improvements and equipment	607	510
Amortization of intangibles	235	206
Share-based compensation expense	6,371	4,605
Allowance for doubtful trade receivables	(132)	(411)
Gain from disposal of assets	-	(5,467)
Loss from disposal of equipment	1	5
Non-cash financing costs	70	121
Other Non-cash expense	65	-
Changes in operating assets and liabilities:		
Trade receivables	1,111	937
Inventories	(2,453)	2,177
Prepaid expenses and other assets	65	(296)
Accounts payable	5,829	(2,364)
Accrued expenses	668	1,472
Customer deposits and other	69	(68)
Deferred rent	2	180
Due to officer	(100)	(33)
Net cash used in operating activities	(20,908)	(9,804)
Cash Flows From Investing Activities		

Proceeds from disposal of assets, net of transaction costs	-	5,953
Purchases of leasehold improvements and equipment	(1,321)	(1,167)
Purchases of intangible assets	(131)	(184)
Investment in other long-term assets	(323)	-
Net cash (used in) provided by investing activities	(1,775)	4,602
Cash Flows From Financing Activities		
Proceeds from issuance of common stock, net of issuance costs	-	46,594
Proceeds from exercise of stock options	529	3,038
Repurchase of common stock	(404)	-
Payment of debt issuance costs	(19)	(75)
Principal payments on capital leases	(196)	(608)
Net cash (used in) provided by financing activities	(90)	48,949
Net increase (decrease) in cash	(22,773)	43,747
Cash Beginning of Year	45,389	1,642
Cash Ending of Year, including restricted cash $0.2 million for 2018	$22,616	$45,389
Supplemental Disclosures of Cash Flow Information		
Cash payments for interest	$41	$57
Supplemental Schedule of Noncash Operating Activity		
Adjustment to retained earnings - cumulative effect of initially applying ASC 606	$164	$-
Supplemental Schedule of Noncash Investing Activity		
Noncash consideration transferred for the acquisition of Healthspan Research LLC	$-	$1,187
Capital lease obligation incurred for the purchase of equipment	$-	$515
Receivable from disposal of assets held at escrow	$-	$750
Retirement of fully depreciated equipment - cost	$-	$57
Retirement of fully depreciated equipment - accumulated depreciation	$-	$(57)

See Notes to Consolidated Financial Statements.

Note 1.
Nature of Business and Liquidity

Nature of business: ChromaDex Corporation and its wholly owned subsidiaries, ChromaDex, Inc., Healthspan Research, LLC and ChromaDex Analytics, Inc. (collectively, the “Company” or, in the first person as “we” “us” and “our”) are a science-based integrated nutraceutical company devoted to improving the way people age. The Company's scientists partner with leading universities and research institutions worldwide to discover, develop and create products to deliver the full potential of NAD and identify and develop novel, science-based ingredients. Its flagship ingredient, NIAGEN® nicotinamide riboside, a precursor to NAD sold directly to consumers as TRU NIAGEN®, is backed with clinical and scientific research, as well as intellectual property protection. The Company also has analytical reference standards and services segment, which focuses on natural product fine chemicals (known as “phytochemicals”), chemistry services, and regulatory consulting.

Liquidity: The Company has incurred a net loss of approximately $33.3 million for the year ended December 31, 2018, and net loss of approximately $11.4 million for the year ended December 30, 2017. As of December 31, 2018, cash and cash equivalents totaled approximately $22.6 million, which includes restricted cash of approximately $0.2 million.

The Company anticipates that its current cash, cash equivalents and cash to be generated from operations will be sufficient to meet its projected operating plans through at least the next twelve months from the issuance date of this report. The Company may, however, seek additional capital within the next twelve months, both to meet its projected operating plans within the next twelve months and/or to fund its longer term strategic objectives.

Note 2.
Significant Accounting Policies

Significant accounting policies are as follows:

Basis of presentation: The financial statements and accompanying notes have been prepared on a consolidated basis and reflect the consolidated financial position of the Company and its wholly owned subsidiaries. All significant intercompany balances and transactions have been eliminated from these financial statements. The Company's fiscal year 2018 ended on December 31, 2018 and the fiscal year 2017 ended on December 30, 2017.

Change in Fiscal Year: On January 25, 2018, the Board of Directors of ChromaDex Corporation approved a resolution to change the Company’s fiscal year from a 52/53-week fiscal year that ends on the Saturday closest to December 31 to a calendar year. As such, the Company’s 2018 fiscal year was extended from December 29, 2018 to December 31, 2018, with subsequent fiscal years beginning on January 1 and ending on December 31 of each year. Effective fiscal year 2018, the Company’s quarterly results are for the periods ending March 31, June 30, September 30 and December 31.

Adopted Accounting Standards in Fiscal 2018:

Revenue from Contracts with Customers, Topic 606: Effective the first day of fiscal year 2018, the Company adopted Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers: Topic 606 ("ASC 606"). ASC 606 supersedes nearly all existing revenue recognition guidance under U.S. Generally Accepted Accounting Principles ("GAAP"). The core principle of ASC 606 is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services. ASC 606 defines a five step process to achieve this core principle and, in doing so, it is possible more judgment and estimates may be required within the revenue recognition process than required under previous GAAP including

identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation.

The Company adopted ASC 606 using the modified retrospective transition method. Under this method, the Company elected to apply the modified retrospective method to contracts that are not complete as of the first day of fiscal year 2018. The adoption of ASC 606 resulted in an adjustment to opening retained earnings of $164,000. See Note 10, Contract Assets and Contract Liabilities for additional disclosure regarding the opening balance adjustment.

For the year ended December 31, 2018, approximately $30.6 million of the Company's total revenue of $31.6 million, or 97% of the total revenue, was as a result of shipping physical goods to the customers. For such revenue streams, the performance obligations are typically satisfied upon shipment of physical goods. Typical payment terms for such revenue streams are upon shipment or net 30 to 60 days. We require customers that are not creditworthy to make advance payments prior to shipment. The Company is taking the practical expedient on not adjusting the promised amount of consideration for the effects of a significant financing component, since the Company expects the customer to pay for the transferred goods within one year. There are obligations for the Company to accept returns and provide refunds for the goods that are shipped, if the customer claims that the Company has not fully fulfilled the performance obligations. Returns, refunds and allowances related to sales including a reserve for estimated variable consideration for the returns, refunds and allowances are recorded as reduction of revenue. The Company uses historical rates when estimating returns, refunds and allowances. The Company also elected to account for shipping and handling activities performed as cost of sales under a fulfillment cost and any fee received for shipping and handling as part of the transaction price and recognize revenue when control of the good transfers. The related fulfillment costs are accrued at the time of revenue recognition.

The Company also has revenue streams for providing consulting services to its clients. For the year ended December 31, 2018, our revenue from these streams was approximately $1.0 million, or 3% of the total revenue. For these consulting services, the performance obligations are typically satisfied over time as the consulting services are performed. Payment terms for these projects vary based on the nature of the projects, from advance payment at the beginning of the project to net 30 days from the completion of the project. The Company typically requires advance payments from customers for large-scale consulting projects that have a contract duration of 30 days or longer. The original expected duration of these contracts are typically one year or less. As such, the Company is applying an optional exemption from ASC 606 to not make the disclosures related to the remaining performance obligations. The Company is also taking the practical expedient on not adjusting the promised amount of consideration for the effects of a significant financing component, since the Company expects the customer to pay for the transferred services within one year. If contracts are terminated prior to the completion, the Company typically has a right to bill the customer for all services that have been performed through the termination date.

These consulting projects typically have one common performance obligation for our clients, thus the Company typically does not allocate the transaction price over many performance obligations. Some of these consulting projects require measurement of the progress toward complete satisfaction of the performance obligation. The Company uses a cost-to-cost method to measure such progress, which is an input method that recognizes revenue on the bases of direct measurements for the costs incurred to date in relation to the total estimated costs to complete the performance obligation. Any costs that do not depict the Company's performance in transferring control of the consulting services to the customer have been excluded.

Improvements to Non-employee Share-Based Payment Accounting: In June 2018, the FASB issued ASU 2018-07, “Compensation – Stock Compensation (Topic 718): Improvements to Non-employee Share-Based Payment Accounting,” which expands the scope of Topic 718 to include all share-based payment transactions for acquiring goods and services from non-employees. This pronouncement is effective for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2018, with early adoption permitted. The Company early-adopted the amendments in this ASU effective as of October 1, 2018. The adoption of ASU 2017-08 did not have a material effect on our consolidated financial statements.

SEC Disclosure Update and Simplification: In August 2018, the SEC adopted the final rule under SEC Release No. 33-10532, Disclosure Update and Simplification, amending certain disclosure requirements that were redundant, duplicative, overlapping, outdated or superseded. In addition, the amendments expanded the disclosure requirements on the analysis of stockholders' equity for interim financial statements. Under the amendments, an analysis of changes in each caption of stockholders' equity presented in the balance sheet must be provided in a note or separate statement.

The analysis should present a reconciliation of the beginning balance to the ending balance of each period for which a statement of comprehensive income is required to be filed. This final rule was effective on November 5, 2018. The adoption of this guidance did not have a material effect on our consolidated financial statements.

Restricted Cash: In November 2016, ASU 2016-18 was issued related to the inclusion of restricted cash in the statement of cash flows. The new guidance requires that a statement of cash flows present the change during the period in the total of cash, cash equivalents and amounts generally described as restricted cash or restricted cash equivalents. The adoption of this guidance results in the inclusion of the restricted cash balances within the overall cash balance and removal of the changes in restricted cash activity. The Company adopted ASU 2016-18 effective January 1, 2018. The adoption of ASU 2016-18 did not have a material impact on our consolidated financial statements.

Use of accounting estimates: The preparation of financial statements requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Revenue recognition: The Company recognizes sales and the related cost of sales when the performance obligations are satisfied. The performance obligations are typically satisfied upon shipment of physical goods or as the services are performed over time. In addition to the satisfaction of the performance obligations, the following conditions are required for revenue recognition: an arrangement exists, there is a fixed price, and collectability is reasonably assured. Discounts, returns and allowances related to sales, including an estimated reserve for the returns and allowances, are recorded as reduction of revenue.

With the adoption of ASC 606 as of January 1, 2018, the Company elected to account for shipping and handling activities performed as cost of sales under a fulfillment cost and any fee received for shipping and handling as part of the transaction price and recognize revenue when control of the good transfers. For fiscal year 2017, shipping and handling fees billed to the customers and the cost of shipping and handling fees billed to customers are both included in net sales. Shipping and handling fees billed to customers and the associated cost included in net sales for the years ending December 31, 2018 and December 30, 2017 are as follows:

(In thousands)	2018	2017
Shipping and handling fees billed	$287	$137
Cost of shipping and handling fees billed	-	$185

Taxes collected from customers and remitted to governmental authorities are excluded from revenue, which is presented on a net basis in the statement of operations.

Restricted cash: The Company classifies cash as restricted if the withdrawal or its usage is restricted for more than three months. In connection with a lease amendment entered on November 9, 2018 to lease additional office space located in Los Angeles, California through October 2021, the Company delivered a letter of credit issued by a bank to the landlord in the amount of $152,000. The issuing bank required a collateral for the letter of credit and the Company made a deposit covering the letter of credit amount with the issuing bank. The letter of credit expires on October 18, 2019.

Trade accounts receivable, net: Trade accounts receivable are carried at original invoice amount less an estimate made for doubtful receivables based on monthly and quarterly reviews of all outstanding amounts. Management determines the allowance for doubtful accounts by identifying troubled accounts and by using historical experience applied to an aging of accounts. The allowance amounts for the periods ended December 31, 2018 and December 30, 2017 are as follows:

(In thousands)

	2018	2017
Allowances Related to		
Elysium Health	$500	$500
Other Allowances	37	169
	$537	$669

-54-

Trade accounts receivable are written off when deemed uncollectible. Recoveries of trade accounts receivable previously written off are recorded when received.

Credit risk: Financial instruments that potentially subject us to concentrations of credit risk consist primarily of cash and cash equivalents and trade receivables. For cash and cash equivalents, the Company has them either in a form of bank deposits or highly liquid debt instruments in investment-grade pursuant to the Company's investment policy. Accounts at each institution are insured by the Federal Deposit Insurance Corporation ("FDIC") up to $250,000. As of December 31, 2018, we held a total deposit of approximately $20.1 million with one institution and $2.3 million with another institution which exceeded the FDIC limit. We also have $0.7 million escrow receivable held at a different institution. We, however, believe we have very little credit risk exposure for our cash and cash equivalents. Our trade receivables are derived from sales to our customers. We assess credit risk of our customers through quantitative and qualitative analysis. From this analysis, we establish credit limits and manage the risk exposure. We, however, incur credit losses due to bankruptcy or other failure of the customer to pay.

Inventories: Inventories are comprised of work in process and finished goods. They are stated at the lower of cost, determined by the first-in, first-out method, or net realizable value. The inventory on the balance sheet is recorded net of valuation allowances. Labor and overhead has been added to inventory that was manufactured or characterized by the Company. The amounts of major classes of inventory for the periods ended December 31, 2018 and December 30, 2017 are as follows:

(In thousands)	2018	2017
Bulk ingredients	$2,385	$4,159
Reference standards	848	1,027
Consumer Products - Finished Goods	2,450	503
Consumer Products - Work in Process	2,794	249
	8,477	5,938
Less valuation allowance	228	142
	$8,249	$5,796

Our normal operating cycle for reference standards is currently longer than one year. The Company regularly reviews inventories on hand and reduces the carrying value for slow-moving and obsolete inventory, inventory not meeting quality standards and inventory subject to expiration. The reduction of the carrying value for slow-moving and obsolete inventory is based on current estimates of future product demand, market conditions and related management judgment. Any significant unanticipated changes in future product demand or market conditions that vary from current expectations could have an impact on the value of inventories.

Intangible assets: Intangible assets include licensing rights and are accounted for based on the fair value of consideration given or the fair value of the net assets acquired, whichever is more reliable. Intangible assets with finite useful lives are amortized using the straight-line method over a period of 10 years, or, for licensed patent rights, the remaining term of the patents underlying licensing rights (considered to be the remaining useful life of the license), whichever is shorter. The useful lives of subsequent milestone payments that are capitalized are the remaining useful life of the initial licensing payment that was capitalized.

Leasehold improvements and equipment, net: Leasehold improvements and equipment are carried at cost and depreciated on the straight-line method over the lesser of the estimated useful life of each asset or lease term. Leasehold improvements and equipment are comprised of leasehold improvements, laboratory equipment, furniture and fixtures, and computer equipment. Depreciation on equipment under capital lease is included with depreciation on owned assets. Maintenance and repairs are charged to operating expenses as they are incurred. Improvements and betterments, which extend the lives of the assets, are capitalized.

Long-lived assets are reviewed for impairment on a periodic basis and when changes in circumstances indicate the possibility that the carrying amount may not be recoverable. Long-lived assets are grouped at the lowest level for which identifiable cash flows are largely independent of the cash flows of other assets. If the forecast of undiscounted future cash flows is less than the carrying amount of the assets, an impairment charge would be recognized to reduce the carrying value of the assets to fair value. If a possible impairment is identified, the asset group's fair value is measured relying primarily on a discounted cash flow methodology.

Customer deposits: Customer deposits represent cash received from customers in advance of product shipment or delivery of services.

Income taxes: Deferred taxes are provided on a liability method whereby deferred tax assets are recognized for deductible temporary differences and operating loss and tax credit carryforwards and deferred liabilities are recognized for taxable temporary differences. Temporary differences are the differences between the reported amounts of assets and liabilities and their tax bases. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized. Deferred tax assets and liabilities are adjusted for the effects of changes in tax laws and rates on the date of enactment.

The Company has not recorded a reserve for any tax positions for which the ultimate deductibility is highly certain but for which there is uncertainty about the timing of such deductibility. The Company files tax returns in all appropriate jurisdictions, which include a federal tax return and various state tax returns. Open tax years for these jurisdictions are 2015 to 2018, which statutes expire in 2019 to 2022, respectively. When and if applicable, potential interest and penalty costs are accrued as incurred, with expenses recognized in general and administrative expenses in the statements of operations. As of December 31, 2018, the Company has no liability for unrecognized tax benefits.

Research and development costs: Research and development costs consist of direct and indirect costs associated with the development of the Company's technologies. These costs are expensed as incurred.

Advertising: The Company expenses the production costs of advertising the first time the advertising takes place. Advertising expense for the periods ended December 31, 2018 and December 30, 2017 were approximately $8,764,000 and $1,914,000, respectively.

Share-based compensation: The Company has an Equity Incentive Plan under which the Board of Directors may grant restricted stock or stock options to employees and non-employees. Effective October 1, 2018, the Company adopted ASU 2018-07, by which the accounting for share-based payments to non-employees and employees is substantially aligned. The ASU supersedes Subtopic 505-50, Equity - Equity-Based Payments to Non-Employees. Consistent with the accounting requirement for employee share-based payment awards, non-employee share-based payment awards now within the scope of Topic 718 are measured at grant-date fair value of the equity instruments that the Company is obligated to issue when the good has been delivered or the service has been rendered and any other conditions necessary to earn the right to benefit from the instruments have been satisfied. There was no cumulative effect of the adoption of this standard.

Share-based compensation cost is recorded for all option grants and awards of non-vested stock based on the grant date fair value of the award, and is recognized over the service period required for the award. Prior to October 1, 2018, share-based compensation cost for non-employees was remeasured over the vesting term as earned.

The fair value of the Company’s stock options is estimated at the date of grant using the Black-Scholes based option valuation model. The volatility assumption is based on the historical volatility of the Company's common stock. The dividend yield assumption is based on the Company’s history and expectation of future dividend payouts on the common stock. The risk-free interest rate is based on the implied yield available on U.S. treasury zero-coupon issues with an equivalent remaining term. For the expected term, the Company uses SEC Staff Accounting Bulletin No. 107 simplified method for “plain vanilla” options with following characteristics: (i) the share options are granted at the market price on the grant date; (ii) exercisability is conditional on performing service through the vesting date on most options; (iii) if an employee terminates service prior to vesting, the employee would forfeit the share options; (iv) if an employee terminates service after vesting, the employee would have 30 to 90 days to exercise the share options; and (v) the share options are nontransferable and nonhedgeable.

Market conditions that affect vesting of stock options are considered in the grant-date fair value. The issues surrounding the valuation for such awards can be complex and consideration needs to be given for how the market condition should be incorporated into the valuation of the award. The Company considers using other valuation techniques, such as Monte Carlo simulations based on a lattice approach, to value awards with market conditions.

The Company recognizes compensation expense over the requisite service period using the straight-line method for option grants without performance conditions. For stock options that have both service and performance conditions, the Company recognizes compensation expense using the graded attribution method. Compensation expense for stock options with performance conditions is recognized only for those awards expected to vest.

Effective January 1, 2017, the Company recognizes forfeitures when they occur.

From time to time, the Company awards shares of its common stock to non-employees for services provided or to be provided. The fair value of the awards are measured either based on the fair market value of stock at the date of grant or the value of the services provided, based on which is more reliably measurable. Since these stock awards are fully vested and non-forfeitable, upon issuance the measurement date for the award is usually reached on the date of the award.

Fair Value Measurement: The Company follows the provisions of the accounting standard which defines fair value, establishes a framework for measuring fair value and enhances fair value measurement disclosure. Under these provisions, fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (i.e., the “exit price”) in an orderly transaction between market participants at the measurement date.

The standard establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use on unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing the asset or liability developed based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company’s assumptions about the assumptions market participants would use in pricing the asset or liability developed based on the best information available in the circumstances. The hierarchy is described below:

Level 1: Quoted prices (unadjusted) in active markets that are accessible at the measurement date for assets or liabilities. The fair value hierarchy gives the highest priority to Level 1 inputs.
Level 2: Observable prices that are based on inputs not quoted on active markets, but corroborated by market data.
Level 3: Unobservable inputs are used when little or no market data is available. The fair value hierarchy gives the lowest priority to Level 3 inputs.

Financial instruments: The estimated fair value of financial instruments has been determined based on the Company’s assessment of available market information and appropriate valuation methodologies. The fair value of the Company’s

financial instruments that are included in current assets and current liabilities approximates their carrying value due to their short-term nature.

The carrying amounts reported in the balance sheet for capital lease obligations are present values of the obligations, excluding the interest portion.

Recent accounting standards: In February 2016, the FASB issued ASU 2016-02, Leases (Topic 842). ASU 2016-02 requires that a lessee recognize the assets and liabilities that arise from operating leases. A lessee should recognize in the statement of financial position a liability to make lease payments (the lease liability) and a right-of-use asset representing its right to use the underlying asset for the lease term. For leases with a term of 12 months or less, a lessee is permitted to make an accounting policy election by class of underlying asset not to recognize lease assets and lease liabilities. In transition, lessees and lessors are required to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. Public business entities should apply the amendments in ASU 2016-02 for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early application is permitted for all public business entities and all nonpublic business entities upon issuance. We are currently evaluating the impact of our pending adoption of ASU 2016-02 on our consolidated financial statements.

Note 3.
Loss Per Share Applicable to Common Stockholders

The following table sets forth the computations of loss per share amounts applicable to common stockholders for the years ended December 31, 2018 and December 30, 2017.

	Years Ended	
(In thousands, except per share data)	2018	2017
Net loss	$(33,316)	$(11,378)
Basic and diluted loss per common share	$(0.61)	$(0.26)
Basic and diluted weighted average common shares outstanding (1):	55,006	44,599
Potentially dilutive securities (2):		
Stock options	9,089	6,534
Warrants	204	470

(1) Includes approximately 0.2 million and 0.5 million nonvested restricted stock for the years 2018 and 2017, respectively, which are participating securities that feature voting and dividend rights.

(2) Excluded from the computation of loss per share as their impact is antidilutive.

Note 4.
Intangible Assets

Intangible assets consisted of the following:

(In thousands)	2018	2017	Weighted Average Total Amortization Period
Healthspan Research LLC Acquisition (See Note 9)	$1,346	$1,346	10 years
License agreements and other	1,625	1,494	9 years
Less accumulated depreciation	(1,424)	(1,189)	
	$1,547	$1,651	

Amortization expenses on amortizable intangible assets included in the consolidated statement of operations for the years ended December 31, 2018 and December 30, 2017 were approximately $235,000 and $206,000, respectively.

Estimated aggregate amortization expense for each of the next five years is as follows:

(In thousands) Years ending December:	
2019	$246
2020	241
2021	222
2022	185
2023	156
Thereafter	497
	$1,547

Note 5.
Leasehold Improvements and Equipment, Net

Leasehold improvements and equipment consisted of the following:

(In thousands)	2018	2017	Useful Life
Laboratory equipment	$2,755	$1,869	10 years
Leasehold improvements	2,127	1,699	Lesser of lease term or estimated useful life
Computer equipment	604	511	3 to 5 years
Furniture and fixtures	120	90	7 years
Office equipment	23	18	10 years
Construction in progress	7	131	

	5,636	4,318
Less accumulated depreciation	2,051	1,446
	$3,585	$2,872

Depreciation expenses on leasehold improvements and equipment included in the consolidated statement of operations for the years ended December 31, 2018 and December 30, 2017 were approximately $607,000 and $510,000, respectively.

The Company leases equipment under capitalized lease obligations with a total cost of approximately $871,000 and $871,000 and accumulated amortization of $213,000 and $126,000 as of December 31, 2018 and December 30, 2017, respectively.

Note 6.
Capitalized Lease Obligations

Minimum future lease payments under capital leases as of December 31, 2018, are as follows:

(In thousands) Year ending December:	
2019	$196
2020	126
2021	18
Total minimum lease payments	340
Less amount representing interest at a rate of approximately 9.9% per year	29
Present value of net minimum lease payments	310
Less current portion	173
Long-term obligations under capital leases	$137

Interest expenses related to capital leases were approximately $41,000 and $57,000 for the years ended December 31, 2018 and December 30, 2017, respectively.

Note 7.
Line of Credit

On November 4, 2016, the Company entered into a business financing agreement (“Financing Agreement”) with Western Alliance Bank (“Western Alliance”), in order to establish a formula based revolving credit line pursuant to which the Company may borrow an aggregate principal amount of up to $5,000,000, subject to the terms and conditions of the Financing Agreement. In June 2018, the Company notified Western Alliance that it did not intend to draw from the line of credit established by the Financing Agreement. The Company previously did not have any outstanding loan payable from this line of credit arrangement.

Debt Issuance Costs

The Company incurred debt issuance costs of approximately $272,000 in connection with this line of credit arrangement and had an unamortized balance of approximately $65,000 as of the termination date. For the line of credit arrangement, the Company elected a policy to keep the debt issuance costs as an asset, regardless of whether an amount is drawn. The unamortized deferred asset was expensed immediately on the termination date as other non-operating expense.

Note 8.
Income Taxes

At December 31, 2018 and December 30, 2017, the Company maintained a full valuation allowance against the entire deferred income tax balance which resulted in an effective tax rates of 0% for both years 2018 and 2017. At December 31, 2018 and December 30, 2017, we recorded a valuation allowance of $21.9 million and $12.9 million, respectively. The valuation allowance increased by $9.0 million during 2018.

A reconciliation of income taxes computed at the statutory Federal income tax rate to income taxes as reflected in the financial statements is summarized as follows:

	2018	2017
Federal income tax expense at statutory rate	(21.0)%	(34.0)%
State income tax, net of federal benefit	(6.6)%	(5.3)%
Permanent differences	1.1%	7.6%
Changes of state net operating losses	(0.5)%	1.3%
Change in stock options and restricted stock	0.0%	(1.3)%
Change in valuation allowance	27.1%	(23.1)%
Remeasurement of deferred taxes asset / liability	0.0%	53.4%
Other	(0.1)%	1.4%
Effective tax rate	0.0%	0.0%

On December 22, 2017, the Tax Cuts and Jobs Act was signed into law, which included, among other things, a reduction of the federal corporate income tax rate to 21%. Under ASC 740, Accounting for Income Taxes, the Company is required to recognize the effects of changes in tax laws and rates on deferred tax assets and liabilities and the retroactive effects of changes in tax laws in the period in which the new legislation is enacted. In 2017, the Company's gross deferred tax assets have been revalued from 34% to 21% and as a result, the deferred tax assets of approximately $19.1 million have been revalued to approximately $13.0 million with a corresponding decrease to the Company's valuation allowance.

The deferred income tax assets and liabilities consisted of the following components as of December 31, 2018 and December 30, 2017:

(In thousands)	2018	2017
Deferred tax assets:		
Net operating loss carryforward	$17,957	$9,963
Stock options and restricted stock	2,654	1,873
Inventory reserve	222	143
Allowance for doubtful accounts	168	183
Accrued expenses	831	674
Deferred revenue	19	19
Leasehold improvements and equipment	4	-
Intangibles	46	27
Deferred rent	168	166
	22,069	13,048

Less valuation allowance	(21,932)	(12,904)
	137	144
Deferred tax liabilities:		
Leasehold improvements and equipment	-	(9)
Prepaid expenses	(137)	(135)
	(137)	(144)
	$-	$-

The Company has tax net operating loss carryforwards for federal and state income tax purposes of approximately $68.3 million and $58.9 million, respectively which begin to expire in the year ending December 31, 2023 and 2022, respectively. The federal net operating loss carryforward of $28.3 million from 2018 can be carried forward indefinitely but is limited to 80% of taxable income.

Under the Internal Revenue Code, certain ownership changes may subject the Company to annual limitations on the utilization of its net operating loss carryforward. The Company has determined that the stock issued in the year of 2018 did not create a change in control under the Internal Revenue Code Section 382. The Company will continue to analyze the potential impact of any additional transactions undertaken upon the utilization of the net operating losses on a go forward basis.

The Company is currently not under examination by the Internal Revenue Service or any other jurisdictions for any tax years. The Company has not identified any uncertain tax positions requiring a reserve as of December 31, 2018 and December 30, 2017.

Note 9.
Related Party Transactions

Sale of consumer products

	Net sales Year ended Dec. 31, 2018	Net sales Year ended Dec. 30, 2017	Trade receivable at Dec. 31, 2018	Trade receivable at Dec. 30, 2017
A.S. Watson Group	$2.9 million	$4.1 million	$0.7 million	$1.0 million
Horizon Ventures	$0.4 million	-	-	-
Total	$3.3 million	$4.1 million	$0.7 million	$1.0 million

*A.S. Watson Group and Horizon Ventures are related parties through common ownership of an enterprise that beneficially owns more than 10% of the common stock of the Company.

Asset acquisition

On March 12, 2017, the Company acquired all of the outstanding equity interests of Healthspan from Robert Fried, Jeffrey Allen and Dr. Charles Brenner (the "Sellers"). Robert Fried is a member of the Board of Directors ("Board") of the Company, a position he has held since July 2015.

Upon the closing of, and as consideration for, the acquisition, the Company issued an aggregate of 367,648 shares of the Company’s common stock to the Sellers. The fair value of these shares was approximately $1.0 million based on the closing price of $2.72 per share on March 12, 2017. Mr. Fried continues to serve as a member of the Board and is the Chief Executive Officer of the Company.

Healthspan was formed in August 2015 to offer and sell finished bottle product TRU NIAGEN® directly to consumers through internet-based selling platforms. TRU NIAGEN® is currently the Company's leading product. Prior to the acquisition, the Company has supplied certain amount of NIAGEN® to Healthspan as a raw material inventory in exchange for a 4% equity interest in Healthspan. An additional 5% equity interest was received for granting certain exclusive rights to resell NIAGEN® prior to the total acquisition on March 12, 2017.

This transaction was accounted for as an acquisition of assets. An intangible asset of approximately $1.35 million was recorded as a result of this acquisition, which is the difference of consideration transferred and the net amount of assets acquired and liabilities assumed.

(A) Consideration transferred		(B) Net amount of assets and liabilities	
	Fair value	Assets acquired	Fair value
Common Stock	$1,000,000	Cash and cash equivalents	$19,000
Transaction costs	178,000	Trade receivables	11,000
Previously held equity interest	20,000	Inventory	61,000
	$1,198,000	Liabilities assumed	
		Due to officer	(132,000)
		Accounts payable	(74,000)
		Credit card payable	(30,000)
		Other accrued expenses	(3,000)
Consumer product business model, intangible asset (A) -(B)	$1,346,000	Net assets	$(148,000)

The acquired intangible asset is considered to have a useful life of 10 years. The expense is amortized using the straight-line method over the useful life and the Company recognized an amortization expense of approximately $135,000 and $109,000 for the years ended December 31, 2018 and December 30, 2017, respectively.

In cancellation of a loan owed by Healthspan to Mr. Fried prior to the acquisition, the Company repaid $32,500 to Mr. Fried on March 13, 2017 and also repaid $100,000 on March 9, 2018. No interest was paid for the $100,000 repaid on March 9, 2018.

Note 10.
Contract Assets and Contract Liabilities

Our contract assets consist of unbilled amounts typically resulting from sales under contracts when the cost-to-cost method of revenue recognition is utilized and revenue recognized exceeds the amount billed to the customer. Our contract liabilities consist of advance payments and billings in excess of costs incurred and deferred revenue.

Net contract assets (liabilities) consisted of the following:

(In thousands)	Dec. 30, 2017	Opening Balance Adjustment	FY 2018 Opening Balance	Reductions(1)	Additions(2)	Dec. 31, 2018
Contract Assets	$-	$56	$56	$(314)	$314	$56
Contract Liabilities - Open Projects (3)	186	(108)	78	(154)	177	101
Contract Liabilities - Other Customer Deposits (4)	128	-	128	(125)	171	174
Net Contract Assets (Liabilities)	$(314)	$164	$(150)	$(35)	$(34)	$(219)

(1) For contract assets, the amount represents amount billed to the customer.

For contract liabilities, the amount represents reductions for revenue recognized.

(2) For contract assets, the amount represents revenue recognized during the period using the cost-to-cost method.

For contract liabilities, the amount represents advance payments received during the period.

(3) Contract liablities from ongoing consulting projects.

(4) Other customer deposts include payments received for orders not fulfilled and other advance payments.

In the year ended December 31, 2018, we recognized revenue of approximately $95,000 related to our adjusted contract liabilities at the beginning of the fiscal year 2018.

Note 11.
Discontinued Operations

On September 5, 2017, the Company completed the sale of its operating assets that were used with the Company's quality verification program testing and analytical chemistry business for food and food related products (the "Lab

Business") to Covance Laboratories Inc. ("Covance") (the “Lab Business Sale”). In consideration of the Lab Business Sale, the Company received $6.75 million from Covance and additional cash consideration of $0.8 million is currently held in escrow to satisfy any potential indemnification claims by Covance. In 2017, the Company recorded a gain of approximately $5.5 million from the disposal.

(In thousands)

(A) Consideration received

	Amount
Cash payment	$6,750
Cash payment held in escrow (1)	750
Additional earnout payment	-
	$7,500

(B) Selling costs

	Amount
Legal	$428
Financial consulting	250
Other	118
	$796

Gain from disposal (A) - (B) - (C) $5,468

(C) Carrying value of the Lab Business

Assets disposed	Carrying value
Leasehold improvements and equipment, net	$1,427
Prepaid expenses	11
Deposits	20
Liabilities disposed	
Deferred revenue	(7)
Deferred rent	(215)
Net assets	$1,236

(1) $750,000 held in escrow to satisfy any indemnification claims.

The sale of the Lab Business qualified as a discontinued operation as the sale represented a strategic shift that had a major effect on operations and financial results.

The results of operations from the discontinued operations for the years ended December 31, 2018 and December 30, 2017 are as follows:

Statements of Operations - Discontinued operations

Years Ended December 31, 2018 and December 30, 2017

(In thousands)

	2018	2017
Sales	$-	$2,821
Cost of sales	-	2,479
Gross profit	-	342
Operating expenses:		
Sales and marketing	-	482
General and administrative	-	150
Operating expenses	-	632
Operating loss	-	(290)
Nonoperating expenses:		
Interest expense, net	-	(25)
Nonoperating expenses	-	(25)
Loss from discontinued operations	$-	$(315)

Depreciation, capital expenditures and significant noncash investing activities of the discontinued operations for the years ended December 31, 2018 and December 30, 2017 are as follows:

Discontinued operations
Depreciation, amortization, captial expenditures and significant noncash operating and investing activities
Years Ended December 31, 2018 and December 30, 2017
(In thousands)

	2018	2017

Depreciation	$-	$169
Purchase of leasehod improvements and equipment	$-	$111
Noncash investing activity		
Retirement of fully depreciated equipment - cost	$-	$56
Retirement of fully depreciated equipment - accumulated depreciation	$-	$(56)

Note 12.
Share-Based Compensation

Stock Option Plans

At the discretion of the Company's compensation committee (the "Compensation Committee"), and with the approval of the Company's board of directors (the "Board of Directors"), the Company may grant options to purchase the Company's common stock to certain individuals from time to time. Management and the Compensation Committee determine the terms of awards which include the exercise price, vesting conditions and expiration dates at the time of grant. Expiration dates for stock options are not to exceed 10 years from their date of issuance.

On June 20, 2017, the stockholders of the Company approved the ChromaDex Corporation 2017 Equity Incentive Plan (the "2017 Plan"). The Company's Board of Directors amended the 2017 Plan in January 2018 and the stockholders of the Company approved an amendment to the 2017 plan on June 22, 2018. The 2017 Plan is the successor to the ChromaDex Corporation Second Amended and Restated 2007 Equity Incentive Plan (the "2007 Plan"). As of December 31, 2018, under the 2017 Plan, the Company is authorized to issue stock options that total no more than the sum of (i) 9,000,000 new shares, (ii) approximately 384,000 unallocated shares remaining available for the grant of new awards under the 2007 Plan, (iii) any returning shares from the 2007 Plan or the 2017 Plan, such as forfeited, cancelled, or expired shares and (iv) 500,000 shares pursuant to an inducement award. The remaining number of shares available for issuance under the 2017 Plan totaled approximately 4.9 million shares at December 31, 2018.

General Vesting Conditions

The stock option awards generally vest ratably over a three to four-year period following grant date after a passage of time. However, some stock option awards are market or performance based and vest based on certain triggering events established by the Compensation Committee, subject to approval by the Board of Directors.

The fair value of the Company's stock options that are not market based was estimated at the date of grant using the Black-Scholes based option valuation model. The table below outlines the weighted average assumptions for options granted during the years ended December 31, 2018 and December 30, 2017.

Year Ended December	2018	2017
Expected term	6 years	6 years
Volatility	69%	71%
Dividend Yield	0%	0%
Risk-free rate	3%	2%

1) Service Period Based Stock Options

The majority of options granted by the Company are comprised of service based options. These options vest ratably over a defined period following grant date after a passage of a service period.

The following table summarizes service period based stock options activity (in thousands except per share data and remaining contractual term):

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term	Weighted Average Fair Value	Aggregate Intrinsic Value
Outstanding at December 31, 2016	5,144	$3.49	6.17		
Options Granted	1,285	3.48	10.00	$2.31	
Options Exercised	(885)	3.43			$2,479
Options Expired	(3)	4.50			
Options Forfeited	(74)	3.88			
Outstanding at December 30, 2017	5,467	$3.49	6.41		$13,101
Options Granted	3,071	4.29	10.00	$2.74	
Options Exercised	(131)	4.02			$109
Options Expired	(245)	4.50			
Options Forfeited	(139)	4.21			
Outstanding at December 31, 2018	8,023	$3.75	7.11		$2,207*
Exercisable at December 31, 2018	4,351	$3.47	5.32		$1,802*

*The aggregate intrinsic values in the table above are based on the Company’s closing stock price of $3.43 on the last day of business for the year ended December 31, 2018.

2) Performance Based Stock Options

The Company also grants stock option awards that are performance based and vest based on the achievement of certain criteria established from time to time by the Compensation Committee. If these performance criteria are not met, the compensation expenses are not recognized and the expenses that have been recognized will be reversed.

The following table summarizes performance based stock options activity (in thousands except per share data and remaining contractual term):

	Number of Shares	Weighted Average Exercise Price	Remaining Contractual Term	Fair Value	Aggregate Intrinsic Value
Outstanding at December 31, 2016	67	$1.89	6.08		
Options Granted	-	-			
Options Exercised	-	-			
Options Forfeited	-	-			
Outstanding at December 30, 2017	67	$1.89	5.08		
Options Granted	-	-			
Options Exercised	-	-			
Options Forfeited	-	-			
Outstanding at December 31, 2018	67	$1.89	4.08		$103
Exercisable at December 31, 2018	67	$1.89	4.08		$103

The aggregate intrinsic value in the table above are, based on the Company's closing stock price of $3.43 on the last day of business for the period ended December 31, 2018.

3) Market Based Stock Options

The Company also grants stock option awards that are market based which have vesting conditions associated with a service condition as well as performance of the Company's stock price. The following table summarizes market based stock options activity (in thousands except per share data and remaining contractual term):

		Weighted Average			
	Number of Shares	Exercise Price	Remaining Contractual Term	Fair Value	Aggregate Intrinsic Value
Outstanding at December 31, 2016	-	$-	-		
Options Granted	1,000	4.24	10.00	$3.04	
Options Exercised	-	-			
Options Forfeited	-	-			
Outstanding at December 30, 2017	1,000	$4.24	9.24		
Options Granted	-	-			
Options Exercised	-	-			
Options Forfeited	-	-			
Outstanding at December 31, 2018	1,000	$4.24	8.24		$0
Exercisable at December 31, 2018	389	$4.24	8.24		$0

The aggregate intrinsic value in the table above are, based on the Company's closing stock price of $3.43 on the last day of business for the period ended December 31, 2018.

The fair value of options granted during the period ended December 30, 2017 was measured using Monte Carlo simulations based on a lattice approach with following assumptions:

Volatility:	67%
Contractual Term:	10 years
Risk Free Rate:	2.4%
Cost of Equity:	15.7%

For the contractual term, we are using 10 years as this is not a "plain vanilla" option. SEC Staff Accounting Bulletin No. 107 simplified method for estimating the expected term can be only used if the option is a "plain vanilla" option.

As of December 31, 2018, there was approximately $9.6 million of total unrecognized compensation expense related to non-vested share-based compensation arrangements granted under the plans for employee stock options. That cost is expected to be recognized over a weighted average period of 2.0 years.

Restricted Stock Awards

Restricted stock awards granted by the Company to employees have vesting conditions that are unique to each award.

The following table summarizes activity of restricted stock awards granted (in thousands except per share fair value):

	Shares	Weighted Average Fair Value
Unvested shares at December 31, 2016	360	$3.20
Granted	500	5.08
Vested	(675)	4.59
Forfeited	-	-
Unvested shares at December 30, 2017	185	$3.28
Granted	-	-
Vested	(2)	5.28
Forfeited	-	-
Unvested shares at December 31, 2018	183	$3.25
Expected to Vest as of December 31, 2018	183	$3.25

During the year ended December 30, 2017, the Company granted 500,000 shares of restricted stock award to the Company's President and Chief Operating Officer Robert Fried, which vested during the year ended December 30, 2017. The expense for vested restricted stock was approximately $2.5 million and was recognized during the year ended December 30, 2017.

During the year ended December 30, 2017, the Company's former Chief Financial Officer, Thomas Varvaro resigned and received immediate vesting of his unvested restricted stock of 166,668 shares. The expense for the vested restricted stock was approximately $0.5 million and was recognized prior to the fiscal year 2017.

Performance Stock Awards

During the fiscal year 2018, the Compensation Committee of the Board of Directors of the Company approved grants of an aggregate total of 333,334 shares of fully vested stock to Robert Fried, the Company’s Chief Executive Officer. The shares were granted pursuant to his employment agreement, which provided the stock grant upon the achievement of certain performance goals. The expense for the awarded shares was approximately $1.3 million and was recognized during the fiscal year 2018.

Total Share-based Compensation

The Company recognized share-based compensation expense of approximately $6.4 million and $4.6 million in the statement of operations for the years ended December 31, 2018 and December 30, 2017, respectively.

Note 13.
Stock Issuance

Fiscal year 2017

On April 26, 2017, the Company entered into a Securities Purchase Agreement with certain purchasers named therein, pursuant to which the Company agreed to sell and issue up to $25.0 million of its common stock at a purchase price of $2.60 per share in three tranches of approximately $3.5 million, $16.4 million and $5.1 million, respectively. All three tranches closed during the year ended December 30, 2017, whereby approximately 9.6 million shares were issued for proceeds of $23.7 million, net of offering costs.

On November 3, 2017 the Company entered into a Securities Purchase Agreement for the sale of approximately $23.0 million of its common stock in a private placement, in return for which the purchasers received approximately 5.6 million shares at a per share price of $4.10. The private placement closed during the year ended December 30, 2017 and the Company received proceeds of $22.9 million, net of offering costs.

Note 14.
Warrants

The following table summarizes activity of warrants at December 31, 2018 and December 30, 2017 and changes during the years then ended (in thousands except per share data and remaining contractual term):

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term
Outstanding and exercisable at December 31, 2016	470	4.15	2.17
Warrants Issued	-	-	
Warrants Exercised	-	-	
Warrants Expired	-	-	
Outstanding and exercisable at December 30, 2017	470	4.15	1.17
Warrants Issued	-	-	
Warrants Exercised	-	-	
Warrants Expired	(266)	4.50	
Outstanding and exercisable at December 31, 2018	204	$3.69	0.57

Note 15.
Commitments and Contingencies

Lease

The Company leases its office and research facilities in California, Colorado and Maryland under operating lease agreements that expire at various dates from September 2019 through February 2024. Monthly lease payments range from $4,000 per month to $48,000 per month, and minimum lease payments escalate during the terms of the leases. Generally accepted accounting principles require total minimum lease payments to be recognized as rent expense on a straight-line basis over the term of the lease. The excess of such expense over amounts required to be paid under the lease agreement is carried as a liability on the Company’s consolidated balance sheet.

Minimum future rental payments under all of the leases as of December 31, 2018 are as follows:

(In thousands) Fiscal years ending:	
2019	$787
2020	733
2021	627
2022	138

2023	143
Thereafter	24
	$2,452

Rent expense was approximately $791,000 and $729,000 for the years ended December 31, 2018 and December 30, 2017, respectively.

During the year ended December 31, 2018, the Company entered into lease amendments to lease additional office space located in Los Angeles, California through October 2021. Pursuant to the lease, the Company will make additional monthly lease payments ranging from approximately $25,000 to $27,000, as the payments escalate during the term of the lease. Pursuant to the term of the lease amendment, the landlord provided tenant improvements for approximately $70,000 in 2018. The landlord provided lease incentive (a) has been recorded as leasehold improvement asset and is amortized over the lease term which is through October 2021; and (b) has been recorded as deferred rent and is amortized as reductions to lease expense over the lease term.

Purchase obligations

The Company enters into purchase obligations with various vendors for goods and services that we need for our operations. The purchase obligations for goods and services include inventory, research and development, and laboratory supplies. Minimum future payments under purchase obligations as of December 31, 2018 are as follows:

(In thousands) Fiscal year ending:	
2019	$4,365,000
	$4,365,000

Royalty

The Company has nine licensing agreements with leading research universities and other patent holders, pursuant to which the Company acquired patents related to certain products the Company offers to its customers. These agreements afford for future royalty payments based on contractual minimums and expire at various dates from December 31, 2019 through an estimated year of 2032. Yearly minimum royalty payments including license maintenance fees range from $10,000 per year to $100,000 per year, however, these minimum payments escalate each year with a maximum of $150,000 per year. In addition, the Company is required to pay a range of 2% to 5% of sales related to the licensed products under these agreements. Total royalty expenses including license maintenance fees for the years ended December 31, 2018 and December 30, 2017 were approximately $1.7 million and $1.0 million, respectively under these agreements. Minimum royalties including license maintenance fees for the next five years are as follows:

(In thousands) Fiscal years ending:	
2019	$333
2020	367
2021	385
2022	386
2023	388
	$1,859

Supply agreement with Nestlé

On December 19, 2018, the Company entered into a supply agreement with Nestec Ltd. (“Nestlé”), pursuant to which Nestlé will be our exclusive customer for NIAGEN® ingredient for human use in the (i) medical nutritional and (ii) functional food and beverage categories in certain territories. As consideration for the rights granted to Nestlé, we received an upfront fee of $4 million in January 2019. Following the launch of the products in certain territories, Nestlé will additionally pay us a one-time fee for a potential total aggregate payment of $6 million.

Legal proceedings – Elysium Health, LLC

(A) California Action

On December 29, 2016, ChromaDex, Inc. filed a complaint in the United States District Court for the Central District of California, naming Elysium Health, Inc. (together with Elysium Health, LLC, “Elysium”) as defendant (the “Complaint”). On January 25, 2017, Elysium filed an answer and counterclaims in response to the Complaint (together with the Complaint, the “California Action”). Over the course of the California Action, the parties have each filed amended pleadings several times and have each engaged in several rounds of motions to dismiss and one round of motion for judgment on the pleadings with respect to various claims. Most recently, on November 27, 2018, ChromaDex, Inc. filed a fifth amended complaint that added an individual, Mark Morris, as a defendant. Elysium and Morris (“the Defendants”) moved to dismiss on December 21, 2018. The court denied Defendants’ motion on February 4, 2019.

Following the court’s February 4, 2019 order, the claims that ChromaDex, Inc. presently asserts in the California Action, among other allegations, are that (i) Elysium breached the Supply Agreement, dated June 26, 2014, by and between ChromaDex, Inc. and Elysium (the “pTeroPure® Supply Agreement”), by failing to make payments to ChromaDex, Inc. for purchases of pTeroPure® and by improper disclosure of confidential ChromaDex, Inc.

information pursuant to the pTeroPure® Supply Agreement, (ii) Elysium breached the Supply Agreement, dated February 3, 2014, by and between ChromaDex, Inc. and Elysium, as amended (the "NIAGEN® Supply Agreement"), by failing to make payments to ChromaDex, Inc. for purchases of NIAGEN® and by improper disclosure of confidential ChromaDex, Inc. information pursuant to the NIAGEN® Supply Agreement, (iii) Defendants willfully and maliciously misappropriated ChromaDex, Inc. trade secrets concerning its ingredient sales business under both the California Uniform Trade Secrets Act and the Federal Defend Trade Secrets Act, (iv) Morris breached two confidentiality agreements he signed by improperly stealing confidential ChromaDex, Inc. documents and information, (v) Morris breached his fiduciary duty to ChromaDex, Inc. by lying to and competing with ChromaDex, Inc. while still employed there, and (vi) Elysium aided and abetted Morris's breach of fiduciary duty. ChromaDex, Inc. is seeking damages and interest for Elysium's alleged breaches of the NIAGEN® Supply Agreement and pTeroPure® Supply Agreement and Morris's alleged breaches of his confidentiality agreements, compensatory damages and interest, punitive damages, injunctive relief, and attorney's fees for Defendants' alleged willful and malicious misappropriation of ChromaDex, Inc.'s trade secrets, and compensatory damages and interest, disgorgement of all benefits received, and punitive damages for Morris's alleged breach of his fiduciary duty and Elysium's aiding and abetting of that alleged breach. Defendants filed their answer to ChromaDex, Inc.'s fifth amended complaint on February 19, 2019.

Among other allegations, the claims that Elysium presently alleges in the California Action are that (i) ChromaDex, Inc. breached the NIAGEN® Supply Agreement by not issuing certain refunds or credits to Elysium, by not supplying NIAGEN® manufactured according to the defined standard, by distributing the NIAGEN® product specifications attached to the parties' agreement to other customers, and by failing to provide Elysium with information concerning the quality and identity of NIAGEN® pursuant to the NIAGEN® Supply Agreement, (ii) ChromaDex, Inc. breached the implied covenant of good faith and fair dealing pursuant to the NIAGEN® Supply Agreement, (iii) ChromaDex, Inc. fraudulently induced Elysium into entering into the Trademark License and Royalty Agreement, dated February 3, 2014, by and between ChromaDex, Inc. and Elysium (the "License Agreement"), (iv) ChromaDex, Inc.'s conduct constitutes misuse of its patent rights, and (v) ChromaDex, Inc. was unjustly enriched by the royalties Elysium paid pursuant to the License Agreement. Elysium is seeking damages for ChromaDex, Inc.'s alleged breaches of the NIAGEN® Supply Agreement and pTeroPure® Supply Agreement, and compensatory damages, punitive damages, and/or rescission of the License Agreement and restitution of any royalty payments conveyed by Elysium pursuant to the License Agreement, and a declaratory judgment that ChromaDex, Inc. has engaged in patent misuse. ChromaDex, Inc. answered Elysium's present allegations on August 24, 2018. The parties are currently in discovery.

(B) Patent Office Proceedings

On July 17, 2017, Elysium filed petitions with the U.S. Patent and Trademark Office for inter partes review of U.S. Patents 8,197,807 (the "'807 Patent") and 8,383,086 (the " '086 Patent"), patents to which ChromaDex, Inc. is the exclusive licensee. The Patent Trial and Appeal Board ("PTAB") denied institution of the inter partes review for the '807 Patent on January 18, 2018. On January 29, 2018, the PTAB granted institution of the inter partes review as to claims 1, 3, 4, and 5 and denied institution as to claim 2 of the '086 Patent. Based upon a recent U.S. Supreme Court decision, and solely on a procedural basis, the PTAB was required to include claim 2 in the trial of the inter partes review. The matter was heard on October 2, 2018. The PTAB issued its written decision on January 16, 2019, upholding claim 2 of the '086 Patent which relates to the use of isolated NR in a pharmaceutical composition as valid. Elysium is now prevented from raising invalidity arguments against the '086 Patent in the ongoing patent litigation in Delaware that it brought or could have brought before the PTAB in its inter partes review.

(C) Southern District of New York Action

On September 27, 2017, Elysium Health Inc. ("Elysium Health") filed a complaint in the United States District Court for the Southern District of New York, against ChromaDex, Inc. (the "Elysium SDNY Complaint"). Elysium Health alleges in the Elysium SDNY Complaint that ChromaDex, Inc. made false and misleading statements in a citizen petition to the Food and Drug Administration it filed on or about August 18, 2017. Among other allegations, Elysium Health avers that the citizen petition made Elysium Health's product appear dangerous, while casting ChromaDex, Inc.'s own product as safe. The Elysium SDNY Complaint asserts four claims for relief: (i) false advertising under the Lanham Act, 15 U.S.C. § 1125(a); (ii) trade libel; (iii) deceptive business practices under New York General Business Law § 349; and (iv) tortious interference with prospective economic relations. ChromaDex, Inc. denies the claims in the Elysium SDNY Complaint and intends to defend against them vigorously. On October 26, 2017, ChromaDex, Inc. moved to dismiss the Elysium SDNY Complaint on the grounds that, inter alia, its statements in the citizen petition are immune from liability under the Noerr-Pennington Doctrine, the litigation privilege, and New York's Anti-SLAPP statute, and that the Elysium SDNY Complaint failed to state a claim. Elysium Health opposed the motion on November 2, 2017. ChromaDex, Inc. filed its reply on November 9, 2017.

On October 26, 2017, ChromaDex, Inc. filed a complaint in the United States District Court for the Southern District of New York against Elysium Health (the "ChromaDex SDNY Complaint"). ChromaDex, Inc. alleges that Elysium Health made material false and misleading statements to consumers in the promotion, marketing, and sale of its health supplement product, Basis, and asserts five claims for relief: (i) false advertising under the Lanham Act, 15 U.S.C. §1125(a); (ii) unfair competition under 15 U.S.C. § 1125(a); (iii) deceptive practices under New York General

Business Law § 349; (iv) deceptive practices under New York General Business Law § 350; and (v) tortious interference with prospective economic advantage. On November 16, 2017, Elysium Health moved to dismiss for failure to state a claim. ChromaDex, Inc. opposed the motion on November 30, 2017 and Elysium Health filed a reply on December 7, 2017.

On November 3, 2017, the Court consolidated the Elysium SDNY Complaint and the ChromaDex SDNY Complaint actions under the caption In re Elysium Health-ChromaDex Litigation, 17-cv-7394, and stayed discovery in the consolidated action pending a Court-ordered mediation. The mediation was unsuccessful. On September 27, 2018, the Court issued a combined ruling on both parties' motions to dismiss. For ChromaDex's motion to dismiss, the Court converted the part of the motion on the issue of whether the citizen petition is immune under the Noerr-Pennington Doctrine into a motion for summary judgment, and requested supplemental evidence from both parties, which were submitted on October 29, 2018. The Court otherwise denied the motion to dismiss. On January 3, 2019, the Court granted ChromaDex, Inc.'s motion for summary judgment under the Noerr-Pennington Doctrine and dismissed all claims in the Elysium SDNY Complaint. Elysium moved for reconsideration on January 17, 2019. The Court denied Elysium's motion for reconsideration on February 6, 2019, and issued an amended final order granting ChromaDex, Inc.'s motion for summary judgment as on February 7, 2019.

The Court granted it part and denied in part Elysium's motion to dismiss, sustaining three grounds for ChromaDex's Lanham Act claims while dismissing two others, sustaining the claim under New York General Business Law § 349, and dismissing the claims under New York General Business Law § 350 and for tortious interference. Elysium filed an answer and counterclaims on October 10, 2018, alleging claims for (i) false advertising under the Lanham Act, 15 U.S.C. §1125(a); (ii) unfair competition under 15 U.S.C. § 1125(a); and (iii) deceptive practices under New York General Business Law § 349. ChromaDex, Inc. answered Elysium's counterclaims on November 2, 2018. The parties are conferring on a proposed scheduling order.

The Company is unable to predict the outcome of these matters and, at this time, cannot reasonably estimate the possible loss or range of loss with respect to the legal proceedings discussed herein. As of December 31, 2018, ChromaDex, Inc. did not accrue a potential loss for the California Action or the Elysium SDNY Complaint because ChromaDex, Inc. believes that the allegations are without merit and thus it is not probable that a liability has been incurred.

(D) Delaware – Patent Infringement Action

On September 17, 2018, ChromaDex, Inc. and Trustees of Dartmouth College filed a patent infringement complaint in the United States District Court for the District of Delaware against Elysium Health, Inc. The complaint alleges that Elysium's BASIS® dietary supplement violates U.S. Patents 8,197,807 (the "'807 Patent") and 8,383,086 (the "'086 Patent") that comprise compositions containing isolated nicotinamide riboside held by Dartmouth and licensed exclusively to ChromaDex, Inc. On October 23, 2018, Elysium filed an answer to the complaint. The answer asserts various affirmative defenses and denies that Plaintiffs are entitled to any relief.

On November 7, 2018, Elysium filed a motion to stay the patent infringement proceedings pending resolution of (1) the inter partes review of the '807 Patent and the '086 Patent before the Patent Trial and Appeal Board ("PTAB") and (2) the outcome of the litigation in the California Action. ChromaDex, Inc. filed an opposition brief on November 21, 2018 detailing the issues with Elysium's motion to stay. In particular, ChromaDex, Inc. argued that given claim 2 of the '086 Patent was only included in the PTAB's inter partes review for procedural reasons the PTAB was unlikely to invalidate claim 2 and therefore litigation in Delaware would continue regardless. In addition, ChromaDex, Inc. argued that the litigation in the California Action is unlikely to have a significant effect on the ongoing patent litigation. After the PTAB released its written decision upholding claim 2 of the '086 Patent proving right ChromaDex, Inc.'s prediction ChromaDex, Inc. informed the Delaware court of the PTAB's decision on January 17, 2019. Both Elysium and ChromaDex, Inc. have informed the court that they are available for oral argument on the motion to stay, and though the court's docket is very crowded, ChromaDex, Inc. currently anticipates a ruling this spring.

Legal proceedings – Covance Laboratories Inc.

On January 10, 2019, Covance Laboratories Inc. (“Covance”) filed a complaint in the United States District Court for the District of Delaware against ChromaDex, Inc. and ChromaDex Analytics, Inc. (collectively “ChromaDex”). The complaint alleges that ChromaDex breached an Asset Purchase Agreement (“APA”), dated August 21, 2017, between Covance and ChromaDex in which Covance purchased certain assets related to ChromaDex’s Lab Business for $7,500,000. Specifically, the complaint alleges that ChromaDex failed to deliver to Covance its entire ComplyID library. On February 4, 2019, ChromaDex filed an answer to the complaint. The answer asserts various affirmative defenses and denies that Covance is entitled to any relief.

From time to time we are involved in legal proceedings arising in the ordinary course of our business. We believe that there is no other litigation pending that is likely to have, individually or in the aggregate, a material adverse effect on our financial condition or results of operations.

Note 16.
Business Segmentation and Geographical Distribution

The Company has the following three reportable segments for the years ended December 31, 2018 and December 30, 2017:

Consumer products segment: provides finished dietary supplement products that contain the Company's proprietary ingredients directly to consumers as well as to distributors.

Ingredients segment: develops and commercializes proprietary-based ingredient technologies and supplies these ingredients as raw materials to the manufacturers of consumer products in various industries including the nutritional supplement, food, beverage and animal health industries.

Analytical reference standards and services segment: includes (i) supply of phytochemical reference standards, (ii) scientific and regulatory consulting and (iii) other research and development services.

The “Corporate and other” classification includes corporate items not allocated by the Company to each reportable segment. Further, there are no intersegment sales that require elimination. The Company evaluates performance and allocates resources based on reviewing gross margin by reportable segment. The discontinued operations are not included in following statement of operations for business segments.

Year ended December 31, 2018 (In thousands)	Consumer Products segment	Ingredients segment	Analytical Reference Standards and Services segment	Corporate and other	Total
Net sales	$18,451	$8,565	$4,541	$-	$31,557
Cost of sales	7,222	4,831	3,449	-	15,502
Gross profit	11,229	3,734	1,092	-	16,055
Operating expenses:					
Sales and marketing	15,063	727	747	-	16,537
Research and development	3,852	1,626	-	-	5,478
General and administrative	-	-	-	27,137	27,137
Other				75	75
Operating expenses	18,915	2,353	747	27,212	49,227
Operating income (loss)	$(7,686)	$1,381	$345	$(27,212)	$(33,172)

Year ended December 30, 2017 (In thousands)	Consumer Products segment	Ingredients segment	Analytical Reference Standards and Services segment	Corporate and other	Total
Net sales	$5,465	$11,153	$4,583	$-	$21,201
Cost of sales	2,190	5,492	3,042	-	10,724
Gross profit	3,275	5,661	1,541	-	10,477
Operating expenses:					
Sales and marketing	2,673	1,280	506	-	4,459
Research and development	1,104	2,903	-	-	4,007
General and administrative	-	-	-	17,642	17,642
Other	-	746	-	-	746
Operating expenses	3,777	4,929	506	17,642	26,854
Operating income (loss)	$(502)	$732	$1,035	$(17,642)	$(16,377)

At December 31, 2018 (In thousands)	Consumer Products segment	Ingredients segment	Analytical Reference Standards and Services segment	Corporate and other	Total
Total assets	$7,407	$5,412	$1,213	$28,200	$42,232

At December 30, 2017	Consumer Products	Ingredients	Analytical Reference Standards and	Corporate

(In thousands)	segment	segment	Services segment	and other	Total
Total assets	$3,399	$9,742	$2,559	$47,024	$62,724

Disaggregation of revenue

We disaggregate our revenue from contracts with customers by type of goods or services for each of our segments, as we believe it best depicts how the nature, amount, timing and uncertainty of our revenue and cash flows are affected by economic factors. See details in the tables below.

Year Ended December 31, 2018 (In thousands)	Consumer Products Segment	Ingredients Segment	Analytical Reference Standards and Services Segment	Total
TRU NIAGEN®, Consumer Product	$18,451	$-	$-	$18,451
NIAGEN® Ingredient	-	5,169	-	5,169
Subtotal NIAGEN Related	$18,451	$5,169	$-	$23,620
Other Ingredients	-	3,396	-	3,396
Reference Standards	-	-	3,455	3,455
Consulting and Other	-	-	1,086	1,086
Subtotal Other Goods and Services	$-	$3,396	$4,541	$7,937
Total Net Sales	$18,451	$8,565	$4,541	$31,557

Year Ended December 30, 2017 (In thousands)	Consumer Products Segment	Ingredients Segment	Analytical Reference Standards and Services Segment	Total
TRU NIAGEN®, Consumer Product	$5,465	$-	$-	$5,465
NIAGEN® Ingredient	-	7,752	-	7,752
Subtotal NIAGEN Related	$5,465	$7,752	$-	$13,217
Other Ingredients	-	3,401	-	3,401
Reference Standards	-	-	3,058	3,058
Consulting and Other	-	-	1,525	1,525
Subtotal Other Goods and Services	$-	$3,401	$4,583	$7,984
Total Net Sales	$5,465	$11,153	$4,583	$21,201

Revenues from international sources

Revenues from International Sources	Year ended Dec. 31, 2018	Year ended Dec. 30, 2017
Consumer Products Segment	$4.2 million	$4.2 million
Ingredients Segment	$0.6 million	$0.4 million
Analytical Reference Standards and Services Segment	$1.7 million	$1.0 million
Total	$6.5 million	$5.6 million

*International sources include Europe, North America, South America, Asia and Oceania.

Long-lived assets

The Company’s long-lived assets are located within the United States.

Disclosure of major customers

Major customers who accounted for more than 10% of the Company’s total sales were as follows:

	Years Ended	
Major Customers	2018	2017
A.S. Watson Group - Related Party	*	19.4%
Thorne Research	*	10.2%
Life Extension	10.0%	*

* Represents less than 10%.

Major customers who accounted for more than 10% of the Company’s total trade receivables were as follows:

	Percentage of the Company's Total Trade Receivables	
Major Customers	At December 31, 2018	At December 30, 2017
A.S. Watson Group - Related Party	15.9%	18.1%
Thorne Research	*	13.4%
Elysium Health (1)	51.2%	41.8%

* Represents less than 10%.

(1) There is ongoing litigation with Elysium Health

Disclosure of major vendors

Major vendors who accounted for more than 10% of the Company's total accounts payable were as follows:

	Percentage of the Company's Total Accounts Payable	
Major Vendors	At December 31, 2018	At December 30, 2017
Vendor A	36.8%	*
Vendor C	*	14.5%
Vendor D	*	10.4%
Vendor E	13.2%	10.3%

* Represents less than 10%.

Note 17.
Other Expense

Loss from an ongoing litigation, Elysium

During the year ended December 30, 2017, the Company incurred a write-off of approximately $746,000 in gross trade receivable from Elysium related to royalties, due to inherent uncertainty about collecting all damages sought by the Company, as well as the Company’s decision to not seek damages for any unpaid royalty payments under the License Agreement in connection with the defense of Elysium’s claims for patent misuse and unjust enrichment. As a result of this write-off and after further analysis, the Company made an adjustment to the total allowance amount from ($800,000) to ($500,000).

Item 9.
Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A.
Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our principal executive officer and principal financial officer carried out an evaluation of the effectiveness of our disclosure controls and procedures as of December 31, 2018. Pursuant to Rule13a−15(e) promulgated by the Commission pursuant to the Securities Exchange Act of 1934, as amended (the "Exchange Act") "disclosure controls and procedures" means controls and other procedures that are designed to insure that information required to be disclosed by us in the reports that we file with the Commission is recorded, processed, summarized and reported within the time periods specified in the Commission's rules and forms. "Disclosure controls and procedures" include, without limitation, controls and procedures designed to insure that information that we are required to disclose in the reports we file with the Commission is accumulated and communicated to our principal executive officer and principal financial officer as appropriate to allow timely decisions regarding required disclosure. Based on their evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective as of December 31, 2018.

Inherent Limitations on Disclosure Controls and Procedures

The effectiveness of our disclosure controls and procedures is subject to various inherent limitations, including cost limitations, judgments used in decision making, assumptions about the likelihood of future events, the soundness of our systems, the possibility of human error, and the risk of fraud. Moreover, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions and the risk that the degree of compliance with policies or procedures may deteriorate over time. Because of these limitations, there can be no assurance that any system of disclosure controls and procedures, no matter how well conceived, will be successful in preventing all errors or fraud or in making all material information known in a timely manner to the appropriate levels of management.

Changes in Internal Control over Financial Reporting

There were no change in internal controls over financial reporting (as defined in Rule 13a−15(f) promulgated under the Exchange Act) that occurred during our fourth fiscal quarter that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

Management Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) and 15d-(f) under the Exchange Act. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements for external purposes in accordance with U.S. generally accepted accounting principles. Our internal control over financial reporting include those policies and procedures that:

(i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;

(ii) provide reasonable assurance that transactions are recorded as necessary to permit the preparation of our consolidated financial statements in accordance with U.S. generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and

(iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the consolidated financial statements.

Our management, including the undersigned principal executive officer and principal financial officer, assessed the effectiveness of our internal control over financial reporting as of December 31, 2018. In conducting its assessment, our management used the criteria issued by the Committee of Sponsoring Organizations of the Treadway Commission in Internal Control—Integrated Framework in 2013. Based on this assessment, our management concluded that, as of December 31, 2018, our internal control over financial reporting was effective based on those criteria.

Inherent Limitations on Internal Control

Internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations, including the possibility of human error and circumvention by collusion or overriding of control. Accordingly, even an effective internal control system may not prevent or detect material misstatements on a timely basis. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that the controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate. Accordingly, our internal control over financial reporting is designed to provide reasonable assurance of achieving their objectives.

Attestation Report of the Registered Public Accounting Firm

The effectiveness of our internal control over financial reporting has been audited by Marcum LLP, an independent registered public accounting firm, as stated in their attestation report in Item 8 of this Annual Report on Form 10-K, which expresses an unqualified opinion on the effectiveness of our internal control over financial reporting as of December 31, 2018.

Item 9B.
Other Information

None.

PART III

Item 10.
Directors, Executive Officers and Corporate Governance

Information required by this item will be contained in the Proxy Statement and is incorporated herein by reference.

We have adopted a written Code of Business Conduct and Ethics (the “Ethics Code”) that applies to all officers, directors and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. The Ethics Code is available on our website at www.chromadex.com. If we make any substantive amendments to the Ethics Code or grant any waiver from a provision of the Ethics Code to any executive officer or director, we will promptly disclose the nature of the amendment or waiver on our website or in a Current Report on Form 8-K.

Item 11.
Executive Compensation

Information required by this item will be contained in the Proxy Statement and is incorporated herein by reference.

Item 12.
Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information required by this item will be contained in the Proxy Statement and is incorporated herein by reference.

Item 13.
Certain Relationships and Related Transactions, and Director Independence

Information required by this item will be contained in the Proxy Statement and is incorporated herein by reference.

Item 14.
Principal Accounting Fees and Services

Information required by this item will be contained in the Proxy Statement and is incorporated herein by reference.

PART IV

Item 15.
Exhibits and Financial Statement Schedules

(a)(1) Financial Statements

Reference is made to Item 8 of this Annual Report on Form 10-K.

(a)(2) Financial Statement Schedules

All schedules have been omitted because they are not required or because the required information is given in the Financial Statements or Notes thereto set forth under Part II, Item 8 of this Annual Report on Form 10-K.

(a)(3) List of Exhibits

INDEX TO EXHIBITS

Exhibit No.	Description
2.1	Agreement and Plan of Merger, dated as of May 21, 2008, among Cody, CDI Acquisition, Inc. and ChromaDex, Inc. as amended on June 10, 2008 (incorporated by reference from, and filed as Exhibit 2.1 to the Company's Current Report on Form 8-K (File No. 333-140056) filed with the Commission on June 24, 2008) (1)
2.2	Asset Purchase Agreement, dated as of August 21, 2017, by and among Covance Laboratories Inc., ChromaDex, Inc., ChromaDex Analytics, Inc., and ChromaDex Corporation (incorporated by reference from, and filed as Exhibit 2.2 to the Company's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on November 9, 2017)*(2)
2.3	Amendment to Asset Purchase Agreement, dated as of September 5, 2017, by and among Covance Laboratories Inc., ChromaDex, Inc., ChromaDex Analytics, Inc., and ChromaDex Corporation (incorporated by reference from, and filed as Exhibit 2.2 to the Company's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on November 9, 2017)
3.1	Amended and Restated Certificate of Incorporation of ChromaDex Corporation, a Delaware corporation (incorporated by reference from, and filed as Exhibit 3.1 to the Company's Annual Report on Form 10-K (File No. 001-37752) filed with the Commission on March 15, 2018)
3.2	Certificate of Amendment to the Certificate of Incorporation of ChromaDex Corporation, a Delaware corporation (incorporated by reference from, and filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 000-53290) filed with the Commission on April 12, 2016)
3.3	Bylaws of ChromaDex Corporation, a Delaware corporation (incorporated by reference from, and filed as Exhibit 3.2 to the Company's Current Report on Form 8-K (File No. 333-140056) filed with the Commission on June 24, 2008)
3.4	Amendment to Bylaws of ChromaDex Corporation, a Delaware corporation (incorporated by reference from, and filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-37752) filed with

	the Commission on July 19, 2016)
4.1	Form of Stock Certificate representing shares of ChromaDex Corporation Common Stock (Effective through December 31, 2015, incorporated by reference from, and filed as Exhibit 4.1 of the Company's Annual Report on Form 10-K (File No. 000-53290) filed with the Commission on April 3, 2009)

4.2	Investor's Rights Agreement, effective as of December 31, 2005, by and between The University of Mississippi Research Foundation and ChromaDex (incorporated by reference from, and filed as Exhibit 4.1 to the Company's Current Report on Form 8-K (File No. 333-140056) filed with the Commission on June 24, 2008)
4.3	Tag-Along Agreement effective as of December 31, 2005, by and among the Company, Frank Louis Jaksch, Snr. & Maria Jaksch, Trustees of the Jaksch Family Trust, Margery Germain, Lauren Germain, Emily Germain, Lucie Germain, Frank Louis Jaksch, Jr., and the University of Mississippi Research Foundation (incorporated by reference from, and filed as Exhibit 4.2 to the Company's Current Report on Form 8-K (File No. 333-140056) filed with the Commission on June 24, 2008)
4.4	Form of Stock Certificate representing shares of ChromaDex Corporation Common Stock (Design effective from January 1, 2016 to December 9, 2018, incorporated as by reference from and filed as Exhibit 4.4 to the Company's Annual Report on Form 10-K (File No. 001-37752) filed with the Commission on March 17, 2016)
4.5	Form of Stock Certificate representing shares of ChromaDex Corporation Common Stock (New design effective as of December 10, 2018)
10.1	Second Amended and Restated 2007 Equity Incentive Plan effective March 13, 2007, as amended May 20, 2010 (incorporated by reference from, and filed as Appendix B to the Company's Current Definitive Proxy Statement on Schedule 14A (File No. 000-53290) filed with the Commission on May 4, 2010)(1)+
10.2	Form of Stock Option Agreement under the ChromaDex, Inc. Second Amended and Restated 2007 Equity Incentive Plan (incorporated by reference from, and filed as Exhibit 10.3 to the Company's Current Report on Form 8-K (File No. 333-140056) filed with the Commission on June 24, 2008)(1)+
10.3	Form of Restricted Stock Purchase Agreement under the ChromaDex, Inc. 2007 Equity Incentive Plan (incorporated by reference from, and filed as Exhibit 10.4 to the Company's Current Report on Form 8-K (File No. 333-140056) filed with the Commission on June 24, 2008)(1)+
10.4	Amended and Restated Employment Agreement dated April 19, 2010, by and between Frank L. Jaksch, Jr. and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on April 22, 2010)(1)+
10.5	Amendment, dated June 22, 2018, to the Amended and Restated Employment Agreement, by and between Frank L. Jaksch Jr. and ChromaDex, Inc. (incorporated by reference to, and filed as Exhibit 10.2 to the Registrant's Current Report on Form 8-K (File No. 001-37752) filed with the Commission on June 28, 2018)+
10.6	Amended and Restated Employment Agreement dated April 19, 2010, by and between Thomas C. Varvaro and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.2 to the Company's Current Report on Form 8-K (File No. 000-53290) filed with the Commission on April 22, 2010)(1)+
10.7	Transition and Separation Agreement, dated December 15, 2017, by and between ChromaDex Corporation and Thomas C. Varvaro (incorporated by reference from, and filed as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-37752) filed with the Commission on December 21, 2017)+
10.8	Standard Industrial/Commercial Multi-Tenant Lease – Net dated December 19, 2006, by and between ChromaDex, Inc. and SCIF Portfolio II, LLC (incorporated by reference from, and filed as Exhibit 10.7 to the Company's Current Report on Form 8-K (File No. 333-140056) filed with the Commission on June 24, 2008)
10.9	

	First Amendment to Standard Industrial/Commercial Multi-Tenant Lease, made as of July 18, 2008, between SCIF Portfolio II, LLC (“Lessor”) and ChromaDex, Inc. (“Lessee”) (incorporated by reference from, and filed as Exhibit 10.1 to the Company’s Current Report on Form 8-K (File No. 000-53290) filed with the Commission on July 23, 2008)
10.10	Second Amendment to Standard Industrial/Commercial Multi-Tenant Lease, made as of May 7, 2013, between SCIF Portfolio II, LLC (“Lessor”) and ChromaDex, Inc. (“Lessee”) (incorporated by reference from, and filed as Exhibit 10.1 to the Company’s Current Report on Form 8-K (File No. 000-53290) filed with the Commission on May 7, 2013)
10.11	License Agreement, dated March 25, 2010 between the University of Mississippi and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 000-53290) filed with the Commission on May 18, 2010)*
10.12	First Amendment to License Agreement, made as of June 3, 2011 between the University of Mississippi and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.1 to the Company’s Quarterly Report on Form 10-Q (File No. 000-53290) filed with the Commission on August 11, 2011)*
10.13	Restated and Amended License Agreement, effective as of June 3, 2015 between the University of Mississippi and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.2 to the Company’s Quarterly Report on Form 10-Q (File No. 000-53290) filed with the Commission on August 13, 2015)*

10.14	License Agreement, dated July 5, 2011 between ChromaDex, Inc. and Cornell University (incorporated by reference from, and filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 000-53290) filed with the Commission on November 10, 2011)*
10.15	Exclusive License Agreement, dated September 8, 2011 between the Regents of the University of California and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q (File No. 000-53290) filed with the Commission on November 10, 2011)*
10.16	First Amendment to the License Agreement, effective as of September 5, 2014 between the Regents of the University of California and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 000-53290) filed with the Commission on November 6, 2014)*
10.17	Second Amendment to the License Agreement, effective as of December 31, 2015, between the Regents of the University of California and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.8 to the Company's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on November 10, 2016)*
10.18	Exclusive License Agreement, dated July 13, 2012 between Dartmouth College and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on November 10, 2016)
10.19	Exclusive License Agreement, dated March 7, 2013 between Washington University and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on November 10, 2016)
10.20	Amendment #1 to Exclusive License Agreement, effective as of December 15, 2015, between Washington University and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on November 10, 2016)
10.21	License Agreement, made as of August 1, 2013, between Green Molecular S.L., Inc. and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.6 to the Company's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on November 10, 2016)
10.22	Employment Agreement by and between ChromaDex Corp. and Troy Rhonemus dated March 6, 2014 (incorporated by reference from, and filed as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 000-53290) filed with the Commission on March 10, 2014)+
10.23	Exclusive License Agreement, effective as of May 16, 2014 between Dartmouth College and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 000-53290) filed with the Commission on August 12, 2014)*
10.24	First Amendment to Exclusive License Agreement, effective as of June 13, 2016, between Dartmouth College and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.10 to the Company's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on November 10, 2016)*
10.25	License Agreement, effective as of October 15, 2014 between University of Mississippi and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.40 to the Company's Annual report on Form 10-K (File No. 000-53290) filed with the Commission on March 19, 2015)*

10.26	First Amendment to Exclusive License Agreement, effective as of July 6, 2015, between University of Mississippi and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.7 to the Company's Quarterly report on Form 10-Q (File No. 001-37752) filed with the Commission on November 10, 2016)
10.27	Exclusive License and Supply Agreement, effective as of May 12, 2015 between Suntava, Inc. and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 000-53290) filed with the Commission on August 13, 2015)*
10.28	Lease Agreement, made as of April 14, 2016, by and between Longmont Diagonal Investments LLC and ChromaDex Analytics, Inc. (incorporated by reference from and filed as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 000-53290) filed with the Commission on April 20, 2016)
10.29	Supply Agreement, effective as of February 3, 2014, between Elysium Health, Inc. and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on May 12, 2016)*
10.30	Supply Agreement, effective as of June 26, 2014, between Elysium Health, Inc. and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on May 12, 2016)*
10.31	Amendment to Supply Agreement, effective as of February 19, 2016, between Elysium Health, Inc. and ChromaDex, Inc. (incorporated by reference from, and filed as Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on May 12, 2016)*

10.32	Form of Securities Purchase Agreement, dated as of June 3, 2016, between an existing stockholder and ChromaDex Corporation (incorporated by reference from and filed as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-37752) filed with the Commission on June 6, 2016)
10.33	Business Financing Agreement, dated as of November 4, 2016, between Western Alliance Bank and ChromaDex Corporation (incorporated by reference to, and filed as Exhibit 10.60 to the Registrant's Annual Report on Form 10-K (File No. 001-37752) filed with the Commission on March 16, 2017)
10.34	First Business Financing Modification Agreement, dated as of February 16, 2017, between Western Alliance Bank and ChromaDex Corporation (incorporated by reference to, and filed as Exhibit 10.61 to the Registrant's Annual Report on Form 10-K (File No. 001-37752) filed with the Commission on March 16, 2017)
10.35	Second Business Financing Modification Agreement, dated as of March 12, 2017, between Western Alliance Bank and ChromaDex Corporation (incorporated by reference to, and filed as Exhibit 10.62 to the Registrant's Annual Report on Form 10-K (File No. 001-37752) filed with the Commission on March 16, 2017)
10.36	Third Business Financing Modification Agreement, dated as of April 19, 2017, between Western Alliance Bank and ChromaDex Corporation (incorporated by reference from, and filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on August 10, 2017)
10.37	Fourth Business Financing Modification Agreement, dated as of July 13, 2017, between Western Alliance Bank and ChromaDex Corporation (incorporated by reference from, and filed as Exhibit 10.7 to the Company's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on August 10, 2017)
10.38	Fifth Business Financing Modification Agreement, dated as of August 21, 2017, by and among Western Alliance Bank, ChromaDex Corporation, ChromaDex, Inc., ChromaDex Analytics, Inc. and Healthspan Research, LLC (incorporated by reference from, and filed as Exhibit 10.2 to the Company's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on November 9, 2017)
10.39	Form of Indemnity Agreement, between ChromaDex Corporation and each of its existing directors and executive officers. (incorporated by reference from and filed as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-37752) filed with the Commission on December 16, 2016)+
10.40	Amended and Restated Non-Employee Director Compensation Policy (incorporated by reference from, and filed as Exhibit 10.4 to the Company's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on August 9, 2018)+
10.41	Membership Interest Purchase Agreement effective as of March 12, 2017, by and among Robert Fried, Charles Brenner, Jeffrey Allen and the Registrant (incorporated by reference from and filed as Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on May 11, 2017)
10.42	Form of Restricted Stock Award Agreement for Robert Fried (incorporated by reference from and filed as Exhibit 10.3 to the Company's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on May 11, 2017)+
10.43	Amended and Restated Executive Employment Agreement, dated June 22, 2018, by and between Robert Fried and ChromaDex Corporation (incorporated by reference to, and filed as Exhibit 10.1 to the Registrant's Current Report on Form 8-K (File No. 001-37752) filed with the Commission on June 28, 2018)+

10.44	Securities Purchase Agreement dated April 26, 2017, by and among the Company and the Purchasers (incorporated by reference from and filed as Exhibit 99.1 to the Company's Current Report on Form 8-K (File No. 001-37752) filed with the Commission on April 27, 2017)
10.45	Registration Rights Agreement, dated April 29, 2017, by and among the Company and the Purchasers (incorporated by reference from and filed as Exhibit 99.1 to the Company's Current Report on Form 8-K (File No. 001-37752) filed with the Commission on May 2, 2017)
10.46	First Amendment to Securities Purchase Agreement, dated May 24, 2017, by and among the Company and the Purchasers (incorporated by reference from and filed as Exhibit 99.1 to the Company's Current Report on Form 8-K (File No. 001-37752) filed with the Commission on May 25, 2017)
10.47	ChromaDex Corporation 2017 Equity Incentive Plan, as amended, and Form of Option Grant Notice, Form of Option Agreement, Form of Restricted Stock Award Grant Notice, Form of Restricted Stock Award Agreement, Form of Restricted Stock Unit Award Grant Notice and Form of Restricted Stock Unit Award Agreement thereunder (incorporated by reference to, and filed as Exhibit 99.1 to the Registrant's Current Report on Form 8-K (File No. 001-37752) filed with the Commission on June 28, 2018)+

10.48	License Agreement dated June 9, 2017, by and between ChromaPharma, Inc. and the Scripps Research Institute (incorporated by reference from and filed as Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on August 10, 2017)*
10.49	Research Funding Agreement dated June 9, 2017, by and between ChromaPharma, Inc. and the Scripps Research Institute (incorporated by reference from and filed as Exhibit 10.6 to the Company's Quarterly Report on Form 10-Q (File No. 001-37752) filed with the Commission on August 10, 2017)*
10.50	Lease, dated July 6, 2017, by and between 10900 WILSHIRE L.L.C and ChromaDex, Inc.
10.51	First Amendment to Lease, dated February 7, 2018, by and between 10900 WILSHIRE L.L.C and ChromaDex, Inc.
10.52	Second Amendment to Lease, dated June 30, 2018, by and between 10900 WILSHIRE L.L.C and ChromaDex, Inc.
10.53	Third Amendment to Lease, dated November 9, 2018, by and between 10900 WILSHIRE L.L.C and ChromaDex, Inc.
10.54	Executive Employment Agreement, dated October 5, 2017, by and between Kevin M. Farr and ChromaDex Corporation (incorporated by reference from and filed as Exhibit 10.1 to the Company's Current Report on Form 8-K (File No. 001-37752) filed with the Commission on October 10, 2017)+
10.55	Securities Purchase Agreement dated November 3, 2017, by and among the Company and the Purchasers (incorporated by reference from and filed as Exhibit 99.1 to the Company's Current Report on Form 8-K (File No. 001-37752) filed with the Commission on November 6, 2017)
10.56	Registration Rights Agreement, dated November 3, 2017, by and among the Company and the Purchasers (incorporated by reference from and filed as Exhibit 99.2 to the Company's Current Report on Form 8-K (File No. 001-37752) filed with the Commission on November 6, 2017)
10.57	Executive Employment Agreement, dated as of January 22, 2018, by and between Mark Friedman and ChromaDex Corporation (incorporated by reference from and filed as Exhibit 10.72 to the Company's Annual Report on Form 10-K (File No. 001-37752) filed with the Commission on March 15, 2018)+
10.58	Executive Employment Agreement, dated as of June 1, 2018, by and between Lisa Bratkovich and ChromaDex Corporation +
10.59	Separation and Release Agreement, dated as of November 20, 2018, by and between Troy Rhonemus and ChromaDex, Inc. +
10.60	Consultant Agreement, dated as of November 20, 2018, by and between Troy Rhonemus and ChromaDex, Inc. +
10.61	Employment Offer Letter, dated as of October 31, 2018, by ChromaDex Corporation and accepted by Matthew Roberts +
10.62	Supply Agreement, dated December 19, 2018, by and between ChromaDex, Inc. and Nestec Ltd. **

21.1	Subsidiaries of ChromaDex Corporation
23.1	Consent of Marcum, LLP, Independent Registered Public Accounting Firm
31.1	Certification of the Chief Executive Officer pursuant to §240.13a-14 or §240.15d-14 of the Securities Exchange Act of 1934, as amended
31.2	Certification of the Chief Financial Officer pursuant to §240.13a-14 or §240.15d-14 of the Securities Exchange Act of 1934, as amended
32.1	Certification pursuant to 18 U.S.C. Section 1350 (as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002)

_____

Filed herewith.

(1)

Plan and related Forms were assumed by ChromaDex Corporation pursuant to Agreement and Plan of Merger, dated as of May 21, 2008, among ChromaDex Corporation (formerly Cody Resources, Inc.), CDI Acquisition, Inc. and ChromaDex, Inc.

(2)

Schedules have been omitted pursuant to Item 601(b)(2) of Regulation S-K. ChromaDex Corporation undertakes to furnishsupplemental copies of any of the omitted schedules upon request by the Securities and Exchange Commission; provided,however, that ChromaDex Corporation may request confidential treatment pursuant to Rule 24b-2 of the Securities Exchange Act of 1934, as amended, for any schedule so furnished.

+

Indicates management contract or compensatory plan or arrangement.

*

This Exhibit has been granted confidential treatment and has been filed separately with the Commission. The confidential portions of this Exhibit have been omitted and are marked by an asterisk.

**

Confidential treatment has been requested with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Commission. The confidential portions of this Exhibit have been omitted and are marked by an asterisk.

Item 16.
Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized, on the 7th day of March 2019.

CHROMADEX
CORPORATION
By: /s/ ROBERT FRIED
Robert Fried
Chief Executive Officer

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Robert Fried and Kevin Farr, and each of them, his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this report, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or either of them, or their or his substitutes or substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant in the capacities and on the dates indicated.

Signature	Title	Date
/s/ ROBERT FRIED Robert Fried	Chief Executive Officer and Director (Principal Executive Officer)	March 7, 2019
/s/ KEVIN FARR Kevin Farr	Chief Financial Officer (Principal Financial and Accounting Officer)	March 7, 2019
/s/ FRANK L. JAKSCH JR. Frank L. Jaksch Jr.	Executive Chairman of the Board and Director	March 7, 2019
/s/ STEPHEN BLOCK Stephen Block	Director	March 7, 2019
/s/ JEFF BAXTER Jeff Baxter	Director	March 7, 2019
/s/ KURT GUSTAFSON Kurt Gustafson	Director	March 7, 2019
/s/ STEVEN RUBIN	Director	March 7, 2019

Steven Rubin		
/s/ TONY LAU Tony Lau	Director	March 7, 2019
/s/ WENDY YU Wendy Yu	Director	March 7, 2019